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STATE OF OHIO

CITY OF YOUNGSTOWN
PERFORMANCE AUDIT

JANUARY 3, 2000

EXECUTIVE SUMMARY

Project History

In September 1998, the mayor of Youngstown contacted the Auditor of State's Office requesting a performance audit be conducted on the City of Youngstown. The mayor was seeking assistance on how to improve the efficiency of operations and effectiveness of delivering services to the citizens of Youngstown, and address the financial difficulties the City was encountering at that time. Meetings between the Auditor of State's Office and City management were subsequently held to discuss the operations of the City and determine the scope of the performance audit. As a result of these discussions, it was determined that the performance audit would focus on the following departments and areas of operation:

- Employee Related Issues
- Income Tax Department
- Purchasing
- Payroll
- Technology Utilization
- Revenue Generation
- Water Department
- Sewer Department
- Engineering, Permits and Inspections
- Street Department

In addition, the City requested certain staffing and operational data, as well as certain operational ratios for the police and fire departments be included as management information only.

During the months of October and November, 1998 the Auditor of State's Office performed an initial assessment of each area to be included within the performance audit. This assessment entailed interviewing appropriate managers, determining staffing levels, analyzing certain financial data and other information, gaining a general understanding of operations, and identifying potential concerns. A formal planning document identifying the specific procedures and performance measures to be used in assessing each area was prepared and presented to the City in December 1998. A meeting was subsequently held to review and approve the planning document with the mayor and finance director.

City Overview

The City of Youngstown (the City) is located in Mahoning County in northeastern Ohio. The City encompasses approximately 34 square miles. The population of the City has decreased dramatically over the past 30 years. For example, the estimated 1998 population of 84,650 represents a 40 percent decrease from the 1970 population of 140,909.

Beginning in the early 1970's, the loss of local industry resulted in significant reductions of revenues for the City. The loss of revenues, coupled with the increasing cost of providing necessary services to the citizens, created large operating deficits which eliminated the City's cash reserves, subsequently resulting in deficit fund balances. In December 1996, the Auditor of State's Office certified that the City had a total deficit of $12.7 million in all funds, which placed the City into fiscal watch. In May 1999, the Auditor of State removed the City of Youngstown from fiscal watch status.

Although a new one-quarter percent income tax passed by the voters in 1996 and reductions in operating costs contributed to the City's emergence from fiscal watch, significant unanticipated cash receipts accounted for the majority of additional revenues received during 1998. These unanticipated cash receipts included a $2.0 million increase in inheritance tax receipts and a $4.3 million worker's compensation rebate, of which $3.2 million was allocated to the general fund. Excluding these unanticipated, and most likely non-reoccurring cash receipts, the City could have potentially realized a total deficit of approximately $7.4 million at the end of 1998.

The results of this performance audit indicate that the City is not maximizing revenue or effectively managing its various departmental and operational areas. These deficiencies indicate that there is a possibility that the City could revert back into fiscal watch. Poor historical management practices, inadequate management systems and lack of sound financial controls have resulted in the City potentially losing approximately $5.5 million in annual revenues. In addition, management's ability to operate efficiently and effectively is severely hindered by ineffective practices and controls, onerous contractual provisions and poor planning and organization. These combined factors have resulted in high staffing levels and operational costs in certain departments, and questionable productivity among employees which costs the City approximately $6.8 to $7.6 million in annual operating expenses.

Although income tax revenue accounts for 68 percent of total revenues recorded in the general fund, minimal effort is exerted to identify potential taxpayers and enforce the mandatory filing requirement. Limited staffing and antiquated systems hinder the City's ability to manage and process income tax information effectively. Based on 1998 collection statistics, only 19 percent of the population in the City filed a return, as compared with a 47 percent average realized by the peer cities. Additional comparisons with peer cities and data provided by external tax collection agencies indicate the potential to collect an additional $5.0 million or more annually in income tax revenue. Given the significant investment which will be needed to address the current deficiencies and the magnitude of

revenue being lost, the City should consider securing the services of an external income tax management agency. In addition, the City is losing potential revenue due to inadequate billing and collection procedures associated with the demolition and vacant lot maintenance programs. These deficiencies have resulted in lost revenues estimated at approximately $500,000 per year.

Staffing levels are inconsistent and need to be examined throughout the City. Analyses of staffing levels indicate certain areas appear to be overstaffed and others appear to be critically understaffed. The water, sewer and street departments all have staffing levels which exceed those of the peer cities. In addition, lack of documentation and effective supervision raises questions about the actual productivity of these employees. Operational ratios and analyses indicate that these departments are providing a comparable, and in some instances a lower level of service, while maintaining a higher number of employees. On the other hand, areas such as income tax, purchasing, technology and engineering do not have adequate staff to enable the respective area to function properly. The City performs fewer permit inspections than the peer cities due to minimal staffing and lack of cross-trained inspectors. Inadequate staffing results in necessary functions not being completed, proper controls not being applied and external agencies being utilized to provide services.

Various contractual provisions within the agreements with the City's eight bargaining units have significant impacts on the City's operations. The following identifies certain of these contractual provisions:

- restrictive job descriptions prevent managers from allocating employees to jobs and functions in the most effective and efficient manner possible
- street and sewer department employees are provided four hours of call out pay regardless of how long the job takes
- a seven-step disciplinary procedure for street department employees hinders management's ability to promptly deal with personnel issues
- a generous vacation leave schedule results in departments having more frequent absences
- the advancement of increased vacation rates to the beginning of the year in which the appropriate anniversary is completed allows employees to utilize leave which has not been earned
- the numerous special pay requirements result in a payroll being processed every week

The City should attempt to negotiate more favorable terms dealing with these issues into future union agreements.

In the past, the City negotiated certain wage compensation packages that included wage freezes. In return, the City agreed to pick up the employees' contributions to the retirement system. The City will maintain the 8.5 percent pickup indefinitely, but future bargaining negotiations must exclude consideration of these payments when addressing cost of living increases. Additionally, the pickup requirement will increase concurrently with salary increases. The City should avoid incorporating this

type of benefit in future contracts. In addition to the retirement pick-up, the City's employee benefit packages have resulted in the highest benefit cost per employee among the peers. Factors contributing to the high benefit cost include offering a costly traditional health care plan, not having an employee contribution toward the cost of the benefit and the lack of a deductible in certain plans.

Historically, workers' compensation premiums have been a significant cost to the City. Since 1993, the City has paid more than $13 million in penalty premiums. By participating in the Bureau of Worker's Compensation (BWC) Premium Discount Program, the City has reduced total premium costs by more than $1.6 million from 1995 to 1998. The City has employed a consultant, at a cost of approximately $75,000 annually for the express purpose of decreasing workers' compensation premium expenditures. However, the consultant does not provide written documentation of his work including the methods employed to control costs. All administration of the program is completed manually and the City continues to be penalty rated. The City should consider hiring a full-time risk manager and implementing other initiatives in order to reduce premium costs.

There is a city-wide deficiency in the manner in which management information is gathered. This information is necessary to ensure necessary services are being adequately performed and employees are attaining a desired level of productivity. The street, water and sewer departments do not have effective systems in place for tracking work orders or monitoring employee performance. Although a computer system was purchased to record, process and track the different permits issued and inspections performed, it has not been fully implemented and the majority of information continues to be maintained manually. This results in inaccurate and fragmented information being maintained and ineffective monitoring of departmental activity. In addition, the manual payroll process is time consuming and lends itself to multiple duplications of effort by City employees. Improving the type of information available is critical in allowing managers to properly monitor their operations and employees.

The deficiency in management information is directly related to the City's ineffective use of technology. The City has not effectively incorporated the use of technology into the daily operations of the various areas. Many systems are antiquated and inflexible. The income tax system does not interface with the City's accounting system. As a result, daily income tax collections are posted to the financial records by means of adjusting journal entries. In addition, the income tax system lacks basic functionality in several areas including managing delinquent accounts, calculating penalties and interest, properly identifying delinquent collections from regular collections, processing taxpayer refunds and tracking estimated tax payments or taxpayers. The payroll system is approximately 20 years old and offers little flexibility in allowing payroll information to be entered. The current payroll process requires significant effort to gather and report time and attendance data before it can be entered into the payroll system. Furthermore, the payroll system does not account for all types of leave available to employees nor does it have the capability to process deduction checks. Despite these needs, the City continues to underfund technology improvements and operations.

The City also performs numerous operating practices which are ineffective and inefficient. Certain of these operating practices include the following:

- a daily job bidding process in the street department prevent managers from logically assigning personnel to jobs based on experience and qualifications and produces significant nonproductive time
- lack of formal purchasing policies and a centralized purchasing function prevents the City from realizing volume discounts, increases clerical duties in the departments associated with purchasing and allows items to be purchased without being subjected to competitive price comparisons
- a short payroll processing lag time, does not ensure timely correction of errors and increases the risk of data inaccuracies
- an unwritten bare pavement snow policy and a monthly meter reading schedule require the City to allocate significantly more resources to these functions as compared with the peers
- a lack of coordination between the vacant lot maintenance program and the housing code inspectors has resulted in inspections of the same property by two different inspectors
- an ineffective land bank program has resulted in the City becoming the caretaker of large tracks of vacant, underdeveloped land.

The City also suffers from a lack of strategic planning. There is no comprehensive planning of technology for the various systems with the City. A comprehensive technology plan would help ensure systems are compatible, adequate support is available and that systems will be able to operate on the proposed wide area network (WAN). The creation of a chief information officer position would assist the City in this effort. The street department does not create an annual planning schedule to identify necessary projects and to determine how the workforce will be allocated to complete these projects. Although the current age and condition of the water and sewer infrastructure indicate that significant future investment will be needed to bring these systems up-to-date, neither department has developed an adequate strategic plan to address future capital replacement needs. For example, the estimated future capital cost the City is facing related to waterline replacement only is in excess of $160 million. A properly developed capital strategic plan should detail the current status of the infrastructure, and identify necessary repairs, replacements and resources. The departments should then incorporate a capital needs replacement component into their rate structure.

In general, the City must reconsider the manner in which the various areas are being managed and operated in their attempt to control operating costs. This performance audit provides a series of recommendations with possible revenue enhancements of approximately $5.8 million and potential cost savings of $6.8 to $7.6 million. In addition, other recommendations to improve operations would require the City to incur implementation costs ranging from $1.56 to $1.63 million. City management should consider all recommendations presented in this report in addressing the efficiency and effectiveness of services provided by the City and its employees.

Summary Result

The summary result of the performance audit is contained within pages 1-6 through 1-34. The performance audit focused on ten different City departments or areas of operations. A summary of background information, major findings, major commendations, major recommendations and financial implications is provided for in each section. However, a thorough analysis of each department or area of operation, including detailed findings and recommendations, is contained within the corresponding section of the report. All interested parties are encouraged to read the entire report.

The results of this performance audit should not be construed as criticisms of the City. The performance audit should be used as a management tool by City officials in their attempt to efficiently provide services to the citizens of Youngstown.

A table representing a summary of the financial implications of the recommendations is presented on pages 1-34 through 1-38. However, the performance audit also contains a number of recommendations which may not generate estimable cost savings but will result in enhanced service delivery within City operations. If implemented, these recommendations would improve the operational efficiency of the City of Youngstown and its effectiveness in providing services to the community.

The police and fire department benchmarking section was developed at the request of the City of Youngstown. This section provides certain staffing and operational data, as well as certain operational ratios for the police and fire departments at the City of Youngstown and the peer cities. No conclusions or assessments were made on the data. Rather, it is being provided as management information to the City of Youngstown. Therefore, no summary of results is being presented for that section.

Employee Related Issues

Background: This section focuses on employee related issues within the City of Youngstown (the City) and is divided into three separate sections: (A) Contractual Issues, (B) Benefits Administration and (C) Workers' Compensation.

Findings: City of Youngstown employees are represented by eight distinct bargaining units and the City has negotiated identical severance payout packages for all employee bargaining units. The contracts state that when an employee separates from employment, the City shall pay 35 percent of the value of their accumulated sick leave. Aside from a provision in the AFSCME 2312 contract which states that the accumulation of sick leave is limited to 187.5 days for employees hired after June 30, 1993, none of the contracts limit the amount of sick time employees may accrue.

In 1998,City of Youngstown employees averaged 8.5 sick days taken. The street and waste water departments had the highest average sick leave use with an average of 11.7 sick days per employee. Overtime costs at these departments were significant due, in part, to a high number of sick day occurrences. Each union agreement contains an attendance incentive for employees. Depending on the agreement, an employee may be eligible for the incentive if they do not take any sick leave for three to six months. The Teamsters and AFSCME 2726 agreements stipulate that employees shall maintain a minimum of 120 hours of accrued sick leave. A medical excuse is required by City Administrative Code for an employee using three or more consecutive days of sick leave. However, provisions in the union agreements only require a medical excuse when the employee's supervisor deems it necessary. When calculating overtime, the City considers all hours on active pay status, excluding sick leave, as hours worked which is greater than the provisions outlined in the FLSA.

Currently, annual evaluations are not being completed for City employees and the union agreements are silent on the issue. Wastewater and street department employees receive a minimum of four hours at the applicable overtime rate when called out to work at a time when they are not scheduled. Wastewater employees who are scheduled by management to be "on-call" are paid $80.33 weekly. Consequently, every employee who is on "standby" for an evening receives this weekly amount, even if no work is required for the week. Certain of the unions have negotiated a "meal ticket" policy in which $5.00 or more are provided to employees upon completion of two additional hours worked beyond the standard eight hour day and for every four hours thereafter. The City does not require any documentation of meals purchased.

Certain of the unions have negotiated a wage compensation package that froze wage increases. In return, the City pays the employee portion of their pension plan. The City will maintain the 8.5 percent employee pension contribution indefinitely, but future bargaining agreements may not consider these payments when negotiating salary increases. Additionally, as salaries increase, pensions will increase.

The City contracts with Medical Mutual of Ohio for its hospitalization benefits which offers two plans; a Preferred Provider Organization (PPO) and a traditional plan. The City's annual benefit cost per employee of $5,770 is the highest when compared to the peer cities and can be attributed to the fact that the City offers a costly traditional plan, full-time employees are not required to contribute towards the monthly medical premiums and the medical plans require minimal to zero employee annual deductibles. The City of Youngstown provides a hospitalization benefits waiver to employees who opt out of the medical plan in favor of a spouse's medical plan.

The City of Youngstown has been substantially penalty rated since 1991. Since 1994, the City has significantly reduced the number of lost time claims incurred which has resulted in lower premiums for the City. In an effort to reduce premium costs, the City entered the Premium Discount Program, has encouraged participation in the Safety Steering committee and has recently reassigned a portion of one of the City attorney's duties to the position of risk coordinator. To assist the City in limiting

the liability associated with workers' compensation claims, the City of Youngstown has employed a consultant, at a cost of approximately $75,000 annually, for the express purpose of decreasing workers' compensation premium expenditures. However, the workers' compensation consultant does not provide written documentation of his work, reports are never written about the methods by which the consultant is attempting to control workers' compensation costs, all administration of the workers' compensation program is completed manually and the City does not currently track the running total of medical costs paid on claims and corresponding vendor listing or care giver. Although the City has taken steps to reduce premium costs, the City continues to be penalty rated.

Commendations: Controlling sick leave abuse remains an important technique in the promotion of operational efficiency. The street department has begun taking the necessary steps in addressing sick leave abuse problems. By implementing a hospitalization benefits waiver, the City of Youngstown was able to save approximately $219,000 in 1998. The Safety Steering committee, which was once sparsely attended and of little value, has become a visible forum for which to address workers' compensation issues.

Recommendations: The City should consider limiting the severance payout by introducing a maximum sick leave reimbursement similar to those offered by the peer cities. The City should make reducing the amount of sick leave used a high priority. In order for sick leave management to be effective, Youngstown should review and implement city-wide sick leave policies. The City should review existing incentive plans and consider restructuring agreements to produce more effective incentives and reduce the costs associated with sick leave abuse. Because of the overtime currently being expended at the City, Youngstown should review its current overtime policy and consider negotiating the policy to be more in-line with the guidelines set forth by the FLSA.

Four hours for call-out payment may be overly-generous and differs from the other contracts within the City as well as peer city agreements. Consequently, management should collaborate with the United Steelworkers and the Teamsters to create alternatives to the current policy. The City could consider renegotiating the "meal ticket" program by restructuring the policy to provide "meal tickets" only after the first four hours and require employees to submit receipts for all meals purchased.

Should future financial situations warrant, the City could collaborate with the unions to reduce the burden of the full employee pension plan contribution to bring compensatory levels into line with the remaining peer districts. During the next round of negotiations, the City should work with the unions and the health care provider to establish co-pay amounts, deductibles for the PPO plan, higher deductibles for the traditional plan and out-of-pocket maximums which would have the effect of reducing monthly premiums.

To effectively control workers' compensation costs, accident prevention should be the highest priority. The City should become more proactive in addressing safety issues in the work place and implement other initiatives in order to reduce premium costs. Such initiatives could include creating

a claims trending program, establishing an aggressive claim closure strategy, re-designing the modified duty program, surveying employees on safety and health issues and using the BWC to assist the City in developing effective safety and training programs. Because of the significant workers' compensation costs, the City should perform a cost-benefit analysis to determine if a full-time risk manager would be warranted. While it has been established that the consultant has been effective in settling claims that have gone to litigation, a number of additional responsibilities are not being completed. Documentation of the consultants duties would benefit each party by introducing evidentiary matter to support the financial merit of the City's workers' compensation consultant. City officials should also monitor the consultant's contractually-obligated responsibilities to ensure each is completed.

Financial Implications: It is estimated the City could realize annual cost savings $2.3 million by continuing to improving the management of its workers' compensation program. Additional annual cost savings between $575,000 and $1.1 million could be realized by implementing an employee insurance contribution and reducing the amount of sick leave utilized city-wide. In addition, management's ability to remove certain costly provisions from future union agreements would result in annual savings between $115,000 and $227,000, as well as provide cost avoidances estimated at $521,570.

Income Tax

Background: The income tax department is charged with the collection, audit and enforcement of the 2.25 percent municipal income tax pursuant to Chapter 181 of the Youngstown City administrative code. Employers within the City are required to withhold income tax on employee compensation and remit the tax to the City either monthly or quarterly. Other individual taxpayers are required to pay their estimated tax quarterly if the employer does not withhold taxes from their compensation. Income tax proceeds are to be recorded in the fund designated by City ordinance and/or authorized by the City's voters. The City has a mandatory filing requirement and allows a credit not to exceed 100 percent of the amount paid to another municipality up to 2.25 percent. The income tax department currently operates with 4.25 FTEs with an annual operating budget of about $252,000 in 1998. Gross income tax collections totaled $31.9 million in 1998.

Findings: Municipal income tax revenues are crucial to the City's ability to operate financially, as they represent about 68 percent of general fund revenues and 50 percent of total governmental fund revenues. In November 1996, City voters approved an increase of the income tax rate from 2 to 2.25 percent, effective January 1, 1997, to provide additional revenue for City operations. However, an analysis of the actual collections for 1997 and 1998 indicates potential lost revenue totaling $2.0 million for this time period. Additionally, 1998 collection statistics show that only 19 percent of the population in the City of Youngstown filed a return, as compared with the significantly higher peer average of approximately 47 percent. These statistics, in conjunction with the lack of adequate procedures to ensure all income revenue is collected and other operational inefficiencies, indicate that

there is a potential to enhance current income tax collections. Because the City cannot adequately identify potential taxpayers to determine the amount of additional revenue that could be collected, assumptions were made to perform an analysis that suggests potential additional annual income tax collections of approximately $5.0 million or more.

Several factors have contributed to the minimal staffing levels which currently exist in the income tax department, including a city-wide layoff and a hiring freeze. As a result, the income tax department personnel perform primarily clerical functions. Overtime, which is paid at a rate of 1.5 times the regular hourly wage, has ranged from 11.0 percent to 16.2 percent of total departmental payroll expenditures over the past four years, due to increased workloads during the peak season. In addition, there is an absence rate of 15 percent within the department and a pending loss of three of the four full-time individuals due to retirement eligibility.

Operationally, the income tax department is not performing many activities to identify potential taxpayers, enforce mandatory filing, monitor estimated taxes, review refund payments or manage delinquent accounts. The total amount of refunds issued and the number of delinquent accounts have significantly increased in the last few years. Also, the amount of interest and penalties is low compared with the peer cities, supporting the lack of effective monitoring of tax accounts. A contributing factor to the department's limited ability to properly manage income tax collections is an income tax system developed in 1976 that has minimal functionality and cannot process refunds. Although the City utilizes an external collection agency, the agency does not appear to be effectively collecting revenue on behalf of the City.

Recommendations: If the City intends to maintain income tax operations in-house, it needs to expand and reorganize the existing income tax department. One proposed organizational structure would increase the department's staffing level to 15 full-time positions from the current 4.25 FTEs, and would provide a means to identify additional taxpayers, enforce the mandatory filing requirement, monitor estimated taxes, manage delinquent accounts and ensure the accuracy of the filed returns. The City needs to implement such procedures to maximize income tax collections. Additionally, the City should immediately develop a staff contingency plan to deal with the high number of absences and pending loss of employees in the department due to retirement. Regarding the use of better technology to improve operations and increase productivity, the City should consider enhancing the current in-house system or purchase a vendor-supplied income tax application.

Given the extent of the City's operational and financial challenges they should strongly consider contracting for income tax management services. Through a better managed operation by an independent external provider, the City of Youngstown could achieve significantly increased income tax revenue. Contracting with an external provider would eliminate the need for a new income tax system and salaries and benefits associated with an expanded in-house income tax department. Other significant recommendations include the following:

- ! Pursue alternatives to paying overtime to full-time staff such as hiring seasonal or temporary workers
- ! Process income tax refunds through a new income tax system
- ! Perform the majority of delinquent income tax collection activity in-house

Financial Implications: It is estimated that the implementation of the recommendations in this section could result in potential additional income tax revenue of approximately $5.0 million or more annually. In addition, alternatives to paying overtime during peak season could generate annual cost savings of between $6,600 and $8,600. One-time and annual implementation costs range in total from $970,000 to $976,000. These costs include an expansion and reorganization of the existing income tax department, purchase of a new income tax system and utilization of an external provider for income tax management services. The magnitude of the costs associated with some of the recommendations will be affected or offset by implementation of other interrelated recommendations. For example, utilization of an external provider for income tax management services would eliminate the need for a new income tax system as well as an expansion of the existing income tax department.

Payroll

Background: The City of Youngstown does not have a separate payroll department or a human resources department. The operation of the City's payroll processing is the responsibility of the finance director, with approximately 1.6 FTEs involved in payroll processing in the finance department. Each City department is responsible for collecting time and attendance information and tracking leave balances. With the exception of the streets department, the City uses a manual, paper-based system to track employee time and attendance. The City pays over 800 employees each pay on a biweekly, 26 pay period cycle. City employees are paid every other Friday, with a one week lag in payroll processing. In FY 1998, an additional 62 pay runs were processed for special pays. The City paid over $29 million for payroll in FY 1998.

Findings: The current method for collecting time and attendance information varies from department to department and is a labor-intensive process involving some duplication of effort. Currently, only the streets department submits payroll electronically via the key master system. The payroll system developed in 1975 represents old technology and has limited functionality. Only sick and vacation balances are tracked and maintained in the payroll system and the system does not currently print deduction checks. During FY 1998, some deduction types withheld by the City on behalf of the employees were not mandatory.

During FY 1998, 62 special payrolls were processed in addition to the 26 biweekly pays. As a result, from October 1998 through January 1999, the City processed a payroll every week. Although the City has some controls over payroll processing, errors are consistently noted and corrected prior to check distribution. The short one week lag time in payroll processing does not ensure timely correction of errors, requires payroll data to be estimated and increases the risk of data inaccuracies.

In addition, there appears to be limited controls over the calculation and verification of severance pay, which can be as high as $55,600 for an individual employee. The City is in the process of pursuing direct deposit for its employees.

City Council per the City charter authorizes new positions. However, there is a significant difference between the City's number of authorized positions versus the number of actual positions. For example, the water department's actual staffing level is 50 percent of authorized and the computer services department's actual staffing level is 52 percent of authorized.

Recommendations: The City should investigate installing an automated time and attendance system throughout the City. If the City does not install such a system, it should consider expanding the use of the key master system and having all departments submit payroll electronically. Regarding the use of additional technology to improve operations and increase productivity, the City should consider (1) potentially enhancing the current system in-house, (2) purchasing a vendor-supplied integrated payroll/human resources application or (3) contracting with an external vendor for payroll processing and management services. The new payroll system should be used and fully relied upon as the official record for all leave information within the City. In addition, the City should continue to pursue direct deposit and consider requiring all employees to use direct deposit.

Other significant recommendations include the following:

- Consider increasing the current one week lag time to two weeks to allow for additional time to ensure the accuracy of payroll data
- Limit the number of times special payrolls are processed by combining special payrolls with the normal pay check processing
- Strengthen control procedures over the severance payout process by tracking balances in the payroll system and/or implementing cross-checks of departmental leave balances
- Improve procedures over the establishment and maintenance of authorized positions to facilitate more effective position control
- Review deductions to differentiate between mandatory and non-mandatory deductions. The City should only process mandatory deductions through the payroll system.

Financial Implications: It is estimated that the implementation of the recommendations in this section would involve implementation costs of approximately $76,000 for an automated time and attendance system. Annual cost and labor savings of about $38,600 could be realized from increased efficiencies in selected activities and maximizing use of direct deposit.

Procurement

Background: The City does not have a centralized purchasing department. The finance department is responsible for handling purchases which require competitive bidding and for the payment of all

vendor invoices. Each department in the City is responsible for the acquisition of goods and services that do not require competitive bidding. The City does not maintain a centralized warehouse.

Findings: Youngstown does not have formal, city council approved purchasing policies. However, the finance department has developed draft policies which include a requirement that purchases over $2,500 but not exceeding $15,000 receive a minimum of three written informal quotes. It appears that there is some inconsistency at the department level in complying with this requirement. While the City subjects some commonly used items to competitive bidding, office supplies are negotiated on an individual basis by each department.

The current purchasing process is manual and allows the departments to contract with vendors without obtaining the finance director's certification that sufficient funds are available. Also, the current process does not allow for the encumbering of funds before the City becomes obligated for a purchase. As a result of these deficiencies, Youngstown's financial audit disclosed that calendar year 1997 was closed with 34 funds having deficit balances.

In addition, contrary to ORC requirements regarding the legal level of control, the authority to transfer funds in certain circumstances has been assumed by the finance director. Financial statement audits conducted in 1995, 1996 and 1997 identified many other noncompliance conditions and internal control weaknesses which continue to remain uncorrected.

Commendations: The City uses competitive bidding to obtain discounts and other favorable purchasing terms for some of the common items used by the departments. The finance department issued a formal memorandum addressing the importance of taking advantage of vendor discounts.

Recommendations: The City should consider implementing a centralized purchasing process. By eliminating various unnecessary tasks, it appears that the additional staffing requirements associated with centralized purchasing can be met by reallocating existing staff and potentially hiring an additional individual. If the City chooses not to implement centralized purchasing, it should modify the current process so that the City is not obligated for purchases until after requisitions have been properly approved, encumbered and certified.

Other significant recommendations include the following:

- Adopt formal purchasing policies which define the appropriate thresholds and are enforced by the board of control as well as the finance department
- Utilize competitive bidding to negotiate just-in-time agreements for office supplies
- Investigate the feasibility of implementing an automated purchasing system
- Process budgetary transfers only after receiving city council approval
- Address and rectify the instances of noncompliance and internal control weaknesses identified in this and previous audits

Financial Implications: It is estimated that the implementation of these recommendations will result in additional annual savings between $70,000 and $86,000 with implementation costs of approximately $63,000. The majority of the cost savings represent discounts that could potentially be obtained by negotiating just-in-time contracts for office supplies. The implementation costs consist primarily of annual expenditures associated with hiring an additional buyer for centralized purchasing and a one-time expenditure to implement an automated purchasing system.

Technology Utilization

Background: At the City of Youngstown, technology implementation and management are performed by the Youngstown computer services division (YCS). The City has 11.0 full-time equivalent technical positions. Three of the positions are funded by the water department but report to the director of YCS. The City does not have a wide area network (WAN). However, the water, fire, police, engineering and sewer departments have local area networks (LANs). The City uses an IBM ES/9000 platform to process the major governmental operations applications. Youngstown has approximately 224 workstations available for use by City personnel.

The City uses several commercially available software packages as well as applications programmed in-house. Commercial software is used by the finance department for accounting and budgetary operations, the water department for utility billing and by the fire, police and sewer departments and the municipal courts. The remainder of the mission critical software (payroll, income tax) and several databases were developed in-house. The City of Youngstown spent more than $463,000 for the implementation and maintenance of technology from the general fund in FY 1998.

Findings: The City does not have an up-to-date comprehensive strategic technology plan or a chief information officer (CIO) responsible for city-wide technological operations. In addition, the City does not have a technology steering committee. The City does have a Data Processing Board (DPB) consisting of the mayor, finance director and law director. The director of YCS has extensive knowledge of the City's technology systems and operations. However, there is no formal backup person to the director who currently possesses an equivalent level of knowledge and experience. As a result, the City faces a significant risk to the operation of its technological environment if the director is absent due to job separation or an extensive leave of absence. In addition, there are insufficient technical support positions to support the current technology available at the City.

The City does not have formal written standards for hardware, operating systems or software. Youngstown does not have a centralized inventory of software, software licenses or hardware warranties and has no centralized process for computer repair or centralized help desk function. The City does not have a standardized office automation software package. In addition, there is no computer-aided dispatch application for 911 emergencies or a city-wide e-mail system. Benefits could be realized from the increased use of technology in the City's day-to-day operations. However, the City has not allocated sufficient funds to address the technology needs of the City.

The City has several local area networks (LANs) that operate independently and are not connected to a WAN. The City assigned a law department staff member to manage the Year 2000 compliance efforts and has performed a documented city-wide Year 2000 assessment with cost estimates of approximately $723,000 to bring mission critical systems into compliance. However, the total cost to the City in the event those remediation efforts fail is not known. The Year 2000 assessment document includes application upgrade costs, new application costs, implementation costs, funding sources and an implementation timetable. However, the plan does not contain a disaster recovery component.

Commendations: The City has recognized the importance of addressing Year 2000 compliance issues, making it a priority and designating a Year 2000 project manager to coordinate efforts to ensure timely compliance.

Recommendations: The City should develop a comprehensive long-term strategic technology plan that incorporates departmental systems. In essence, the plan should describe the City's long-term objectives and how technical staff, funding and resources will help the City achieve these long-term objectives. Once the strategic plan is developed, the City should ensure adequate funds are provided for technology capital and operational needs. In addition, the City should establish a full-time chief information officer position that reports directly to the mayor. Currently, the director of YCS reports to the director of finance. Having a reporting relationship directly to the mayor allows key technology issues to receive the high-level attention necessary to ensure that major City and departmental technology purchases will help achieve the City's broader goals. Technical support staff positions should be added to support the City's technology infrastructure and its users.

The City should consider creating a technology steering committee from various functional and departmental areas. The DPB membership and scope of duties could be expanded to form the technology steering committee. The City should designate backup personnel for the YCS director's position functions and the programmer. In addition, backup personnel for programming functions should be designated so that the risk of a disruption to operations associated with only having one or two staff familiar with the in-house applications is minimized.

The City should perform an analysis of the current technology infrastructure to determine how a WAN could connect LANs and support existing and future applications like e-mail and Internet access. This analysis could then result in an action plan for any necessary upgrades to current LAN networks and the development of a WAN. The City needs to continue to make the Year 2000 a high priority critical project by developing a disaster recovery plan should critical systems fail. Adequate funding should be estimated and set aside to address this problem. Other significant recommendations include the following:

- Develop and enforce formal written standards for hardware, network operating systems and software.

- Develop a comprehensive listing of software and software licenses used throughout the City.
- Track warranty information for computer hardware in a centralized database.
- Centralize the repair of technology equipment.
- Develop a help desk function and assign this responsibility to designated YCS personnel.
- Review the 911 dispatch process and investigate the purchase and implementation of a computer-aided dispatch system for its public safety departments.
- Offer e-mail to all appropriate staff.

Financial Implications: It is estimated that the recommendations in this section of the report could cost the City between $207,000 and $265,000. This estimate contains an estimated annual cost of between $84,500 and $110,500 for a full-time CIO, depending on whether the City promotes from within or hires a new individual. In addition, there are one time costs between $32,000 and $35,000 for technology enhancements, software purchases and staff training. The total cost to the City of making its systems Year 2000 compliant is not currently known.

Revenue Generation

Background: The City of Youngstown's total general fund revenue in 1998 increased by approximately 21 percent over 1997. However, the majority of the additional revenue was attributable to two unanticipated cash receipts; a $2.0 million increase in inheritance tax receipts and a $4.3 million worker's compensation rebate, of which $3.2 million was allocated to the general fund. Excluding the unanticipated cash receipts, the operating revenues of the City have been stagnant over the past three years. While there were some inconsistencies in how various revenue sources were recorded, the City of Youngstown received the second lowest revenue amount per citizen when compared to the peers.

Findings: The City does not have adequate procedures in place to ensure available revenue sources are maximized. Estimates indicate the City could realize an additional $5.0 million or more annually in income tax revenue by improving the operations of the income tax department. Inadequate billing and collection procedures in other departments have resulted in the annual loss of revenue estimated at $500,000. Also, potential revenue is being lost due to poor monitoring and management practices regarding delinquent accounts.

The City is not properly monitoring and enforcing its license and permit requirements. Comparisons with peer cities indicates the City is receiving the lowest revenue amount associated with licenses and permits. Contributing factors include controls not being in place to ensure requirements are adhered to and the lowest license fee structure among the peers.

Recommendations: The City should consider the recommendations throughout the performance regarding maximizing revenue and identify other means to ensure all potential revenue is identified and collected. The City should also develop formal delinquent account and write-off policies. In an

attempt to maximize internal collections efforts, the City should consider centralizing billing and collection efforts under the finance department. Once an account is assigned to the outside collection agency, the City should have procedures in place to ensure the agency is performing the necessary steps in their attempt to collect.

The City should institute adequate procedures and controls to ensure all contractors performing work within the City are properly licensed and all projects being completed obtain the necessary permits. Furthermore, the City should consider enacting a license fee structure more in line with those of the peer cities.

Other recommendations include the following:

- Consider increasing the fee charged for towing and impounding of vehicles
- Review the current method of charging enterprise funds for general fund expenditures
- Perform cost-benefit analysis of bring the management of parking lots and meters back in-house
- Identify ways in which the financial burden to the City associated with the Wick building could be eliminated.

Financial Implications: It is estimated that the implementation of these recommendation will result in additional annual revenue of $181,000, one-time revenue of $1,600 and an annual cost avoidance of $26,000.

Water Department

Background: The Youngstown Water Department (YWD) serves approximately 58,000 customers in Mahoning and Trumbull counties. Unlike many water departments which maintain reservoirs and treat water, YWD acts solely as a distributor. Water is purchased from the Mahoning Valley Sanitary District (MVSD). The primary functions of the department include operating pump stations and holding tanks, repairing or replacing water lines as needed, reading each customer's water meter and pursuing delinquent accounts. Water departments are traditionally organized within municipal governments as enterprise operations. The department is intended to function like a private business, relying on charges for services to support the costs of operations. Over the last several years, the number of industrial, commercial and residential customers, as well as the amount of water sold, has declined substantially.

Findings: YWD appears to have a disproportionately large number of employees. Staffing levels per 10,000 customers are maintained above the peer average and YWD appears to be overstaffed by the equivalent of 8.5 FTEs specifically in the areas of meter readers, turnkeys and construction. Salary costs are also four percent higher than peer rates. In 1998, YWD employees averaged 6.52 sick days for a total of 756 sick days taken, contributing to high departmental costs. While some employees of

the department are EPA certified, a large number of employees are not certified for their positions. Lack of training prior to employment causes the City to incur costs for training and creates a greater risk of performance errors.

The system for collecting, recording and depositing water payments is cumbersome and inefficient. Collection on delinquent accounts is not governed by specific written policy and collections efforts of delinquent water accounts have been inadequate. As a result, the department has a large number of outstanding accounts amounting to approximately $1.9 million. Rental properties have become a significant collection issue due to a consent decree and the City not having a coherent strategy addressing the collection of these accounts.

Construction is the largest section within the department. Due to the large percentage of cost incurred by the section, employee productivity is particularly important to managing department wide costs. Work orders in the construction section are not tracked and information on overtime is not recorded. Similarly, productivity is not monitored in the meter maintenance section. Also, the City currently reads meters on a monthly basis, contributing to higher operating expense and labor costs.

The department's Customer Utility Billing System (CUBS) has several functions including a billing system and other related information. The system also has report writing capabilities. CUBS may be underutilized by the department. The department does not adequately distinguish between regular charges and late fees, prohibiting an accurate assessment of collection efforts.

YWD estimates of miles of pipe replaced over the past several years indicates that the department is becoming increasingly focused on patching severe leaks, rather than maintaining a reasonable capital replacement schedule. YWD loses approximately 25 percent of the water purchased from MVSD to leaks in the system. The rate of water pipe replacement is critically lacking. In the last 15 years, only five miles of pipe has been replaced. At this rate, it will take the City more than 2,000 years to replace all sections of pipe. Estimated future capital costs associated with replacing water lines alone exceeds $160 million.

Commendations: The MIS section appears to provide a high level of service to the rest of the department. All customer billings and related account information is maintained by this section. The section also has planned well for Year 2000 contingencies.

Recommendations: The YWD should review its current staffing level and employee compensation to identify areas where savings could be realized. By establishing productivity standards and an effective work order tracking process, the department could potentially reduce one field maintenance and three meter reading positions. Cross training field employees to allow them to perform plumbing inspections could reduce one clerical position. Implementing a bi-monthly meter reading schedule could result in an additional reduction of three meter readings positions. Requiring delinquent payments be processed through the normal collection process could potentially reduce four turnkey positions. Eliminating the practice of painting all vehicles flourescent green would reduce one garage

position. In addition, employee productivity could be further enhanced by developing or negotiating more flexible management rights and authority. Limiting cost of living adjustments in future negotiations would bring employee compensation levels more in line with those of the peers. Efforts to manage leave time and requiring employees to be properly certified could increase productivity and reduce operating costs.

The department must improve its billing and collection efforts, particularly as they pertain to delinquent accounts. A more aggressive and coordinated approach is needed to ensure payment is received for service provided to rental properties. Adoption of a City ordinance which holds property owners ultimately responsible for payment of water charges is one option to address this issue. The department should improve procedures governing delinquent accounts and the working relationship between the department and the collection agency which could increase collections on these accounts. Proper policies to address delinquencies should be implemented and the department should account for delinquent charges separately, enabling the department to better manage their delinquent accounts. The YWD should consider instituting additional payment options and establishing a lockbox arrangement with a bank to improve customer service and increase collection efficiencies.

Given the age and condition of the City's water infrastructure, the City must emphasize capital planning, replacement and repair. A comprehensive capital plan should be implemented which addresses the capital needs of the department and dictates when assets should be repaired or replaced. Water rates should be established to provide necessary funds to maintain an adequate infrastructure. The State Issue II program could be a potential funding source for capital improvements. The department should allocate additional resources dedicated to leak detection to allow the department to identify significant deficiencies in the infrastructure to reduce operating costs associated with water purchases.

Other recommendations include:

- Extend the sick leave incentive period to one year instead of quarterly.
- Track the number and types of services provided by customer service representatives to improve accountability.
- Assess the current vehicle utilization procedures including establishing a motor pool, utilizing vans instead of individual vehicles, and potentially reimbursing employees for using their private vehicle.
- Establish an independent body to review water and sewer rates.
- Utilize the management reporting capabilities of the current system, provide other departments with access to needed information and ensure the system is Year 2000 compliant.
- Implement automated meter readings to improve departmental efficiency.
- Update the department's policy manual and utilize the resources available through their membership in the AWWA.

Financial Implication: Increasing employee productivity and altering department procedures could produce annual cost savings of $453,000 and one-time cost avoidances of $44,000. Negotiating limited cost of living increases could result in a cost avoidance of $651,027 over the next three years. Reducing water loss by 50 percent through leak detection and repair could result in annual cost savings of $229,000 to $273,000. Implementing the remaining recommendations could result in additional annual revenue of $160,000, a one-time cost avoidance of $15,000 and require $6,000 in implementation costs. In addition, the City is facing significant costs associated with bringing the water infrastructure up-to-date. The total cost to bring the entire infrastructure up-to-date can not be accurately estimated. However, estimated future capital cost associated with water line replacement alone exceeds $160 million.

Sewer Department

Background: The Youngstown sewer department (YSD) is responsible for maintaining all City sewer lines, pump stations and the overall operation of the waste water treatment facility in compliance with EPA standards. The sewer system consists of 396 miles of combined sanitary and storm and storm lines which date back to the early 1900's. There are eleven pump stations that convey an average of 29 mgd (1998) of sewage to the plant. The department employs 82 personnel.

Findings: The YSD has the highest total number of employees when compared to the peer cities. It does not appear that the current make-up and number of YSD employees is effective. When analyzing and comparing staffing categories to the peer cities, the plant operation, plant maintenance, and sewer maintenance categories appear to be disproportionately high. While the YSD has some unique operational characteristics that may justify slightly higher staffing levels in some categories, analyses performed on work processes show potential for some staffing reductions. The YSD is currently in litigation with the federal and state EPA for having sewer overflows and untreated sewage discharges into the Mahoning river. The final resolution of this litigation may impact the City's ability to implement the staffing reductions recommended in this report.

All 82 YSD employees are eligible for overtime. The YSD has the highest overtime among all departments in the City of Youngstown and among the peer city sewer departments. The following are factors which contribute to these high overtime costs:

- Managers are eligible to receive overtime pay
- Sewer maintenance employees are paid a minimum of four hours at overtime pay for call-outs, regardless of time worked
- No formal policy exists for verifying sewer complaints which result in emergency call-outs
- Two employees are typically sent on each emergency call-out
- A total of 961 sick days were taken which equates to an average of 11.71 days per employee.

The YSD is not effectively using technology to improve its operational efficiency. The department is not currently using a software system to track works orders. In 1984, OSC Computer Services developed a software package to track work orders and maintain a parts inventory system; however, the system was abandoned approximately one year after its implementation. Current work orders are filed manually and are not effectively used for identifying problems areas, providing preventive maintenance, and preparing a repair and replacement schedule.

The YSD has not conducted adequate capital planning. A geographical information system (GIS) map used to located sewer mains as well as characterize the size and patterns of hydraulic bottle necks in the sewer system has not been updated since 1984. This map is considered a vital tool in capital planning in that it provides a visual map by which YSD can identify problem areas and develop preventive maintenance and replacement schedules. Further, the YSD currently transfers $400,000 from the general sewer operating fund to an operations and maintenance fund. As of May 31, 1999, the fund balance was $1,364,587. According to department officials, these funds are to be used for capital repair and replacement expenditures. However, department officials indicated that no policy or plan exists for the use of these funds.

Recommendations: The YSD should conduct a comprehensive review of each operational section to determine the minimum staffing level required to maintain functional effectiveness. This review should be done in conjunction with the urgent needs identified by the EPA to determine the proper mix of position reductions and reassignments which would allow the city to demonstrate its commitment to full compliance with all pertinent sewer regulations. Each functional area should be examined individually, including an analysis of job descriptions and overlapping duties, a review of organizational structures and a determination of cross training opportunities. The long-term goal should be to maximize YSD's operational efficiency and effectiveness while ensuring full compliance with all pertinent EPA standards and mandates.

In order to reduce high overtime costs the YSD should implement the following recommendations:

- Exclude managers from overtime eligibility
- Reduce the number of hours paid for emergency call-outs
- Develop a formal policy for verifying the need to respond to emergency call outs.
- Monitor sick time use for potential abuse and implement disciplinary procedures

The YSD should take immediate steps to implement the technology needed to improve its operational efficiency. Implementing a work order system would allow the department to move toward identifying related sewer and plant maintenance issues and to plan for capital improvements within its overall operation. Additionally, updating its GIS mapping would allow the department to locate all sewer mains and to characterize the size and patterns of hydraulic bottlenecks in the system. Once these recommendations are achieved, the YSD should work toward developing a preventive maintenance schedule and systematically report sewer and plant capital needs to the engineering, permits, and inspections department for inclusion in a comprehensive capital improvement plan.

Other related recommendations include:

- Reorganize staff to facilitate planning and implementation of technology
- Establish a system for tracking data on the number of miles of sewer lines maintained, repaired and replaced
- Develop a formal preventive maintenance schedule, a repair and replacement plan and proformas which indicate funding sources based on appropriate rate structures.
- Establish operating and capital budgets which identify capital replacement funds and include working capital reserves
- Adopt a formal policy to guide use of the operation and maintenance fund

Financial Implications: It is estimated the implementation of the recommendations in this section of the report would result in annual savings of $559,000 to $672,000 by increasing employee productivity and reducing overtime. Total savings could vary depending on the number of positions reduced, recognizing that final staffing levels must be consistent with the outcome of the EPA litigation. In addition, the City is facing significant costs associated with bringing the sewer infrastructure up-to-date.

Engineering, Permits and Inspections

This section is divided into two separate subsections: (A) engineering division, (B) inspection and permit administration.

A. Engineering Division

Background: The engineering division currently operates with a staff of six and is responsible for planning, designing and maintaining records for public improvements made to all City roads, bridges, sewer systems, waste water treatment plant and related infrastructure facilities. It also is responsible for reviewing and approving all construction plans for residential, commercial and industrial development within the City.

Findings: The six employees consist of two class two engineers, a city engineer, a land negotiator, an assessment supervisor and a clerk-typist. As a result of the past elimination, consolidation and reassignment of a number of positions within the division, the engineers are responsible for the majority of the functions of the department. Youngstown retained the fewest engineering technicians of the peer cities for 1998. This can be directly attributed to the City's high level of contracted services. Also, due to the limited staffing, the City of Youngstown incurs significantly higher consulting fees ($2.3 million) than the peer cities, as well as completes fewer design projects in-house.

For the years 1996 and 1997, the engineering division contracted out services totaling approximately $2.4 million. A cost analysis completed by the deputy director revealed that by hiring four additional

staff members, 35 percent of those contracted services could potentially be brought back in-house. The analysis projects the total cost of hiring the four additional individuals to be approximately $166,000 annually while the savings associated with completing these tasks in-house is projected to be approximately $420,000 annually. In accordance with the City charter, the engineering department bids out all construction services.

Commendations: The City has provided an effective means of securing professional construction services through bids or statements of qualifications and cost proposals.

Recommendations: While it appears there is some merit to the deputy director's engineering department proposal in terms of the cost benefits associated with hiring additional employees to limit the City's need for project design consultants, other factors must be considered before its implementation. Such factors include: the ability to recruit qualified employees; any unproductive/down time which may be associated with additional staff; and the quality of projects completed by an enhanced City department versus the quality of private consultants. The proposal has the potential to bring Youngstown into line with peer city practices. However, quality and productivity issues must be examined by the deputy director to ensure that the City can produce high-caliber work at a more effective and efficient level than is currently being provided. In addition, Youngstown should consider purchasing a total field surveying unit which would provide the ability to complete drawings three to four times faster which would significantly increase the number of projects currently being completed.

The City should also increase the use of request for proposals in procuring engineering services. The requests for proposals should be written in a manner that allows the vendor flexibility and creativity in presenting alternative proposals. Furthermore, the City should consider aggregating types of consulting services into similar groups which could reduce time associated with managing individual contracts.

The City should realign the functions of the engineering office staff to equitably distribute workloads and reduce overtime payments. Additionally, the engineering division should create and implement a cross training program for employees to ensure operational efficiency.

B. Inspection and Permit Administration

Background: The inspection and permit administration processes are not centralized in the City of Youngstown. Currently, five different departments are responsible for issuing permits and coordinating the zoning and permit processes. Additionally, the City utilizes three different departments to conduct all necessary inspections and maintain databases with numerous performance indicators.

Findings: All new residential and commercial construction requires permits. While all building permits require inspections, the number of inspections required per permit varies according to the size and type of project. The number and type of building inspections are not specified by codified ordinance or other relevant City regulations. However, departmental practice states that the average building permit requires roughly five to six inspections although that number can be as little as three or as much as twelve depending on the project.

Under optimal conditions, Youngstown currently performs five to six inspections for every permit issued. In contrast, the peer cities perform between eight and seventeen inspections for most new construction permits issued. The difference is attributed to the additional structural inspections which are not being completed in the City of Youngstown as well as the peer cities' issuance of more permits than Youngstown. While the building inspector has the ability to complete nine inspections under optimal conditions, due to an increase in granted permits, an average of twelve inspections were necessary per day in 1996. That figure has since increased to nearly 16 inspections per day which must be completed to eliminate his backlog. One reason for this backlog is that the peer cities each have additional building inspectors to complete the necessary inspections. Springfield and Lorain building inspectors are cross-certified to perform multiple inspections.

The City of Youngstown requires licenses for all mechanical contractors (electrical, plumbing, HVAC). It does not require licenses for general contractors involved in construction or remodeling. Currently, permits are granted through a manual process. However, the bureau of building has purchased the Building Department Software/Franklin Information System (BDS/FIS) software package to limit the repetitive work being performed with the permit process. Currently, the City is not fully utilizing all applications made available by the Franklin software system.

Record keeping within the City's permit and inspection bureau is inconsistent. As of April 1, 1999, the City was unable to provide information regarding the total number of permits and receipts for 1998, which is in violation of rule 4101:2-1-50 of the Ohio Administrative Code. Better use of the Franklin system would assist bureau staff in accurately maintaining the required documentation.

In 1998, engineers indicated that city council waived a significant portion of permit fees as an incentive to prospective businesses. While this practice may assist in attracting new business, the City is forced to recoup both the cost of the permit itself, as well as the costs associated with corresponding administrative functions and the ensuing inspections.

The assistant director of the CDA indicated that approximately five inspections are performed daily by each of the five inspectors. Each inspector investigates the complaints to determine if the situation warrants a notice requiring code compliance within 30 days. Most inspections take approximately five minutes because they are of a visible nature. During the course of daily responsibilities, the inspectors make visual inspections in each ward, commonly referred to as "street sweeps" which could also lead to notices being served. The division does not keep records of the notices it sends

out. The assistant director of the CDA roughly tracks the number of inspections through the use of a standard numbered form. The assistant director of the CDA provided estimates of inspections for the period from 1996 to 1998. However, documentation of the notices and court summons were unavailable from the City.

Youngstown has the second lowest ratio of housing units per inspector, which could indicate the City may not be receiving maximum productivity from this department. Peer cities have increased inspection efficiencies by having dual certified inspectors and centralizing the entire inspection process under one department.

Commendations: The Building Department Software/Franklin Information System software package should allow the building sub-division to decrease the amount of repetitive work being performed in the permit process.

Recommendations: To ensure quality in the construction or remodeling of property within the City, Youngstown should require all general contractors to be licensed by the City or the State of Ohio. The City should use the Franklin system to track the number and type of inspections completed for each permit issued. By tracking the inspections made and permits issued within the department, the City can accurately measure outputs over any given period of time. Furthermore, the Franklin system could be used to ensure proper plan review by automatically creating, documenting and monitoring plan review steps. The Franklin system should also be used to track housing code inspections to ensure that adequate follow-up work is being performed and allow inspectors to track individual cases throughout the process.

The City should improve the efficiency of the various inspections required by increasing the number of inspectors who have dual certification. The City should consider the possible efficiencies to be gained through a reorganization of the permit and inspection function. One possible reorganization is to bring all permit and inspection functions under one central division responsible for the entire process. A central department would promote coordination between the different inspectors and reduce the current level of organizational confusion.

Other significant recommendations include the following:

- Reassign some of the building inspector's tasks to the clerk-typist
- Adopt a policy defining the procedures for waiving permits
- Adopt and implement procedures to ensure all applicable permit fees are assessed
- Implement a 24-hour hotline for reporting housing code violations

Financial Implication: It is estimated that the implementation of these recommendations will result in additional annual revenue of $36,000, annual cost savings of approximately $261,000 and require approximately $20,000 of implementation costs.

Street Department

This section focuses on the street department of the City of Youngstown and is divided into five subsections: (A) General Issues; (B) Snow Removal and Ice Control; (C) Street Maintenance and Repairs; (D) Demolition of Condemned Structures and Site Clearance; and (E) Vacant Lot Management and Maintenance.

A. General Issues

Background: Youngstown has experienced a large decline in population over the past 30 years which has had a significant impact on the services provided by the street department, especially in the growing number of condemned structures requiring demolition and number of vacant lots requiring maintenance. Staffing has been reduced by two thirds over the past thirty years and the focus of the majority of departmental operations has shifted from its primary responsibilities of street repair and maintenance to the demolition of abandoned structures and maintenance of vacant lots. The street department is organized into four general parts – the garage, the office, the recycling program, and the general workforce.

Findings: The department does not create an annual planning schedule to estimate the workload for the upcoming year nor are potential available man hours estimated to allocate personnel resources to various tasks. Necessary resources are not estimated in the budgeting process and the department has little impact on the allocation of resources within department operations. The street department does not have standards to measure employee performance.

A bidding process is used daily to determine the assignment of personnel to departmental tasks. The bidding process is highly inefficient. Due to the current schedule, the department loses approximately 8,800 man hours each year. In addition, skilled employees may not be used to the benefit of the department if they bid jobs requiring lower levels of certification.

Under the current structure, the department does not monitor the productivity of foremen. The general foreman is the highest administrative position at the department and is responsible for its overall operation. There are currently four construction foremen who report to the general foreman. The majority of their time is spent at the department facility rather than in the field supervising work crews. Job descriptions for all positions are outdated and many lack legal detail.

The street department expends a significant amount for overtime each year. The current mayor implemented a reduction of overtime policy for all departments. Each department was required to eliminate discretionary overtime. Discretionary overtime affected all functions of the street department except snow and ice control which is considered emergency overtime. The policy appears to be the contributing factor to the significant reduction (76.5 percent) in overtime between 1997 and 1998.

The street department uses its own workforce to maintain and repair departmental vehicles and equipment. The department appears to have an excessive amount of staff to maintain and repair street department vehicles and equipment. The department does not retain adequate documentation to enable a determination of actual job functions performed by each employee each day.

Recommendations: The department should create an annual planning schedule that addresses the functions and responsibilities of the department for the upcoming year. Once total man hours and projects have been determined, the department can prioritize assignments. A decentralized budgeting process, coupled with prioritizing projects, would optimize the allocation of resources. The department's annual budget should be built upon operational units performance plans. Performance measures should be developed to ascertain that services are being completed efficiently and effectively and quality standards should be instituted to establish measurable goals and objectives.

The City should increase the number of productive hours worked by eliminating the bidding process, and implementing biweekly or monthly job assignment schedules. Productive hours could be increased by a half-hour by extending the work day to exclude the half-hour paid lunch. An additional half hour would be gained through eliminating the bidding process.

Other recommendations include the following:

- Reorganize the street department to improve productivity and increase the level of responsibility for certain positions
- Update job descriptions to reflect the current workforce
- Reevaluate its staffing levels for vehicle and equipment maintenance and institute a routine maintenance program
- Consider implementing a centralized garage to maintain all City vehicles and equipment for all departments
- Maintain adequate documentation to determine job functions performed by each employee each day

Financial Implications: It is estimated that the implementation of the recommendations contained within this section would result in annual cost savings of $288,000 and require $5,500 in one-time implementation costs.

B. Snow Removal and Ice Control

Background: The department staffs the snow and ice control function with two shifts between December 1 and March 15. Youngstown has an unwritten bare pavement policy for all its roads. To maintain bare pavement, the department uses salting over plowing as much as possible. Departmental practice states that plowing will begin once three inches of snow has covered the ground.

Findings: The City does not have a written snow policy, but has informally assigned a high level of service for the city streets. Youngstown spends significantly more than its peers by maintaining a bare pavement policy and using salt over plowing. Performance measures, specifically efficiency and productivity measures, have not been developed.

The department does not keep records on absenteeism or work assignments for employees working the third shift in the same manner as other shifts. Also, the City uses distinct shifts instead of split shifts as are used in the peer cities. The department has not maintained adequate records for labor costs or man hours spent on snow and ice removal. The department could not provide master route sheets for 17 days during which the daily assignment sheets scheduled workers for snow and ice control.

The department uses overtime extensively to perform snow and ice control. Youngstown spent a total of 2,006 overtime hours on snow and ice control which amounts to 41.7 percent of its total hours for 1997. The number of employees able to drive snow removal vehicles is limited by the small number of CDL certified workers.

De-icing salt is purchased frequently throughout the winter season to allow the City to keep a minimal amount of salt in storage on site. Youngstown uses a significantly higher amount of salt than the peer cities. Youngstown stores salt at the streets department yard and the salt pile is uncovered and exposed to the elements at all times. Although Youngstown has an area in square miles larger than its peers, it only uses one site for salt storage which is not centrally located.

Assigned routes typically have fewer lane miles than peer cities. The department differentiates between main, secondary and residential streets in assigning plowing routes. Current routes were established in 1989 and have not been updated. Snow and ice removal vehicles are not maintained in a manner consistent with manufacturer recommendations. Vehicles are stored over the summer months and are not converted to other uses.

Recommendations: The department should review existing snow and ice practices and develop a written snow policy. Performance standards should be included in the policy and should encompass efficiency measures and productivity measures.

The City should reevaluate staffing and shift needs during the snow season. The City could consider reducing the number of staff assigned to the third shift and providing for regular coverage over the weekends or splitting the employees currently assigned to the third shift to implement a second shift. Although overtime is inevitable in snow and ice control, management must take a more active role to manage overtime. The department should encourage laborers to obtain CDL certification to increase the number of employees able to drive snow removal vehicles. Specific training in the use of snow removal equipment and salt should be provided to all drivers.

The City should review salt application procedures to identify inefficiencies which have led to the high use of salt. In addition, the City should implement procedures to begin tracking the amount of salt used. The City should store salt on an impermeable pad in a ground-level storage building. In addition to constructing a dome storage structure, Youngstown should consider a satellite salt station.

Routes should be reevaluated and assigned in a manner more consistent with the peer cities. Snow and ice routes should also be updated and the department may benefit from the use of computerized routing software. Vehicles should be maintained in a manner consistent with manufacturer specifications. Adapting vehicles for year round use would increase the number of tasks to which vehicles could be assigned.

Financial Implications: It is estimated that the implementation of the recommendations contained within this section would result in annual cost savings of $82,000, an annual cost avoidance of $100,000 and require $197,000 in implementation costs. The implementation cost associated with constructing a salt storage dome will vary depending on the actual size of the storage dome constructed.

C. Street Maintenance and Repairs

Background: The department is responsible for completing road maintenance services in an effort to reduce hazardous conditions and prolong the life of the street infrastructure. The scope of the street maintenance program is limited to completing minor repairs to roads, bridges and highways, the majority of which is performed during the spring and summer months. During this time, the department dedicates a significant amount of time to filling potholes which have developed during the winter.

Findings: Street maintenance has the highest hourly labor expense of all the functions of the department but accumulates the lowest amount of overtime when compared to other departmental activities. The street maintenance program is primarily reactive and concentrates mainly on filling potholes. The department does not keep track of the total number of potholes in need of repair or the number of lane miles that have been serviced. In addition, the department does not have a policy or methodology in place to coordinate their street maintenance efforts with the resurfacing program operated by the engineering department.

The department uses two different methods for patching potholes, the traditional method of filling by hand and a mobile self-contained pothole mixing machine. The vast majority of the repairs are completed using the traditional manual method. The City restricts the use of the patch mobiles to highway repairs. The department does not perform crack sealing. Street sweeping is performed on a limited basis and the department has not developed an action plan to improve the quality and frequency of street sweeping.

Recommendations: The department should revise its work order processing system. The City should develop and adopt a policy outlining a methodology which should be used to determine which roads should be resurfaced. In addition, the street department and engineering division should cooperate and work together when developing the list of recommended resurfacing projects for city council approval. Working together would aid the street department in planning its patching program and would reduce the probability of duplication of effort.

The City should increase its efforts in maintaining streets. Crack sealing should be performed to extend the life of the pavement. Estimates indicate that a crack sealing program could extend the useful life of the pavement by three to four times that of unsealed pavement. The department should perform an analysis to determine if it is feasible to perform crack sealing with existing equipment or if specialized equipment needs to be purchased. Existing patch mobiles should be used as an efficient means to produce durable and long lasting repairs. The City should also improve the street sweeping function to help ensure the integrity of the street surface. Attaining performance levels achieved by the peer cities could enable the department to increase the number of miles being swept by three to four times the current level.

Financial Implications: It is estimated that the implementation of the recommendations contained within this section would result in estimated annual cost savings of $170,000 and require approximately $17,000 to $23,000 in implementation costs.

D. Demolition of Condemned Structures and Site Clearance

Background: The department is responsible for the demolition and the subsequent clearing of houses deemed to be unsafe, uninhabitable or a nuisance by the housing code enforcement division. The housing code enforcement division determines if a home must be demolished. The city fire chief also has the power to condemn any home or request a home be demolished as a result of fire damage.

The City attempts to collect the cost to demolish a structure from the property owner. If a private contractor performs the demolition, the engineer's estimate for the structure is sought for collection. For work performed by the street department, a predetermined formula is used by the City to calculate the amount to be collected from the property owner.

Findings: There is a backlog of houses waiting to be demolished within the City with approximately 500 total homes scheduled for demolition and approximately 200 homes being added to the list annually. Youngstown has experienced difficulties when bidding out demolition work to private contractors due to an inflexible bidding process.

The street department has not sought sufficient reimbursement of demolition work performed by the community development agency for the actual costs incurred on each demolition site. The amount of reimbursement sought by the street department is not based on the actual costs incurred. Also,

resources may not be used in a cost effective manner as the department may be overstaffing portions of the demolition process.

Millstone & Kannensohn Attorneys perform collections on behalf of the City for expenses assessed against the homeowner. Millstone & Kannensohn do not appear to be using all available means to actively collect the large number of outstanding active demolition accounts owed to the City.

Recommendations: To eliminate the backlog of houses awaiting demolition, the City should consider making the request for proposal (RFP) acceptance procedures less stringent to attract the maximum number of bidders. Hiring private contractors to demolish houses is a means of decreasing the number of condemned structures awaiting demolition.

The department should seek reimbursement for demolition work performed from the community development agency for the actual costs incurred on each site. Also, staff allocations for portions of the demolition process should be reduced. Overtime authorizations should be reevaluated and the department should consider using overtime to expedite the demolition process and decrease the backlog of condemned homes. Also, the addition of a demolition crew could be accomplished for the same cost as outside contracting and may help the City decrease the backlog.

The City should reevaluate the contractors that perform collections on its behalf and ensure that the collectors are maximizing potential collection amounts. The contractor should ensure that all available means are used to collect funds owed to the City.

Financial Implications: It is estimated that the implementation of the recommendations contained within this section would result in additional annual revenue of $261,000 to $360,000 and annual cost savings of $45,000.

E. Vacant Property Management and Maintenance

Background: The vacant property management program was developed by the City to minimize noxious weeds and tall grass within the city limits. Though it is the duty of the property owner, occupant or agent in charge of any land or premise to remove any nuisance from the property, the department annually monitors or inspects more than 6,200 vacant lots and maintains approximately 2,500 of these lots. The primary problem facing the vacant lot maintenance program is the inordinately large number of vacant, neglected lots in the city.

The department computerized the vacant property management program through the development of a vacant lot database designed in-house. Vacant property management is conducted year round. When a crew abates a nuisance on a property, the City charges the known property owner $150 for each parcel of land in violation each time the property is maintained by the City.

The Ohio Revised Code established a land bank program allowing cities to collect and hold (bank) vacant abandoned lands for resale. The engineering department operates the land bank program, though it is underused.

Findings: Youngstown, in comparison to the peer cities, is maintaining an inordinately large number of vacant lots. Instead of managing lots, collecting fees and preparing vacant parcels for resale, the department has effectively evolved into caretakers of large tracks of vacant, underdeveloped lands. The annual cost to the City to maintain vacant lots is approximately $68,000, though all costs are not included in this figure.

The department uses a database to track vacant lot management, past offenders and new violators. The database is ineffectively used and is not frequently updated. Also, billing, which is conducted by a private contractor, is not linked to the database and the department is unable to track billing and collections. Overtime is used excessively to complete the mowing component of the program. Hours worked and numbers of lots mowed are not tracked, and staff is inefficiently allocated to the program.

The current billing system is inadequate and does not generate sufficient revenues to cover the costs of operations. The City has an option to place a lien on the lot if collections are not successful or if owners cannot be located. The majority of collections efforts are unsuccessful.

Recommendations: The City must undertake efforts to divest the department of a large portion of the maintained lots. The City should immediately begin foreclosure proceedings on the properties of individuals unwilling to pay charges for city maintenance of the vacant properties. The vacant lots should be placed in the land bank and offered at low cost to either residents or developers, thereby releasing the street department from the obligation and expense of caring for the property.

Housing inspectors should perform all inspections and fill out work orders for both departments, thereby freeing the analyst to perform information system tasks. The departmental vacant lots database should be expanded and used to enforce the abatement ordinance, expedite the billing process, generate invoices and work orders and identify parcels appropriate for foreclosure. Work crew composition should be reevaluated and seasonal workers should be incorporated within this program.

The department should assess the actual operating cost of the program and compare the amount received through fines to program expenditures. Abatement charges should be re-evaluated annually to ensure the City is recouping its costs. The City must determine a method to increase the successful billing rate. The billing and collection process must be improved and the City should consider operating these portions of the program in house. To improve parcel acquisition, foreclosure proceedings should be initiated as quickly as possible when vacant lots have been abandoned. All foreclosed properties should be added to the land bank for resale.

Financial Implications: It is estimated that the implementation of the recommendations contained within this section would result in additional annual revenue of $105,000 and annual cost savings of $233,000.

Summary of Financial Implications

The following table summarizes the performance audit recommendations which contain financial implications. These recommendations provide a series of ideas or suggestions which the City of Youngstown should consider. Certain of the recommendations are dependent on labor negotiations. Detailed information concerning the financial implications, including assumptions, is contained within the individual sections of the performance audit.

Estimated Revenue Enhancements, Cost Savings of Recommendations and Implementation Costs				
Ref. No.	**Recommendations From All Sections**	**Revenue Enhancements**	**Potential Cost Savings of Recommendation**	**Implementation Costs**
Employee Related Issues:				
R2.1	Revise severance payout policy		$521,570 (cost avoidance)	
R2.2	Reduce sick leave utilization		$209,000 - $353,000 (annual)	
R2.5	Revision of sick leave incentives		$28,000 - $134,000 (annual)	
R2.13	Reduce minimum call-out payments		$11,232 - $16,848 (annual)	
R2.14	Discontinue "on-call" payments		$8,344 (annual)	
R2.15	Discontinue meal ticket policy		$22,000 - $31,000 (annual)	
R2.16	Restructuring the longevity policy		$45,496 (annual)	
R2.21	Incorporate monthly premium contributions into fringe benefits		$366,000 - $732,000 (annual)	
R2.23	Improve management of workers' compensation program		$2,300,000 (annual)	
Income Tax:				
R3.1	Improve income tax collection procedures as discussed in various recommendations	$5,000,000 (annual)		
R3.3	Pursue alternatives to paying overtime during peak season		$6,610 - $8,661 (annual)	
R3.6	Expand existing income tax department and reorganize current structure			$331,000 (annual)
R3.8	Collect required income tax withholdings monthly - interest income	$7,600 (annual)		
R3.13	Obtain taxpayer information from the Ohio Department of Taxation to help identify non-filers			$750 - $1,500 (annual)

Estimated Revenue Enhancements, Cost Savings of Recommendations and Implementation Costs				
Ref. No.	**Recommendations From All Sections**	**Revenue Enhancements**	**Potential Cost Savings of Recommendation**	**Implementation Costs**
R3.20	Purchase new income tax system			$145,000 (one-time) $6,000 (annual)
R3.25	Utilize external provider for income tax management services			$60,000 (one-time) $426,782 - $432,569 (annual)
Payroll:				
R4.1	Implement automated time and attendance system			$70,250 (one-time) $5,670 (annual)
R4.6	Eliminate manual effort in printing deduction checks		$1,000 [1] (annual)	
R4.15	Eliminate duplicate activities in the shop division of the water department Combine payroll and procurement duties in the water department		$11,400 [1] (annual) $24,000 (annual)	
R4.20	Maximize use of direct deposit		$1,205 (annual)	
R4.22	Eliminate associated manual effort through implementation of equipment for printing and self sealing mailers.		$1,000 [1] (annual)	
Procurement:				
R5.3	Implementing just-in-time for office supplies		$63,500 - $79,500 (annual)	
R5.8	Hire a buyer for centralized purchasing			$32,500 (annual)
R5.9	Implementing on-line purchasing			$25,000 (one-time)
R5.19	Implementing self-sealing mailer machines		$7,000 [1] (annual)	$5,600 (one-time)
Technology Utilization:				
R6.1	Create full-time chief information officer position			$84,500 - $110,500 (annual)
R6.4	Establish additional technical support positions			$90,000 - $120,000 (annual)
R6.16	Purchase help desk software to enhance technical support services			$1,000 (one-time)
R6.19	Purchase network management software to assist in effectively monitoring network activities			$19,000 [3] (one-time)
R6.22	Purchase city-wide e-mail software system			$2,755 (one-time)

Estimated Revenue Enhancements, Cost Savings of Recommendations and Implementation Costs				
Ref. No.	**Recommendations From All Sections**	**Revenue Enhancements**	**Potential Cost Savings of Recommendation**	**Implementation Costs**
R6.27	Provide network administration and support training Provide A+ certification training to network support personnel			$8,000-$11,000 (one-time) $1,875 (one-time)
Revenue Generation:				
R7.3	Properly enforce licensing requirements and update fees	$43,275 (annual)		
R7.4	Properly enforce permit requirements	$127,000 (annual)		
R7.5	Increase towing and impounding fees	$11,000 (annual)		
R7.7	Bring management of parking lots and meters in-house		$26,000 (cost avoidance)	
R7.9	Follow-up on unclaimed funds	$1,600 (one-time)		
Water Department:				
R8.5	Streamline meter maintenance field operations		$35,500 (annual) $11,000 (cost avoidance)	
R8.6	Streamline meter maintenance clerk operations		$32,900 (annual)	
R8.8	Limit COLA increases to zero, one and two percent for the next three years		2000 - $130,397 2001 - $228,102 2002 - $292,528 (cost avoidance)	
R8.12	Increase productivity in meter reading section		$105,000 (annual)	
R8.13	Initiate meter reading carpooling		$15,600 (cost avoidance)	
R8.14	Transition to bi-monthly readings		$105,000 (annual)	
R8.16	Restructure turnkey function		$150,000 (annual) $33,000 (cost avoidance)	
R8.17	Improve communication and collections on inactive accounts	$160,000 (annual)		
R8.24	Ensure Aquatrol Year 2000 compliance			$6,172 (one-time)
R8.29	Reduce low zone water loss by 50 percent via leak detection and repair		$229,800 - $273,570 (annual)	
R8.38	Streamline garage operations by ending painting practice		$25,000 (annual)	

Estimated Revenue Enhancements, Cost Savings of Recommendations and Implementation Costs				
Ref. No.	**Recommendations From All Sections**	**Revenue Enhancements**	**Potential Cost Savings of Recommendation**	**Implementation Costs**
Sewer Department:				
R9.1	Improve productivity in maintenance and plant operations to reduce positions contingent upon EPA litigation		$438,034 - $525,641 (annual)	
R9.4	Reduce overtime expenditures for non-management employees		$55,900 - $69,800 (annual)	
R9.5	Eliminate management eligibility for overtime		$46,784 (annual)	
R9.8	Implement policy to aid in the reduction of sick leave use		$18,400 - $30,700 (annual)	
Engineering, Permits and Inspections:				
R10.3	Return contracted services in-house		$254,141 (annual)	
R10.4	Reduction of overtime		$7,061 (annual)	
R10.5	Update engineering technology			$9,700 (one-time)
R10.6	Institute a licensing process for general contractors	$36,000 (annual)		
R10.6	Implement inspection software			$10,000 (one-time)
Street Department:				
R11.5	Increase productivity by eliminating the current job bidding process and paid lunch benefit		$110,672 (annual)	
R11.12	Reduce mechanic staffing by attaining peer productivity ratios		$106,000 (annual)	
R11.15	Require ASE certification for mechanics			$180 (one-time)
R11.16	Eliminate unnecessary garage positions		$71,500 (annual)	
R11.20	Implement a computer management system			$5,390 (one-time)
R11.28	Reduce overtime payments by increasing the number of personnel with CDLs		$67,500 (annual)	$8,750 (annual)
R11.30	Establish stipends for employees who become part of a substitute pool			$4,500 (annual)
R11.31	Implement snow and ice routing software			$3,000 (one-time)
R11.32	Increase vehicle maintenance efforts		$100,000 (cost avoidance)	
R11.35	Construct a salt storage dome		$14,566 (annual)	$159,000 (one-time)

Estimated Revenue Enhancements, Cost Savings of Recommendations and Implementation Costs				
Ref. No.	**Recommendations From All Sections**	**Revenue Enhancements**	**Potential Cost Savings of Recommendation**	**Implementation Costs**
R11.37	Purchase road salt prewetting system			$22,500 (one-time)
R11.40	Utilize patch mobiles instead of the traditional manual method		$170,000 (annual)	
R11.41	Purchase crack sealing machine			$17,000 - $23,000 (one-time)
R11.45	Assess demolition permit fee	$5,600 (annual)		
R11.46	Re-evaluate the demolition and grading crew responsibilities		$45,123 (annual)	
R11.48	Assess actual cost of demolition to property for reimbursement	$110,400 (annual)		
R11.52	Increase collection rate of demolition charges	$145,000 - $244,000 (annual)		
R11.59	Eliminate full-time benefit to seasonal employees		$60,750 (annual)	
R11.60	Effectively use seasonal employees to reduce overtime		$66,262 (annual)	
R11.64	Increase abatement charges collection rate	$105,000 (annual)		
R11.67	Reduce average cost per lot maintained to those attained by the peers		$106,000 (annual)	
	Total Potential Annual Minimum Savings/(Costs)	**$5,752,475 - $5,851,475[4]**	**$6,785,877 - $7,592,121 [5]**	**$1,561,874 - 1,633,411[6]**

[1] Savings of deployed costs. Deployed costs are costs which would no longer be connected to the specific task but would continue to be absorbed elsewhere within the City.
[2] The range is broad because the salary and benefits cost depends on whether the City promotes an existing employee or hires one externally.
[3] The $19,000 represents the cost of one specific network management module. The total cost to implement a network monitoring system will depend on the number of different modules the City decides to purchase.
[4] Includes one-time revenue enhancement of $1,600.
[5] Includes one-time cost avoidances of $152,741 to $464,642 and annual cost avoidances of $126,000.
[6] Includes one-time implementation costs of $571,422 to $580,422.

The above financial implications are presented on an individual basis for each recommendation. The magnitude of cost savings associated with some recommendations could be affected or offset by the implementation of other interrelated recommendations. Therefore, the actual cost savings versus the estimated cost savings noted above could vary depending on the implementation of the various recommendations.

In addition to the amounts included in the table above, the City is likely to incur significant costs which could not be reasonably estimated for this report. The age and condition of the water and sewer infrastructure indicates significant investment will be needed to bring these systems up-to-date.

For example, the estimated future capital cost associated with the replacement of waterlines only is in excess of $160 million. In addition, an EPA lawsuit will likely require in-kind service contributions and poses the potential for significant penalties and interest to be assessed. The cost to make necessary systems in the City Year 2000 compliant is not known because a comprehensive assessment of the systems has not been performed.

Objectives and Scope

A performance audit is defined as a systematic and objective assessment of the performance of an organization, program, function or activity to develop findings, conclusions and recommendations. Performance audits are usually classified as either economy and efficiency audits or program audits.

Economy and efficiency audits consider whether an entity is using its resources efficiently and effectively. They attempt to determine if management is maximizing output for a given amount of input. If the entity is efficient, it is assumed that it will accomplish its goals with a minimum of resources and with the fewest negative consequences.

Program audits normally are designed to determine if the entity's activities or programs are effective, if they are reaching their goals and if the goals are proper, suitable or relevant. Program audits often focus on the relationship of the program goals with the actual program outputs or outcomes. Program audits attempt to determine if the actual outputs match, exceed or fall short of the intended outputs. The performance audit on the City of Youngstown is primarily designed as Economy and Efficiency Performance Audit.

The objectives of performance audits may vary. The Auditor of State's Office has designed this performance audit with the objective of reviewing systems, organizational structures, finances and operating procedures to develop recommendations for reducing operating costs, increasing revenues and/or improving efficiency. Specific objectives of this performance audit are to:

- Identify opportunities for improving City effectiveness, responsiveness and quality of service delivery which is cost beneficial.
- Identify opportunities for improving City procedures, work methods and capital asset utilization which should result in higher quality and/or reduced costs.
- Determine if the current City organization is flexible and effectively structured to meet future demands.
- Evaluate management policies and procedures and provide recommendations for enhanced revenue flows, expenditure reduction ideas, delivery of service or employee productivity.
- Evaluate contractual provisions and provide recommendations for increasing managements ability to manage employees.
- Provide recommendations for the City to use in their attempt to regain financial stability.

The performance audit on the City of Youngstown covers the following department and areas operations:

- Employee Related Issues - includes contractual issues, benefits administration and workers' compensation
- Income Tax Department

- Payroll
- Purchasing
- Technology Utilization
- Revenue Generation
- Water Department
- Sewer Department
- Engineering, Permits and Inspections
- Street Department - includes general issues, snow removal and ice control, street maintenance and repairs, demolition, and vacant lot management

These particular departments and areas of operations were decided upon pursuant to discussions with the City of Youngstown. These departments and areas represented those in which the City of Youngstown expressed concern regarding their operational efficiency and effectiveness in delivering services.

Planning for the performance audit began in October of 1998. The actual performance audit was conducted primarily from November 1998 through September 1999. Regular progress meetings were conducted throughout the entire period. Draft reports were discussed with the appropriate city managers during the audit process and an official post audit was conducted.

Methodology

To complete the performance audit, the auditors gathered and assessed a significant amount of data pertaining to the City of Youngstown, conducted interviews with various groups associated with the City and conducted interviews and assessed information from the peer cities along with other cities. The methodology is further explained below.

Use of previous studies, reports and other data sources

In assessing the various performance audit areas, the auditors spent a significant amount of time gathering and assessing other pertinent documents or information. Examples of the studies, reports and other data sources which were studied include:

- City charter and codified ordinances
- Various revenue, payroll, expenditure and budgetary reports from the City's financial systems
- Labor contracts
- Population reports from the Bureau of Statistics
- Various management reports generated from systems within the income tax, engineering, water, sewer, streets, and payroll departments
- Various departmental policies and manuals
- Data and reports provided by the peer cities

- Personnel records
- Collection reports provided by outside collection agency
- Reports from the Bureau of Workers' Compensation
- Various sections of the Ohio Revised Code
- Various time and attendance records maintained by departments
- General purpose financial statements and management letters for 1996 and 1997
- Ohio EPA sewer and water rate survey
- Data from American Water Works Association (AWWA)
- State Issue II program requirements, Ohio Public Works Commission(OPWC)
- City of Youngstown 1998 capital improvement report submitted to the OPWC
- 1994 sewer charge study, Havens and Emerson
- 1991 Snow and Ice Study, Transportation Research Board
- Snow and Ice Best Practices Review, State of Minnesota

Interviews and Discussions

Numerous interviews and discussions were held at many levels and with groups of individuals involved internally and externally with the City of Youngstown. These interviews were invaluable in developing the overall understanding of the City's operations and in some cases, were useful sources in identifying concerns with those operations and in providing recommendations to address these concerns. Examples of the organizations and individuals which were interviewed and surveyed include:

- The mayor and finance director
- Various managers and all levels of employees from the City
- Various county and state officials, as well as, representatives from other municipalities
- Private vendors specializing in the technology, payroll, technology, water and street areas
- Consultants specializing in collections, workers' compensation and public works

Benchmark Comparisons with Other Cities

Three Ohio cities, Canton, Lorain and Springfield, were selected to provide benchmark comparisons with the City of Youngstown. The aforementioned cities were selected based upon similar demographic and operational data. Information received from these three cities was used to develop a mechanism to compare how effectively and efficiently the City of Youngstown is providing services. The information was gathered primarily through information requests and interviews held with appropriate personnel at each city.

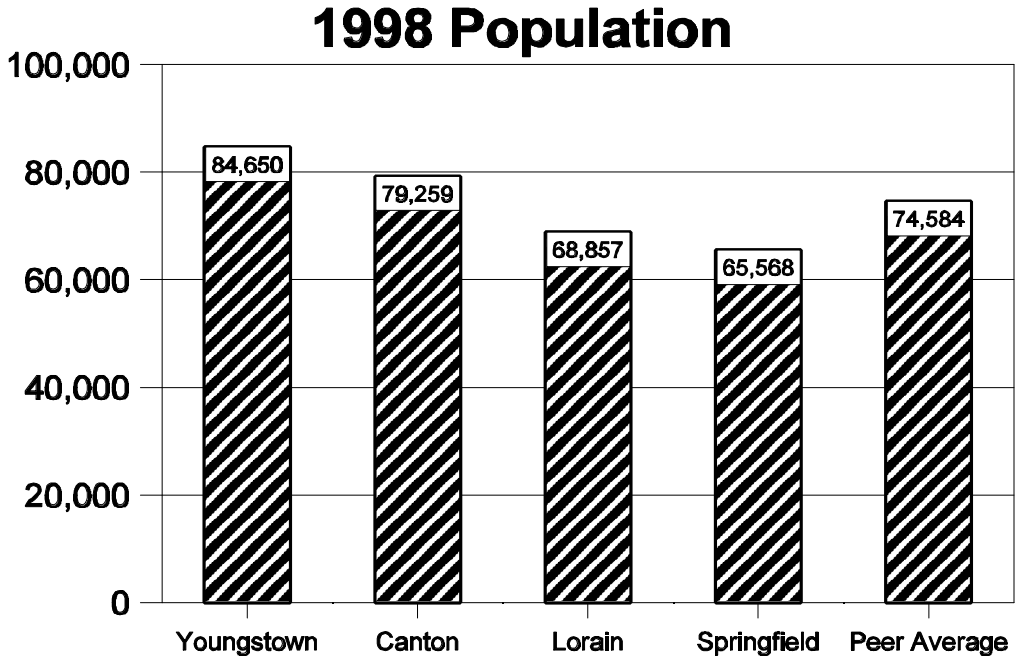
Comparative Cities

One important component of a performance audit is the selection of peer cities. The peer groups provide an ability to compare information and statistics while providing benchmarking data. The peer group selected for this performance audit includes the cities of Youngstown, Canton, Lorain and Springfield. The four cities are all located within the state of Ohio. These cities were selected as peer cities because of similar demographic statistics. The peer average includes the City of Youngstown unless otherwise noted. Certain information contained within this executive summary may differ from the individual areas due to the timing of the information.

Youngstown's population in 1998 was estimated to be 84,650 people. This is the highest among the peer cities and 12 percent higher than the group average for 1998. Although all peer cities experienced decreases in population over the five year period, Youngstown's 5.88 percent decrease was the highest.

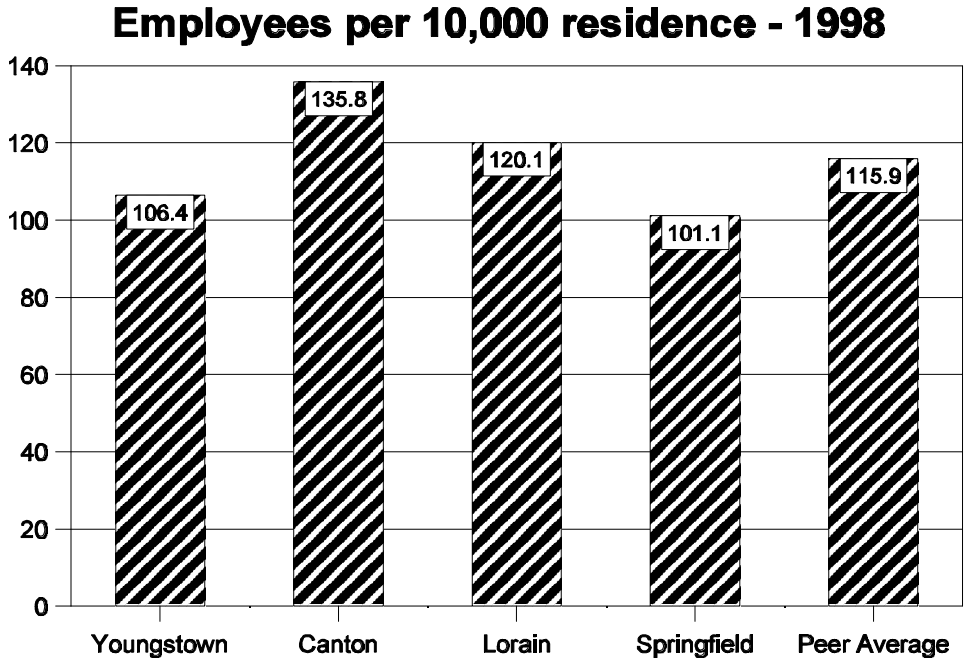
City Population Estimates						
	1994	**1995**	**1996**	**1997**	**1998**	**% Change 1994-1998**
Youngstown	89,940	88,401	87,174	85,874	84,650	(5.88)%
Canton	82,339	81,562	80,987	80,044	79,259	(3.74)%
Lorain	70,386	70,036	69,676	69,320	68,857	(2.17)%
Springfield	68,376	67,945	67,331	66,360	65,568	(4.11)%
Peer Average	77,760	76,986	76,292	75,400	74,584	(4.09)%

Source: U.S. Census Bureau



Youngstown's total number of employees, the second highest among the peer cities, was 901 in 1998. The City's number of total employees was four percent higher than the peer average. Analyses of staffing levels throughout this performance audit indicates certain areas appear to be overstaffed and others appear to be critically understaffed. Various sections of this audit such as the water, sewer and street department propose reductions in staffing levels. Other sections such as income tax, engineering, and purchasing propose additional positions to improve the efficiency and effectiveness in each area.

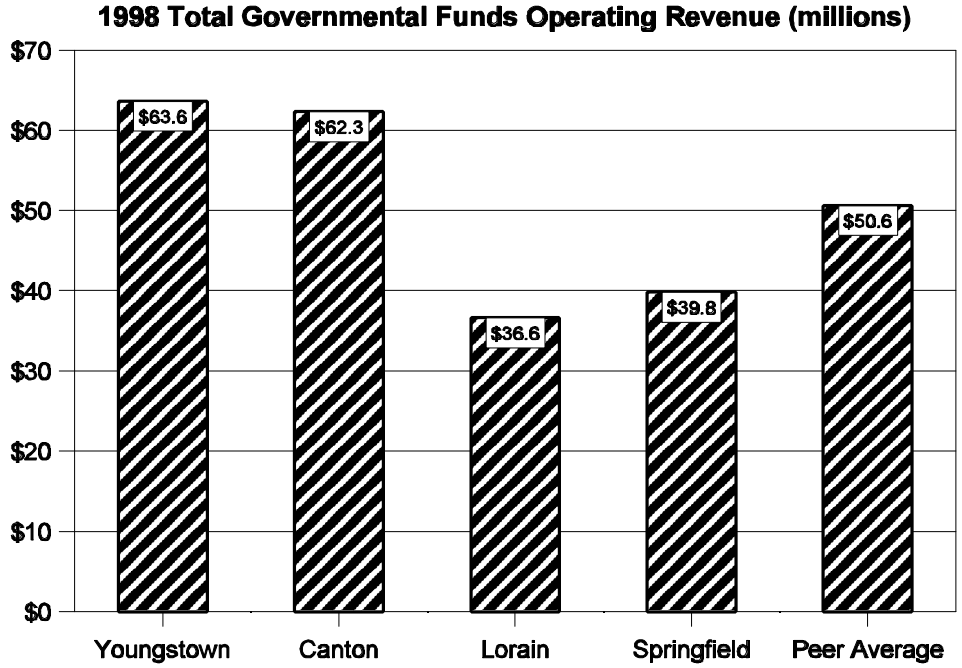
Youngstown has the second lowest number of employees per 10,000 city residences as compared to the peer cities. However, Youngstown is currently contracting many services out to private vendors which the peer cities provide internally. The services contracted out by Youngstown includes engineering services, delinquent account management and collection, workers' compensation management, electric and plumbing inspections, and emergency medical services. While contracting with private vendors to provide these services reduces the need for full time city employees, Youngstown still incurs the cost of providing the service.



Youngstown's realized the largest amount of operating revenues in their governmental funds for 1998 as compared to the peer cities. However, a significant portion of these revenues were unanticipated such as a $4 million workers compensation rebate, $2 million increase in inheritance taxes and $6 million in a federal grant. Excluding these unanticipated, and most likely one-time cash receipts, the operating revenues of the City would have been virtually stagnate over the past three years.

Total Governmental Fund Operating Revenues				
	1996	**1997**	**1998**	**% Change 1994-1998**
Youngstown	$58,057,894	$58,981,782	$63,639,867	9.61%
Canton	$62,968,897	$67,214,486	$62,322,354	(1.03)%
Lorain	$35,042,407	$34,764,320	$36,577,745	4.38%
Springfield	$35,571,949	$36,812,846	$39,836,316	11.99%
Peer Average	$47,910,287	$49,443,359	$50,594,071	5.60%

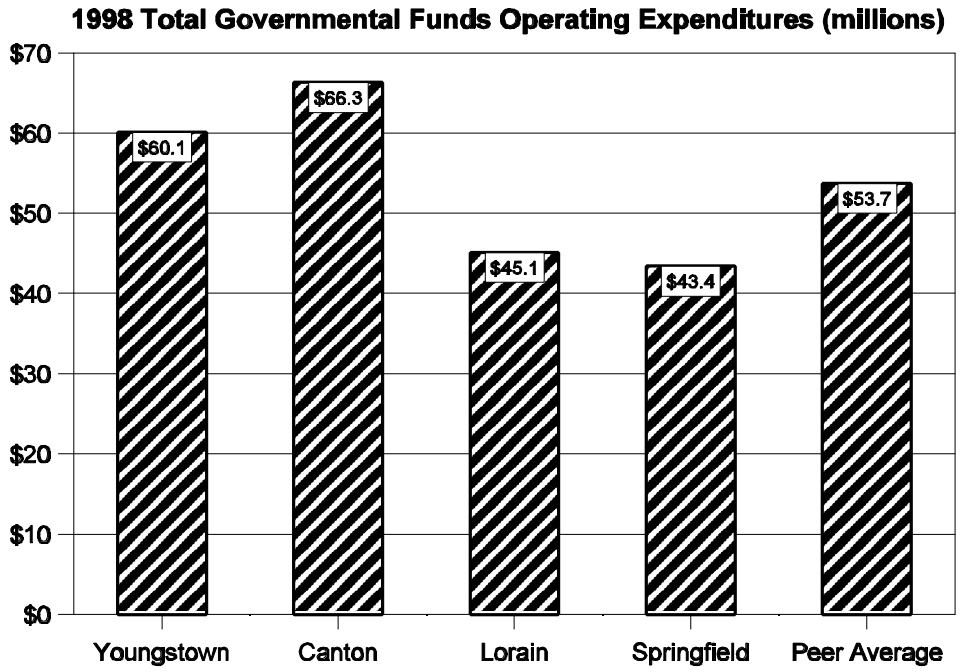
Source: City Financial Statements, 1998 unaudited Youngstown information



Youngstown's total expenditures in their governmental funds has decreased each of the past three years. The 1998 governmental funds expenditure total was the second highest among the peer group. Youngstown and Canton were the only two cities to experience a decrease in expenditures over the past three years. Youngstown's reduction in expenditures can be partially explained by the City's attempt to control costs due to their financial difficulties during this period of time.

Total Governmental Fund Operating Expenditures				
	1996	**1997**	**1998**	**% Change 1994-1998**
Youngstown	$64,388,818	$60,800,935	$60,107,847	(6.65)%
Canton	$66,570,108	$69,563,307	$66,332,708	(0.36)%
Lorain	$35,669,742	$43,427,657	$45,056,711	26.32%
Springfield	$39,214,196	$39,970,892	$43,370,810	10.60%
Peer Average	$51,460,716	$53,440,698	$53,717,019	4.38%

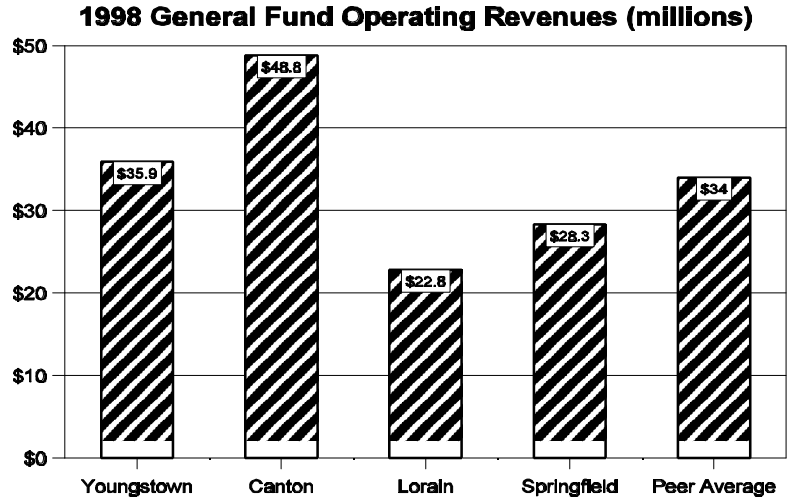
Source: City Financial Statements, 1998 unaudited Youngstown information



Youngstown's general fund operating revenue for 1998 was the second highest among the peer group and approximately $2 million higher than the peer average. The vast majority of additional general fund revenue Youngstown received in 1998 was attributable to two unanticipated cash receipts; a $2.0 million increase in inheritance tax receipts and a $4.3 million workers' compensation rebate of which $3.2 million was allocated to the general fund. In general, Youngstown's general fund operating revenues have been stagnant over the past three years. In addition, several sections of this audit indicate Youngstown does not have effective controls and procedures in place to ensure it is collecting all revenue which the City may be entitled to. See the Income Tax, Revenue Generation, Water Department, Engineering Department, and Street Department sections of this report for additional discussion on potential revenue enhancement possibilities.

Total General Fund Operating Revenues				
	1996	**1997**	**1998**	**% Change 1994-1998**
Youngstown	$30,213,842	$29,679,985	$35,909,832	18.85%
Canton	$42,724,177	$45,140,745	$48,831,745	14.30%
Lorain	$24,014,978	$23,078,525	$22,790,605	(5.10)%
Springfield	$24,931,557	$26,265,869	$28,321,602	13.60%
Peer Average	$30,471,139	$31,041,281	$33,963,446	11.46%

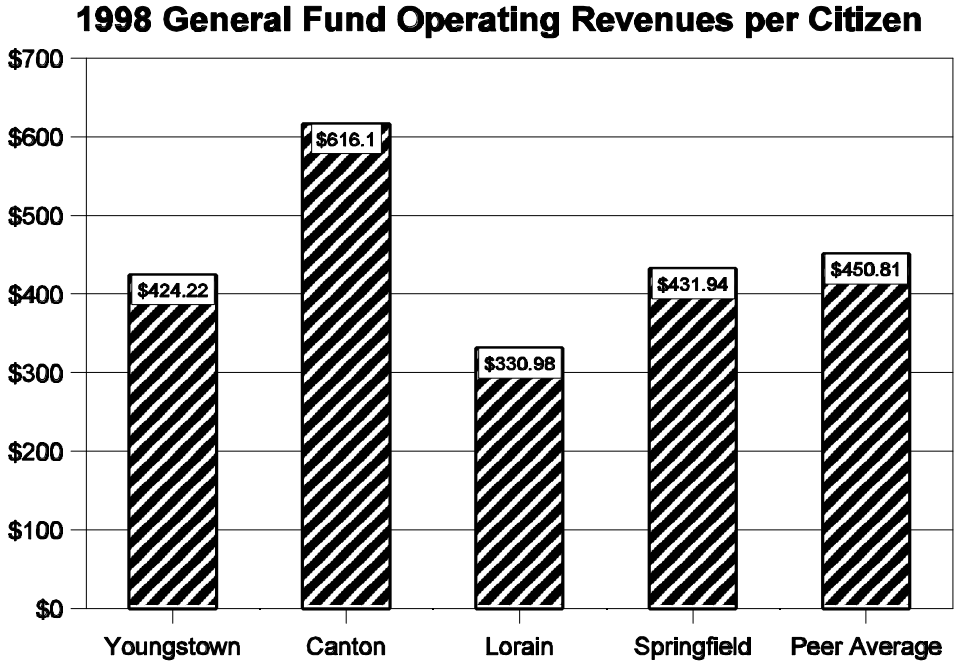
Source: City Financial Statements, 1998 unaudited Youngstown information



Youngstown's 1998 general fund operating revenue per citizen is the second lowest among the peer group. If the unanticipated, and most likely non-reoccurring cash receipts Youngstown received in 1998 were excluded from calculation, the City would have received significantly less revenue per citizen than Canton or Springfield. This is further indication that Youngstown has not maximized available revenue sources.

Total General Fund Operating Revenues per Citizen				
	1996	**1997**	**1998**	**% Change 1994-1998**
Youngstown	$346.59	$345.62	$424.22	22.40%
Canton	$527.54	$563.95	$616.10	16.79%
Lorain	$344.67	$332.93	$330.98	(3.97)%
Springfield	$370.28	$395.81	$431.94	16.65%
Peer Average	$397.27	$409.58	$450.81	13.48%

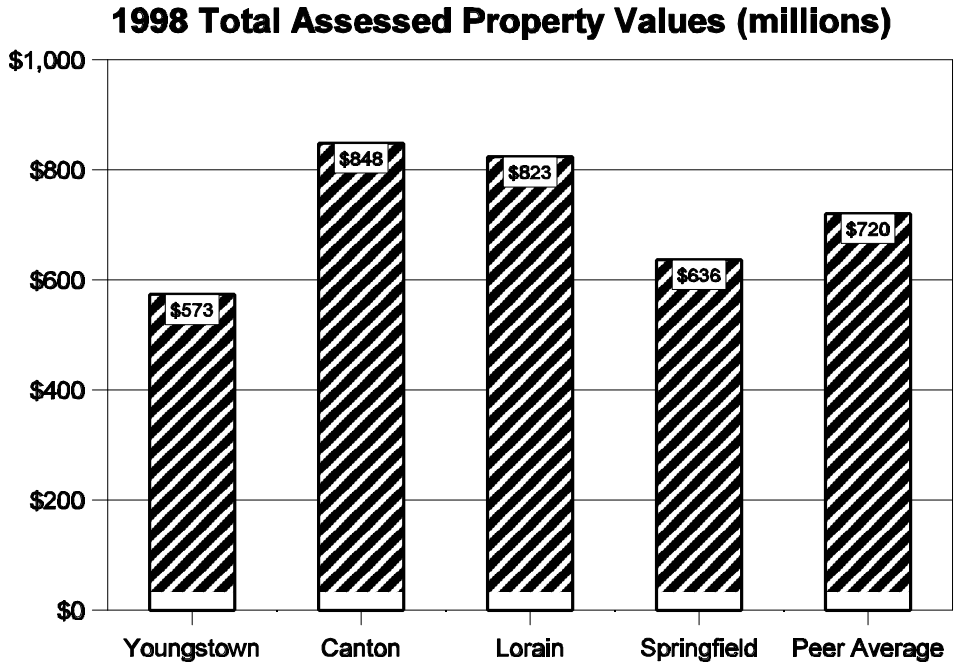
Source: City Financial Statements, 1998 unaudited Youngstown information



Total assessed property values are comprised of real, public utility and tangible personal property. Assessed value is the value at which the property is taxed. Youngstown's 1998 total assessed property was the lowest among the peer group. The seven percent rate at which assessed property values in Youngstown increased over the past three years was the second lowest among the peers and approximately three percent less than the peer district growth rate.

Total Assessed Property Values				
	1996	**1997**	**1998**	**% Change 1996-1998**
Youngstown	535,296,110	559,652,480	572,967,312	7.04%
Canton	715,831,568	746,392,008	848,227,745	18.50%
Lorain	747,469,350	823,678,974	822,564,554	10.05%
Springfield	620,172,642	628,833,819	635,828,218	2.52%
Peer Average	654,692,418	689,639,320	719,896,957	9.96%

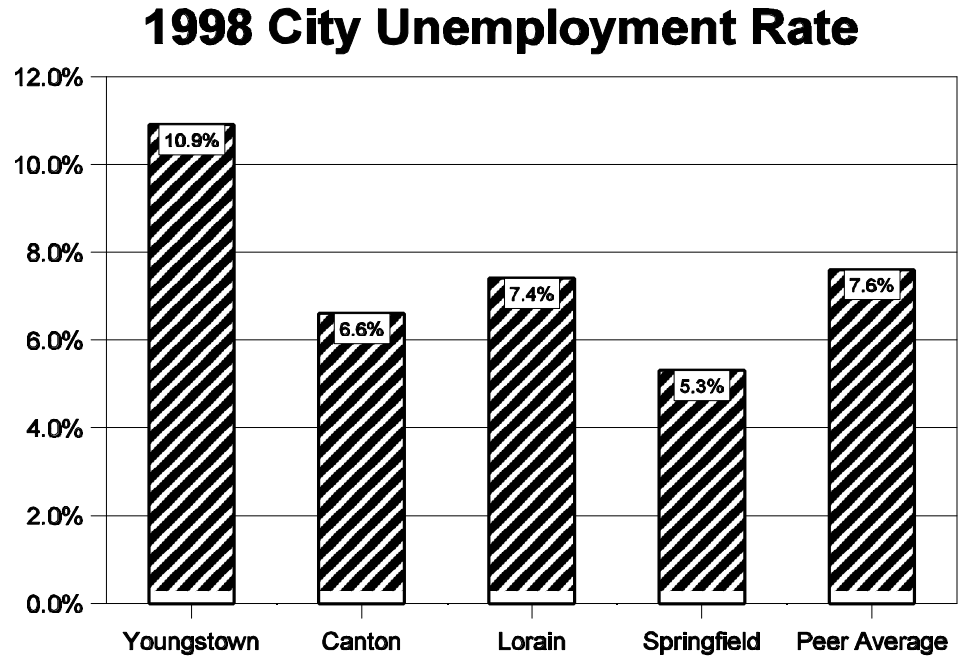
Source: City Financial Statements, 1998 unaudited Youngstown information



Youngstown's unemployment rate for 1998 was estimated to be 10.9 percent. This is the highest rate among the peer cities and significantly higher than the peer average of 7.6 percent. Youngstown's unemployment rate over the past five years has decreased by 24.3 percent, which was the second largest decrease among the peers.

City Unemployment Rate Estimates						
	1994	**1995**	**1996**	**1997**	**1998**	**% Change 1994-1998**
Youngstown	14.4%	11.3%	11.6%	10.8%	10.9%	(24.3)%
Canton	9.5%	7.9%	8.4%	7.6%	6.6%	(30.5)%
Lorain	8.6%	9.4%	9.2%	8.4%	7.4%	(14.0)%
Springfield	6.0%	5.6%	7.1%	5.9%	5.3%	(11.7)%
Peer Average	9.6%	8.6%	9.1%	8.2%	7.6%	(4.1)%

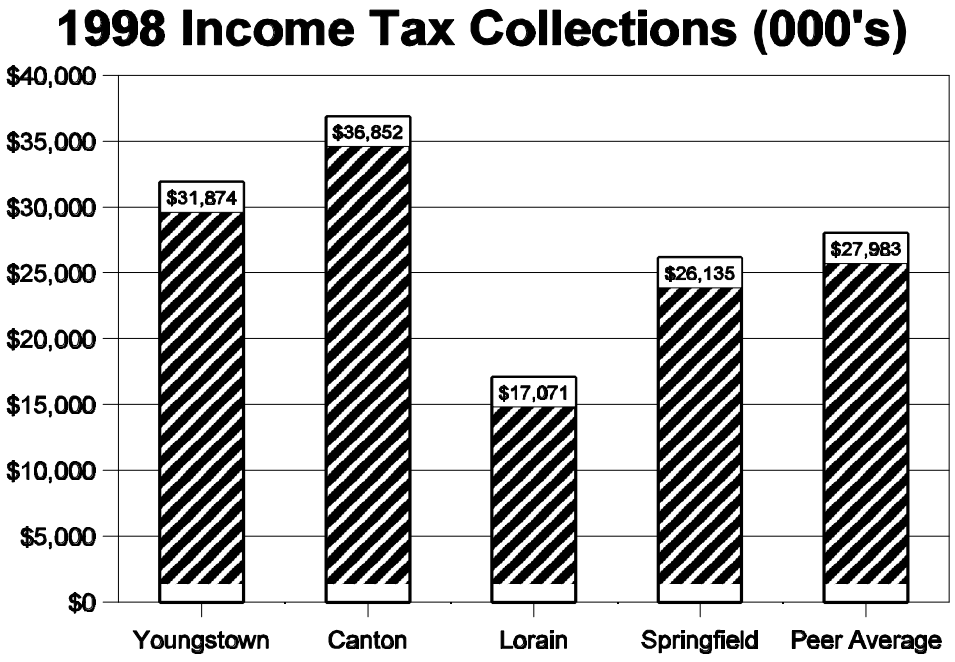
Source: Ohio Bureau of Employment Services



Youngstown's gross income tax collections in 1998 was $31.9 million. While gross income tax collected was the second highest among the peer cities, it should be noted that Youngstown's income tax rate was the highest. The income tax rate in effect at Youngstown was 2.0 percent for 1996 and 2.25 percent for 1997 and 1998. Canton and Springfield both had a 2.0 percent income tax rate in effect for the three years, while Lorain had a 1.75 percent income tax rate for the same period. A detailed analysis of income tax collections is provided for in the Income Tax section.

Gross Income Tax Collections				
	1996	**1997**	**1998**	**% Change 1996-1998**
Youngstown	$27,807,400	$30,285,670	$31,897,073	14.71%
Canton	$33,708,734	$35,643,742	$36,851,756	9.32%
Lorain	$19,077,419	$17,670,463	$17,070,613	(10.52)%
Springfield	$22,698,992	$23,735,619	$26,135,040	15.14%
Peer Average	$25,823,136	$26,833,874	$27,988,621	8.39%

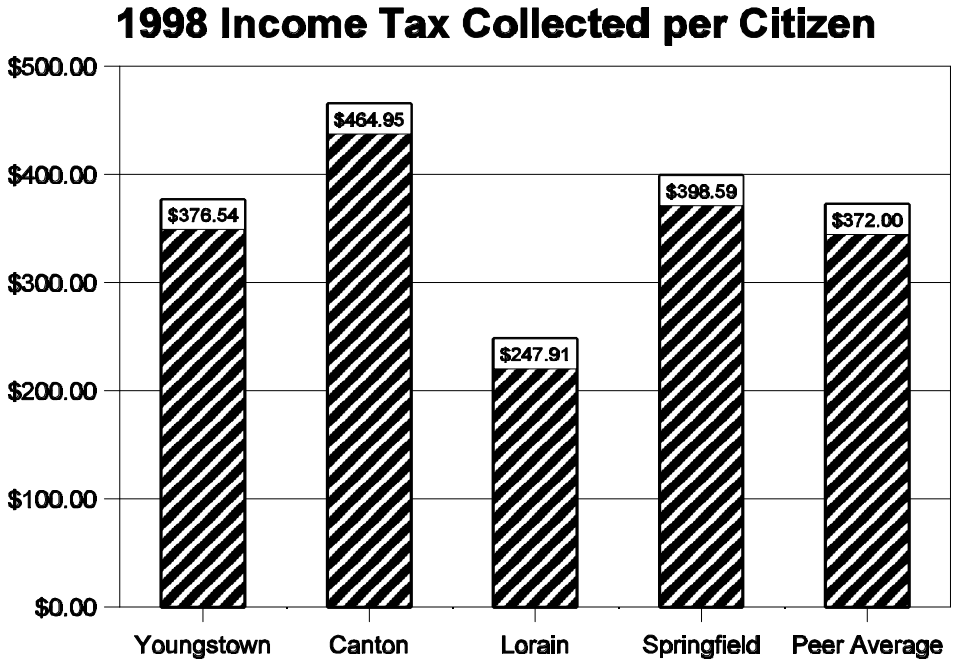
Source: City Financial Statements, 1998 unaudited Youngstown information



Youngstown collected the second lowest amount of income tax per citizen in 1998 as compared to the peer cities even though it had the highest income tax rate in effect for that period. The higher income tax rate also affected the percentage increase Youngstown realized over the past three years. However, it should be noted that Springfield realized a larger percentage increase than Youngstown over the past three years without increasing their tax rate. See the Income Tax section for a detailed analysis of income tax collections.

Gross Income Tax Collections per Citizen				
	1996	**1997**	**1998**	**% Change 1996-1998**
Youngstown	$318.99	$352.68	$376.81	18.13%
Canton	$416.22	$445.30	$464.95	11.71%
Lorain	$273.80	$254.91	$247.91	(9.46)%
Springfield	$337.13	$357.68	$398.59	18.23%
Peer Average	$336.53	$352.64	$372.07	10.56%

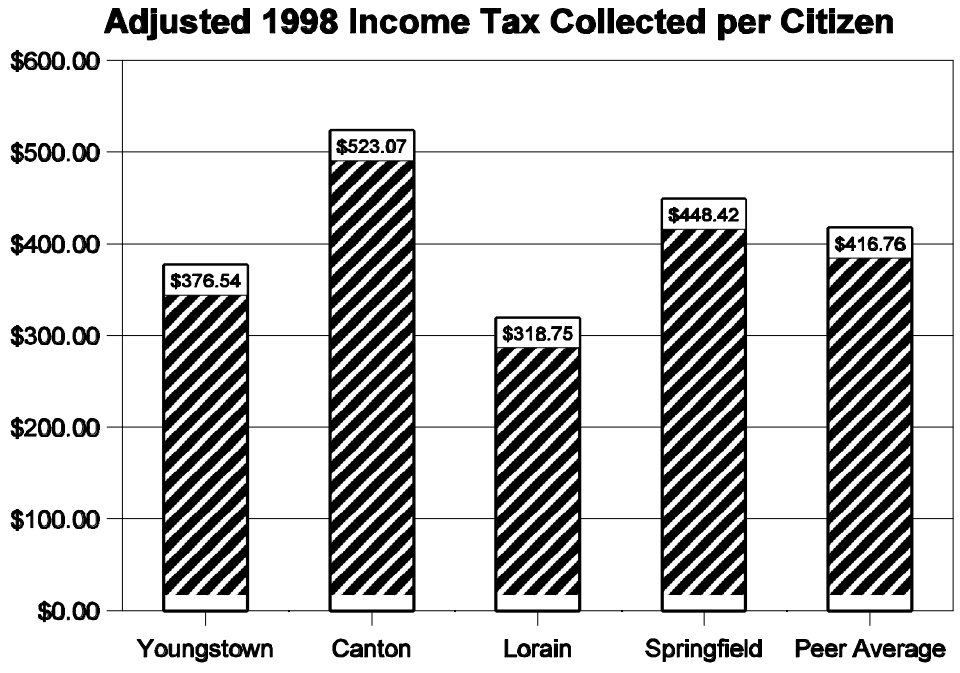
Source: City Financial Statements, 1998 unaudited Youngstown information



Because Youngstown's higher income tax rate for 1997 and 1998 skews the analysis of income tax collected per citizen, the gross income tax amounts for the other peer cities were adjusted to reflect Youngstown's 2.25 percent income tax rate for those years. Youngstown's income tax collections per citizen amount is still the second lowest, but is substantially less than the amount for Canton and Springfield. A detailed analysis of income tax collections is provided for in the Income Tax section.

Adjusted Gross Income Tax Collections per Citizen				
	1996	**1997**	**1998**	**% Change 1996-1998**
Youngstown	$318.99	$352.68	$376.81	18.13%
Canton	$416.22	$500.96	$523.07	25.67%
Lorain	$312.92	$327.74	$318.75	1.86%
Springfield	$337.13	$402.39	$448.42	33.01%
Peer Average	$346.31	$395.94	$416.76	20.34%

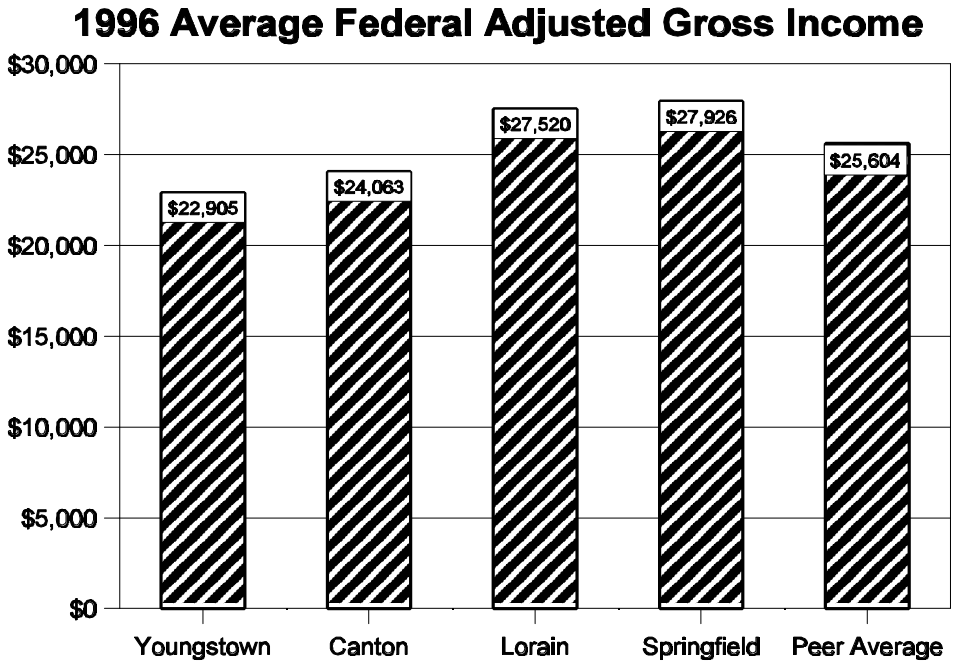
Source: City Financial Statements, 1998 unaudited Youngstown information



While the State of Ohio does not monitor tax returns filed by municipality, it does track the returns filed by individual school district. As a city school district's boundaries are similar to those of its city, the data reported for the City school district should be reflective of the entire city population. Youngstown's average federal adjusted gross income amount reported for 1996 was the lowest among the peers and approximately $2,700 less than the peer average. The average federal adjusted gross income amount in Youngstown has increased at a slightly lower rate over the past three years in relation to the peer average.

Average Federal Adjusted Gross Income Amount				
	1994	**1995**	**1996**	**% Change 1994-1996**
Youngstown	$21,739	$22,417	$22,905	5.36%
Canton	$22,421	$23,540	$24,063	7.32%
Lorain	$26,471	$26,985	$27,520	3.96%
Springfield	$26,274	$27,168	$27,926	6.29%
Peer Average	$24,226	$25,028	$25,604	5.68%

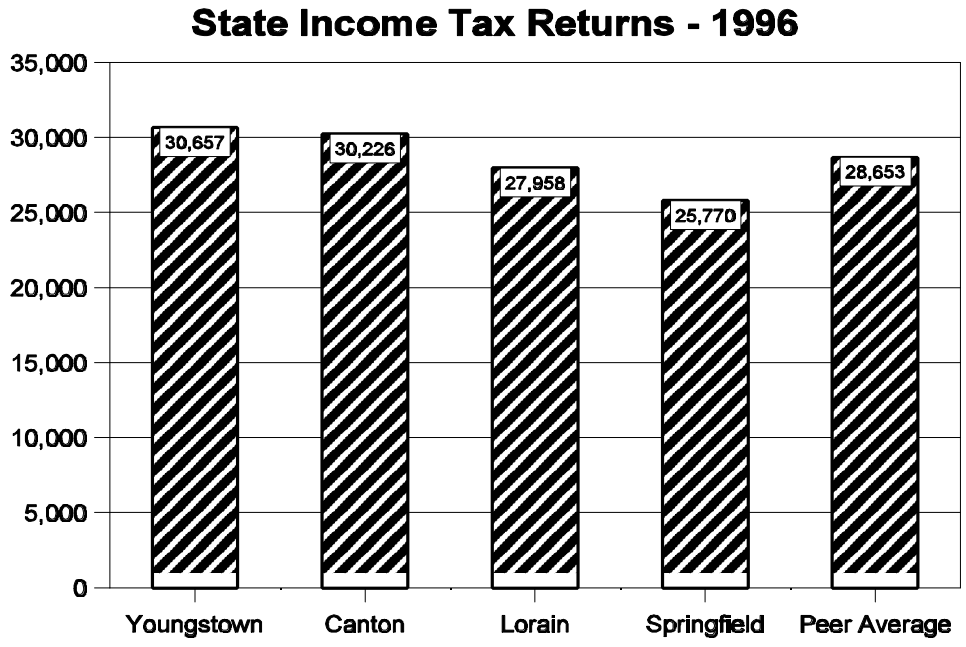
Source: Ohio Department of Taxation



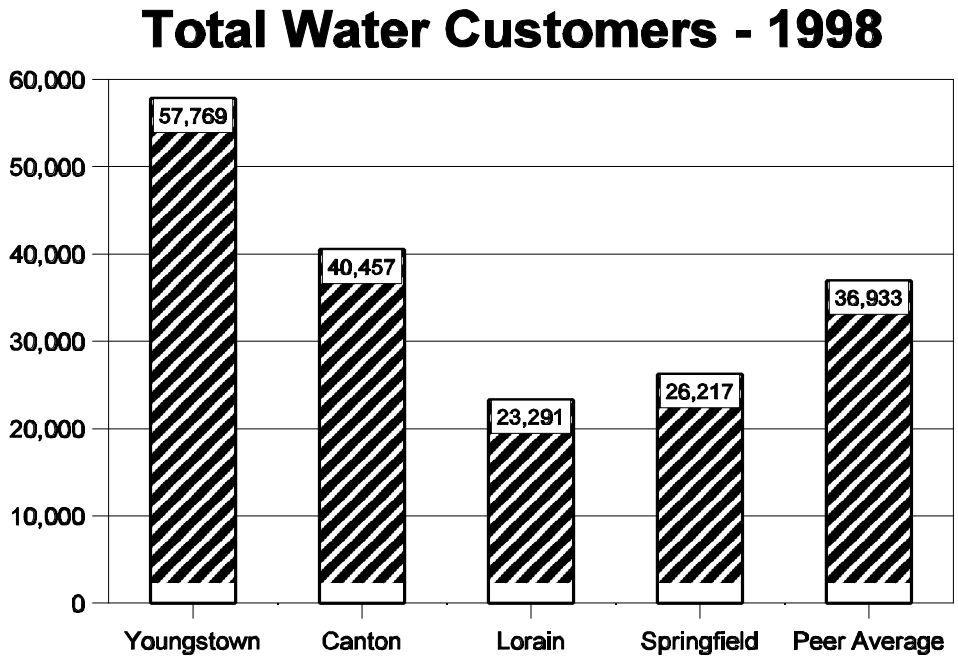
While the State of Ohio does not monitor tax returns filed by municipality, it does track the returns filed by individual school district. As a city school district's boundaries are similar to those of its city, the data reported for the City school district should be reflective of the entire city. Youngstown's total number of state income tax returns filed for 1996 was the highest as compared to the peer cities. However, as noted in the Income Tax section, Youngstown has the fewest individual city income tax returns filed when compared to the peer cities. This indicates that Youngstown has not effectively enforced its mandatory filing requirement. See the Income Tax section for additional discussion on income tax collection.

Number of State Income Tax Returns Filed				
	1994	**1995**	**1996**	**% Change 1994-1996**
Youngstown	31,310	31,160	30,657	(2.09)%
Canton	30,384	30,207	30,226	(0.52)%
Lorain	27,454	28,061	27,958	1.84%
Springfield	25,894	26,054	25,770	(0.48)%
Peer Average	28,761	28,871	28,653	(0.37)%

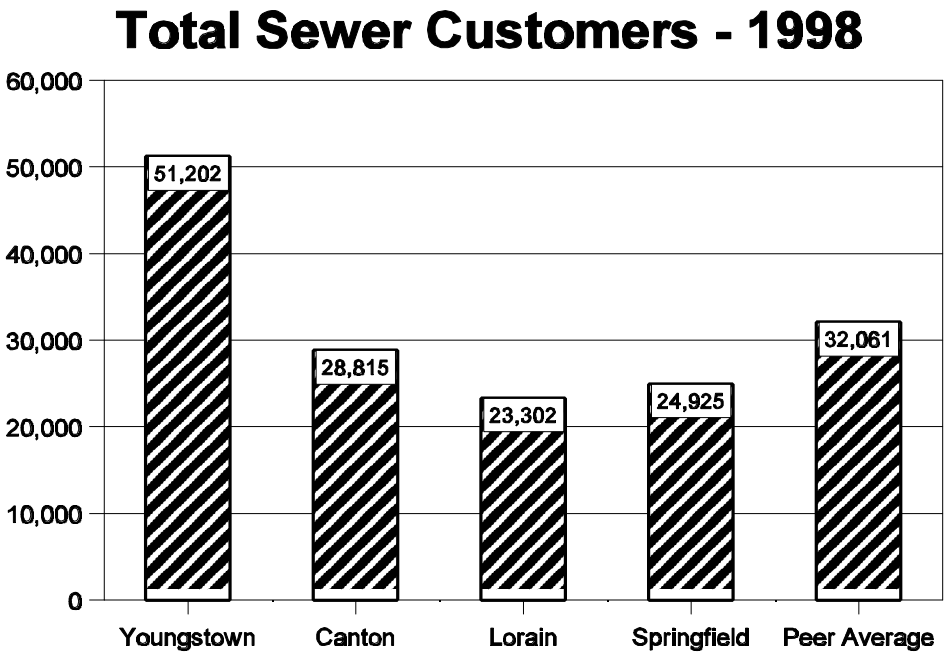
Source: Ohio Department of Taxation



Youngstown has the largest number of water customers in the peer group for 1998. Youngstown's total number of water customers is approximately 56.4 percent higher than the peer average. Of Youngstown's total water customers, approximately 27,300 are county residents. Youngstown is responsible for maintaining the water infrastructure outside the City limits. Therefore, the water department in Youngstown maintains approximately 22 percent more miles in water mains than the next largest peer city.



Youngstown has the largest number of sewer customers in the peer group for 1998. The total number of sewer customers in Youngstown exceeds the peer average by approximately 59.7 percent. However, it should be noted that 22,719 of the total 51,202 customers reported for Youngstown are county residents. The City of Youngstown is not responsible for maintaining the sewer infrastructure outside the city limits.



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Employee Related Issues

Introduction

This section focuses on employee related issues within the City of Youngstown (the City) and is divided into three separate sections: (A) Contractual Issues, (B) Benefits Administration and (C) Workers' Compensation. The objective of this section is to analyze each of the City's bargaining agreements and benefits packages, as well as the administration of its workers' compensation program, and illustrate potential areas within those sections which could lead to financial implications or operational improvements. Background information and findings are addressed in each subsection, concluding with commendations of the City's best practices and recommendations for its further consideration.

Comparisons of Canton's, Lorain's, and Springfield's (the peer cities) bargaining agreements were completed during the assessment of the City of Youngstown's contractual issues. These comparisons focus on the street, water, and wastewater departments. In Youngstown, each of these departments is represented by a separate union, whereas in each of the peer cities, one bargaining unit represents all three. As a result, issues that pertain to one of the unions in Youngstown may not necessarily be relevant to the other Youngstown unions. Consequently, each agreement is assessed against the other Youngstown agreements as well as being assessed against the peer cities' collective agreements. Benefits packages exhibit similar differences.

A. Contractual Issues

Background

Certain major contractual issues which have been assessed and compared to the peer cities are illustrated on the following pages. Because contractual obligations have the ability to directly and significantly impact the City's operating budget, many of the major contractual issues have been assessed to show their resultant financial implications. The implicit assumption is that implementing any of the associated contractual recommendations would require additional union negotiations.

Performance Measures

The following is a list of performance measures that were used to review the City of Youngstown's bargaining unit agreements:

- Assessment of contract administration (collective bargaining) and contractual issues
- Effectiveness of employer/employee relations program regarding grievances and disciplinary actions
- Assessment of the of the City's compensation package
- Assessment of personnel related issues as defined by the City charter
- Utilization of paid leaves

Findings/Commendations/Recommendations

General Information

F2.1 City of Youngstown employees are represented by eight distinct bargaining units. The Water Department is represented by the American Federation of State, County and Municipal Employees (AFSCME) Local 2726, the wastewater employees are represented by the United Steelworkers' Union, the street department is represented by the International Brotherhood of Teamsters, the clerical workers are represented by the AFSCME Local 2312 bargaining unit, the firemen are represented by the International Association of Firefighters, the police patrol officers are represented by the Youngstown Patrol Association, in conjunction with the Ohio Patrolmen's Benevolent Association, and the police ranking officers are represented by the Youngstown Professional Ranking Officer's Organization. The most recent addition to the City's union pool, the 911 dispatchers, was transferred to the City from the county in March of 1997. The fire and police forces, along with the clerical and 911 dispatch employees will not be assessed as a result of the pre-determined scope of engagement.

F2.2 The two police contracts expire November 30, 2000, while the 911 dispatchers and the Teamsters' contracts expire on December 31, 2000. The AFSCME 2312 bargaining unit contract for clerical workers expires June 30, 1999, while the AFSCME 2726 contract for water department employees and the firemen's contract expire December 31, 2001 and August 31, 2001, respectively. The labor attorney has only been in the position for eight months and consequently, has not personally negotiated any of the City's contracts. During recent bargaining cycles, the City has attempted to homogenize all union contracts, consequently much of the language found in the contracts is consistent.

F2.3 **Table 2-1** illustrates the City's bargaining units and associated members.

Table 2-1: 1997 Union Membership

Classification	Union Affiliation	# of Members in FY 1997-98
Clerical employees	AFSCME Local 2312	101 members/ 6 fair share
Water Department employees	AFSCME Local 2726	99 members
Wastewater Department employees	United Steelworkers' Local 6897	62 members
Street Department employees	Teamsters' Brotherhood Local 377	42 members
Police Department employees	Youngstown Police Association- Ranking Officers Unit Youngstown Police Association- Patrol Officers Unit	194 total members/ 1 fair share
Fire Department employees	International Association of Firefighters Local 312	134 members
Total Union Employees		**639 members**

Source: 1997 City of Youngstown payroll statistics.

F2.4 The City employs 889 people, 639 of which (71.9 percent) belong to one of the above unions. All City employees not considered management are either required to join the union or pay a fair share fee. Of the 639 total union members illustrated above, only seven (1.1 percent) pay the fair share fee.

F2.5 **Table 2-2** compares the number of bargaining units for each of the peer cities.

Table 2-2: Comparison of Organized Labor Environment

	Youngstown	Canton	Lorain	Springfield
# of Bargaining Units	8	6	6	5

Severance and Leave Policies

The following section compares the severance and leave policies within the City of Youngstown. Such areas addressed in this section include sick and vacation leave policies, severance policy and holiday pay.

F2.6 **Table 2-3** compares some key contractual issues between the City of Youngstown and the peer cities.

Table 2-3: Peer City Contractual Issues Comparison

City	Youngstown	Canton	Lorain	Springfield
Sick Leave Accrual				
Street	15 days/year	15 days/year	15 days/year	15 days/year
Water	Same			
Wastewater	Same			
Percent of Severance Paid		100% vacation 100% sick leave maximum of 150 days	100% vacation 100% sick after 25 years of service 75% sick 20-24 years 50% sick 10-20 years 0% less than 10 years maximum of 120 days	100% vacation 62.5% sick leave in excess of 300 hours.
Street	100% vacation 35% sick leave No Maximum Payable upon separation			
Water	Same			
Wastewater	Same			
Rate of Sick Leave Incentive		0 days taken: 2 bonus days. 1 day taken: 1 bonus day	n/a [1]	Annual payout if any employee uses less than 48 hours paid at all or any part of the unused 48 hours, plus 8 hours, but may not be taken if the sick leave balance falls below 300 hours.
Street	semi-annually: $182.84			
Water	quarterly: $94.65			
Wastewater	semi-annually: $220.78			
Holiday Wage	Regular pay plus:	Regular pay plus 1 1/2 times hourly rate	Regular pay plus 1 1/2 times hourly rate	Regular pay plus 1 1/2 times hourly rate
Street	1 1/2 times hourly rate			
Water	1 3/4 times hourly rate			
Wastewater	1 3/4 times hourly rate			

Source: City of Youngstown and peer City collective bargaining agreements
[1] Nothing stated in contract

F2.7 The City of Youngstown has negotiated identical severance payout packages for all employee bargaining units. The contracts state that "when an employee retires or leaves the City for any other reason, the City shall pay him/her the full value of his/her accumulated vacation time

and 35 percent of the value of his/her accumulated sick leave." This severance payment shall be in the amount of the current basic hourly wage or on the basis of the hourly wage at the time the benefit was accrued, whichever is greater.

R2.1 Each of the peer cities places restrictions on the amount of accrued sick leave which can be converted upon termination of employment. The City of Youngstown does not place a limit on sick leave conversion. The City should consider limiting the severance payout by introducing a maximum sick leave reimbursement. The City also could be incurring an excessive financial burden due to the lack of a minimum years of service requirement for sick leave reimbursement. The City's contracts allow for reimbursement of sick leave without service time thresholds, consequently City employees can cash out accumulated sick time regardless of the length of time served with the employer.

One scenario would be to incorporate a limit to the amount of sick days which can be paid out at severance for all employees hired after its implementation. One option the City could consider is the suggested payout for school districts in the Ohio Revised Code section 124.39 which provides a payout of 25 percent of accrued but unused sick leave credit only upon retirement (consequently excluding any other type of severance of employment), up to 120 sick days (30 day payout), for persons with ten or more years of service.

However, because this may be unfeasible in the negotiation process, management should consider alternative proposals based upon precedents employed in similar cities. One proposal would be for the City to implement a maximum severance payout policy of 120 days.

The reimbursement strategy exhibited in the City of Lorain may serve as a model for reshaping Youngstown's severance payout. While it does incorporate a 120 day payout maximum, the graduated scale rewards those bargaining unit members who have maintained the longest relationship with the City. At the same time, the City can significantly control severance payments by limiting benefits to those employees who have remained with the City for longer than ten years. A renegotiated severance payout policy would only apply to employees hired after the new policy was implemented.

Table 2-4: Proposed Severance Payout Rates for the City of Youngstown

Years of Service	Severance Payout
0- 10 years	0% accumulated sick leave reimbursed
10-20 years	25% accumulated sick leave reimbursed at average of three highest hourly rates, maximum reimbursement of 120 days
20 years and greater	35% accumulated sick leave reimbursed, maximum reimbursement of 120 days

Following guidelines suggested by Ohio Revised Code section 124.39 for state and civil service employees, which reduces the sick leave payout from 35 to 25 percent of the employee's accrued total after ten years of service, and capping the maximum accrual at 120 days (30 day payout), would significantly decrease severance payout levels for the City of Youngstown. Based upon the alternative scenario presented in the table above, the City would see a cost avoidance associated with the 120 payout maximum, the ten-year threshold, and the rates of reimbursement for most departing employees. Because a renegotiated severance payout policy would only apply to newly hired employees, the district would not realize a financial benefit until such time new employees are eligible for retirement. **Table 2-5** illustrates the savings associated with each proposal.

Table 2-5: Severance Proposal Savings

Description of Proposed Severance Payout	Total Cost to the City	Savings Associated with Proposal
Existing Youngstown Severance Payout	$3,254,676	– –
Existing Youngstown Payout incorporating 120 day Maximum	$3,083,642	$171,034
Severance Payout comparable to Peer Cities	$2,733,106	$521,570
Severance Payout comparable to Ohio Revised Code Statutory Provision	$1,323,247	$1,931,429

Financial Implications: Based on **Table 2-5**, the City of Youngstown should be able to implement a severance payout policy which is comparable to the peer cities. Implementation of such a policy would result in a $521,570 cost avoidance for the City.

F2.8 Employees in all of the City bargaining units are granted 15 sick days per year, based upon a 1.25 day per month accrual rate. Aside from a provision in the AFSCME 2312 contract which states that the accumulation of sick leave is limited to 187.5 days for employees hired after June 30, 1993, none of the contracts limit the amount of sick time employees may accrue.

F2.9 **Table 2-6** illustrates the amount of sick leave used by department. City of Youngstown employees averaged 8.3 sick days taken in 1998. The street and waste water departments averaged 11.7 sick days respectively, the two highest averages of all City departments. Overtime costs at these departments were significant due, in part, to a high number of sick day occurrences. The fire department exhibited the lowest average in 1998 at 5.4 sick days per employee.

Table 2-6: Average Number of Sick Leave Days Taken Per Employee

Department	Number of Employees	Number of Sick Days Taken	Average Number of Sick Days Per Employee	Overtime Costs
Executive	58	412	7.1	$54,107
Police	240	2,073	8.6	$584,012
Fire	142	768	5.4	$257,969
Health	35	354	10.1	$4,179
Public Works	58	499	8.6	$62,646
Waste Water	82	961	11.7	$263,036
Street Department	54	632	11.7	$91,133
Municipal Court	44	258	5.9	$0
Water	115	888	7.7	$123,687
Totals	**828**	**6,845**	**8.5**	**$1,440,769**

Source: 1998 payroll journals

R2.2 The City should make reducing the amount of sick leave used a high priority. The average number of sick days taken in the City of Youngstown was 8.3 in 1998. The average number of sick days taken was almost twice the amount taken by the average 12-month government worker, 4.7 days, as reported by the Bureau of Labor Statistics. Additionally, because of the excessive amount of sick leave taken per employee in certain departments, and the costs associated with overtime to compensate for sick absences, Youngstown may need to implement policies to assist with the reduction of sick leave which may include:

- Implementing a sick leave abuse policy such as a rolling year occurrence policy where employees are held accountable for the number of times taken off rather than the length of each time taken off.
- Requiring all employees to complete a standardized sick leave explanation form.
- Requiring sick leave to be a component of the employee's evaluation.

Although the City has recently been able to negotiate excluding sick leave days from "hours worked" for the purposes of calculating an employee's overtime pay, it does not appear that effective controls have been established to ensure this clause is being adhered to city-wide.

In order for sick leave management to be effective, Youngstown should review and implement city-wide sick leave policies. Additionally, all administrators should go through

initial and on-going training to ensure complete understanding of the policies and consistent implementation of such policies.

Financial Implications: Assuming an average employee hourly rate of $15, the payment of sick leave cost the City approximately $821,000 in 1998. The City could realize annual cost savings between $209,000 and $353,000 by reducing the number of employee sick days taken by 25 percent or to the average of 12-month government workers of 4.7 days per employee, respectively. This cost savings should be realized through a reduction in overtime, reduction in part-time employees and increased productivity.

F2.10 All contracts stipulate that "the department head may require an employee to furnish a satisfactory written, signed statement to justify the use of sick leave." None of the contracts makes a doctor's excuse necessary for extended absenteeism, which is contrary to the practice of many other local government contracts in the state of Ohio. However, Section 163.08 of the City Administrative Code requires an employee to provide a signed, certified statement when off on sick leave for three or more consecutive days. While language in the City's contracts makes the supervisor responsible for requesting a doctor's excuse, the City Administrative Code holds the employee responsible for providing such documentation.

R2.3 During future negotiation sessions with employees, the City should rectify the conflict between present contract language and the City Administrative Code requirements. An effective sick leave usage policy from the City of Lorain is documented below.

"All Bargaining unit employees shall be required to furnish a signed sick leave form to his/her supervisor within forty-eight (48) hours of his return to work to justify the use of sick leave or the employee will not be paid for the use of sick leave on the next scheduled pay-day and disciplinary action may be implemented ...If medical attention is required *or* if the employee is absent for three or more consecutive work days, a certificate stating the nature of the illness from a licensed physician shall be required to justify the use of sick leave."

F2.11 As indicated in **Table 2-6**, sick leave taken has the ability to increase overtime costs incurred by the City. The responsibilities of departmental employees using sick leave must either be maintained through staff redeployment or through overtime upon return from the leave taken. Overtime is calculated by hours worked in excess of eight in one 24 hour period.

The Fair Labor Standards Act (FLSA) sets forth the minimum wage that must be paid to employees covered by the act. In addition, it requires a premium wage (overtime) to be paid for hours worked in excess of forty during a given work week. These requirements are also reflected in Ohio law. In determining the total hours worked, the City is not required to include hours in active pay status when work is not actually performed. Examples include sick leave, personal leave, professional leave, compensatory leave and vacation leave used.

The City includes holidays, vacation, personal days and any other time spent in active pay status when calculating the total hours worked for overtime pay. Providing overtime provisions which are much greater then outlined in the FLSA and Ohio law has the potential to be a costly practice to the City.

R2.4 Because of the overtime currently being expended at the City, Youngstown should review its current overtime policy and consider negotiating the policy to be more in line with the guidelines set forth by the FLSA. The City should consider limiting leaves that are included in the "active pay status" category when calculating overtime to only include vacation, holidays and bereavement leaves. Departments should also have adequate cross-training procedures in place to ensure responsibilities are met in the event of employee absence.

F2.12 Sick leave incentives can be an effective means of deterring sick leave abuse. However, these incentives can often be very costly to the City if not calibrated appropriately. Incentive periods as short as three and six months may be overly generous when compared with standard practices. Of the four peer cities, Youngstown has the shortest incentive intervals (Lorain does not offer a sick leave incentive).

F2.13 Each of the unions has implemented a sick leave incentive as illustrated in **Table 2-7**. If an employee does not take any sick leave within the City-determined six-month time period, or three-month period for water and fire department employees, the City will reimburse said employee at the appropriate rate. Of the six different incentives, the wastewater employees and the firefighters have the greatest maximum potential for sick leave incentives at $441.56 per bargaining unit. The firefighters are eligible for sick leave incentives at $94.65 per three-month period, while the steelworkers' union members gain $220.78 per six-month period. The clerical workers' bargaining unit incentive is the least costly to City management at $100 for each six-month period.

Table 2-7: Sick Leave Incentives by Bargaining Unit

Bargaining Unit	Union-Stated Incentive for FY 1998	Maximum Potential Annual Incentive
AFSCME 2312- Clerical	$100 for each six-month period[1]	$200.00
AFSCME 2726- Water	$94.65 for each three-month period	$378.60
Teamsters' Local 377- Street	$176.65 For each six-month period	$353.30
Steelworkers' Local 2163- Wastewater	$220.78 For each six-month period	$441.56
Firefighters' Local 312	$110.39 For each three-month period	$441.56
Police Association Units	$126.16 For each six-month period [2]	$252.32

[1] The six-month periods are defined in the union contracts as Jan. 1 to June 30 inclusive, and July 1 to Dec. 31 inclusive. The three-month periods, which are all inclusive are as follows: Jan. 1-March 31, April 1-June 30, July 1-September 30, October 1-Dec. 31. Under no circumstances will the incentives be pro-rateable.
[2] 1997 data

F2.14 Because of the short time frame of the City's sick leave incentives during 1998, Youngstown disbursed more than one thousand sick leave incentives to its employees. The greatest number of these incentives went to the firefighters and the water department employees whose incentives are paid quarterly. The police department had the third highest number of incentives at 163.

F2.15 **Table 2-8** indicates the amounts of the sick leave incentives paid to each department. Citywide, the average incentive payout was approximately $190 per employee. Aside from the fire department, which uses quarterly reimbursements and exhibits excellent attendance, the water and waste water departments and the municipal court employees had the highest average incentive payout per employee at $199, $174 and $180 respectively. The fire and police departments were responsible for 55 percent of the sick leave incentives paid out in 1998.

Table 2-8: Sick Leave Incentive Remittance by Department

Department	Total Number of Employees	Total Amount of Sick Leave Incentives	Avg Incentive Payout Per Employee	Number of Employees Paid Incentive	Total Number Incentives Per Unit
Executive	58	$6,346	$457	29	42
Police	240	$20,581	$84	105	163
Fire	142	$46,587	$324	137	420
Health	35	$3,196	$86	14	22
Public Works	58	$6,063	$105	27	43
Waste Water	82	$14,086	$174	43	68
Street Department	54	$5,123	$95	21	29
Municipal Court	44	$8,833	$180	29	50
Water	115	$23,075	$199	86	223
Totals	**828**	**$133,890**	**$189**	**491**	**1,060**

Source: 1998 payroll journal

R2.5 In 1998, sick leave incentives cost the City approximately $134,000. As a result of truncated incentive periods and significant payment levels, the City may not be achieving the operational effectiveness necessary to offset the costs associated with such incentives. As indicated previously, sick leave abuse can lead to increased overtime costs and lower levels of productivity. Consequently, sick leave incentives, when effectively structured, have the potential to indirectly contain overtime costs. The City should review existing incentive plans and consider restructuring agreements to produce more effective incentives and reduce the costs associated with sick leave abuse.

The City should consider using sick leave incentives modeled after the City of Canton in which employees are provided two additional personal days if zero sick days are taken in one year. One additional personal day is awarded if one sick day is taken within a one-year period. This sick leave incentive policy is more effective at preventing sick leave abuse as it increases the period for which employees are held accountable for their attendance.

Financial Implications: By revising the sick leave policy to six-month incentives paid out at $100 per employee, the City could generate a savings of approximately $28,000 annually. Savings were calculated using the total number of incentives per unit in 1998 and adjusting the corresponding payouts to the AFSCME 2312 level. By discontinuing the sick leave

incentive policy, the City could realize an annual cost savings of nearly $134,000, however it should be noted that this report only advocates discontinuing the incentive program in the most severe of fiscal conditions.

F2.16 **Table 2-9** provides a comparison between the peer cities regarding vacation benefits. The City of Youngstown provides five weeks of vacation after seventeen years and six weeks after 23 years of service, which is higher than the benefits provided by two of the three peer cities. The City of Youngstown's "use it or lose it" policy encourages longtime City employees to use all vacation and they have the potential to be absent from work on vacation for more than 12 percent of the year.

Table 2-9: Peer City Comparison of Vacation Benefits

Years of Service	Youngstown	Canton	Lorain	Springfield
After 1 year of service:	2 weeks	1 week	2 weeks	1 week
After 5 years of service:	3 weeks	3 weeks	2 weeks	3 weeks and 1day
After 11 years of service:	4 weeks	4 weeks	3 weeks	3 weeks and 3 days
After 17 years of service:	5 weeks	5 weeks	4 weeks	4 weeks and 1 day
After 23 years of service:	6 weeks	6 weeks	4 weeks	4 weeks and 3 days
Maximum/years of service	6 weeks/ 23 years	6 weeks/ 21 years	5 weeks/ 30 years	5 weeks and 3 days/ 30 years
Maximum Accrual Rate	"Use it or Lose it" Policy	Employees can carry over not more than 12 days into the next year. Can bank up to 15 weeks vacation payable at retirement	The amount an employee can earn in 3 years	320 hours

Source: Bargaining unit agreements

F2.17 The vacation policy at the City of Youngstown is consistent across the AFSCME, Steelworkers' and Teamsters' contracts. Each calls for vacation to accrue based upon years of service with the City. Consequently, after 23 years of service, employees can earn six weeks of vacation annually. In section 85-602 in the City's codified ordinance, all employees in the City of Youngstown are under a "use it or lose it" policy with regard to vacation, meaning employees are not permitted to carry vacation over into the next year. Although each contract permits bargaining unit members to liquidate vacation benefits in cash, City

personnel indicate that this option has never been used due to the full use of vacation leave. While the "use it or lose it" policy has the potential to increase vacation leave taken, as previously evidenced, the City may benefit through severance payout reductions.

R2.6 The City's vacation benefits are more generous in the first year than two of the three peer districts. Ideal vacation policies incorporate advance scheduling requirements of six months and pre-approval of management to ensure proper shift coverage. The City should collaborate with the unions to decrease the high end vacation benefits to be more in line with the peer cities by either increasing the years of service requirement, or decreasing the length of vacation time provided by the City.

The City should also collaborate with the unions to develop a more effective vacation leave system. The City could utilize any number of options to improve the efficiency of the system. Beyond requiring all employees to conform to the "use it or lose it" policy, one option the City could utilize would be to retain the "use it or lose it" policy to a threshold of three weeks, with any vacation eligibility beyond three weeks being subject to approval for carry over. By negotiating a reduction in high end vacation lengths and limiting the amount of carry-over time in the absence of a "use it or lose it" policy, the City could potentially see a reduction in overtime costs due to less absences from work due to vacation time.

F2.18 Vacation time accrues based on employee anniversary dates. Consequently, payroll personnel are responsible for tracking vacation balances for each employee as well as changes in accrual rates. However, the City's contracts advance increased vacation rates to "January 1 in the calendar year in which the appropriate anniversary is completed." As a result of this clause, an employee hired November 30 shall be eligible to use his accrued vacation the following month, thereby undermining the provision that stipulates employees must work for one full year before being eligible to use vacation. In addition, the same employee would receive his year five rate increase one month after his fourth anniversary.

R2.7 The City should discontinue the process of advancing vacation time as it provides benefits to employees which have not been earned. To alleviate excessive administration, the City could benefit from a more uniform vacation structure which would allow employees to accumulate vacation time per pay period as opposed to lump sum payments before they have fully earned it.

One approach would be to allow employees to earn vacation incrementally but only use what portion they have earned as of the previous pay period date after being employed for one year. Each pay period, employees would earn a certain number of hours based on their service time with the City. Based on 26 pay periods, one scenario would have a new employee earning 3.1 hours per pay period, thereby earning approximately two weeks of vacation over the course of a year, while a ten-year employee could earn 4.6 hours per pay thereby earning approximately three weeks of vacation over the course of one year.

The City might also consider providing employees the ability to earn vacation time monthly until a standard turnover date such as January 1. Effective January 1, the employee's balance is increased to the full entitlement amount. Upon reaching the employee's anniversary date, usage of this time is permitted. Effective the following January, maximum entitlement and full usage is provided to the employee. Additional weeks provided based on longevity could be handled in the same fashion. With this approach, the City could effectively eliminate the vacation advancement process by adjusting accrual rates when necessary on the ensuing January 1 rather than the "January 1 in the calendar year in which the appropriate anniversary is completed".

F2.19 The Teamsters' and AFSCME 2726 agreements stipulate that employees shall maintain a minimum of 120 hours of accrued sick leave. Any employee without such accumulation is required to submit a signed medical practitioner's statement in order to receive sick leave payment.

C2.1 Controlling sick leave abuse remains an important technique in the promotion of operational efficiency. Sick leave minimum standards are an effective means of controlling sick leave abuse. The street department has begun taking the necessary steps in addressing sick leave abuse problems.

R2.8 If employees are continually absent, departments will suffer accordingly. Each of the remaining bargaining units would benefit from an absence control clause that makes physicians' statements mandatory if accrued sick leave dips below a minimum threshold.

Employee Issues and Work Policies

F2.20 **Table 2-10** compares the bargaining units within the City as well as the peer cities on employee issues and work policies.

Table 2-10: Peer City Contractual Issues Comparison

City	Youngstown	Canton	Lorain	Springfield
Length of Workday				
Street	8 hours, including lunch periods	8 hours excluding lunch periods	8 hours excluding lunch periods	8 hours excluding lunch periods
Water	8 hours, excluding lunch periods			
Waste Water	Same as Water			
Length of Probationary Period				
Street	None stated for new employees	90 working days	None stated for new employees	90 working days
Water	60 working days			
Waste Water	90 working days			
Days to File a Grievance				
Street	14 days	5 days	3 days	5 days
Water	Same			
Wastewater	Same			
Meal Ticket Allowance (After 2 additional hours, then every 4 hours; For emergency call out- every 4 hours)	Quarterly:	30 minutes paid break period	n/a[2]	n/a[2]
Street	$5.00/ meal ticket			
Water	$5.54/ meal ticket			
Wastewater	$5.25/ meal ticket			
Exposure Pay				
Street	n/a[2]	n/a[2]	n/a[2]	n/a[2]
Water	n/a[2]			
Wastewater	$535.61			

City	Youngstown	Canton	Lorain	Springfield
Temporary Pay Rate				
Street	In excess of 1 hour	n/a[2]	n/a[2]	In excess of 4 hours
Water	same			
Wastewater	same			
Minimum Hours Received for Call-Out Pay				
Street	4 hours at overtime rate	4 hours at overtime rate	4 hours straight time or time and a half for actual hours worked, whichever is greater	3 hours at overtime rate
Water	n/a[2]			
Waste Water	4 hours at overtime rate			
On-Call Pay Amounts				
Street	n/a[2]	Standby rate of 2 hours overtime rate	n/a[2]	n/a[2]
Water	n/a[2]			
Waste Water	$80.33			
Salary Increases				
Street	**1998-99-2000** 0%-4%-0%[1] **1996-97-98**	**1997-98-99** 4.5%-4%-4%	**1998-99-2000** 3%-3%-3%	**1999-2000-2001** 3%-3.5%-3.5%
Water	3.5%-3.5%-3.5%			
Wastewater	3.5%-3.5%-3.5%			
Pension Pick-Up				
Street	Yes	Yes	No	No
Water	Yes			
Wastewater	No			
Employee Evaluation				
Street	n/a[2]	Yes- Annually	n/a[2]	Yes- Annually
Water	n/a[2]			
Wastewater	n/a[2]			
Longevity Pay (per year of service)	After 2 years, employee receives the indicated amt per year of service, paid annually:	After 3 years: $45 per year of service, paid annually	After 3 years: $0.1731 added to hourly rate+ $0.0577 for each additional year worked	After 5 years: $80 per year of service, paid annually
Street	$43.46			
Water	$36.46			
Wastewater	$43.48			

City	Youngstown	Canton	Lorain	Springfield
Residency Requirement				
Street	Yes- After Jan. 1, 1988	Yes- After Jan. 1, 1994	Yes- After May 24, 1995	n/a[2]
Water	Same			
Wastewater	Same			

Source: City of Youngstown and peer city collective bargaining agreements

[1] Although the agreement calls for no increases in 1998 and 2000, the City has agreed to take on the employees' share of the PERS contribution with 4.5 percent being picked up in 1998 and the remainder of the contribution being assumed in the final year of the contract.

[2] Nothing stated in contract

F2.21 In the absence of a personnel department, job descriptions for all employees are kept on file in the civil service office. As evidenced in the ensuing sections of this report, a large majority of these job descriptions are not current. Current job descriptions are important to operational effectiveness for the following reasons:

- Articulating job content to employees and supervisors
- Establishing individual performance expectations
- Providing criteria for recruitment and selection
- Avoiding legal liability- job descriptions should be appropriate and legally defensible
- Utilizing as a career ladder tool

R2.9 Job descriptions for all employees should be updated. An update of current job classifications will provide the City with the foundation for establishing internal equity and external competitiveness with respect to the wide array of job positions. In addition, to updating the job descriptions to adapt to changing times and environment, the City must be cognizant of the required compliance with ADA requirements. The following issues can be more clearly defined by updating job descriptions:

- Basic pay policies
- Relation between compensation and organizational value
- Raises and adjustments
- Overtime and premium pay
- Entry level compensation

In addition to updating the job descriptions to adapt to a changing environment, the City must rewrite job descriptions to include the following types of information:

- Job title
- Salary information
- Specific Responsibilities

- ! Primary interactions
- ! Budget and asset responsibilities
- ! Equipment operations requirements
- ! Level of decision making
- ! Knowledge/ skills/ abilities requirements
- ! Qualifying education, training and experience
- ! Special job requirements

F2.22 Youngstown's contracts are silent on the issue of evaluations of performance of duties. Currently, annual evaluations are not being completed for City employees.

R2.10 The City of Youngstown should negotiate evaluations for all employees to be conducted on a departmental level at least once annually. Evaluations are important for a variety of reasons not limited to the following:

- ! To ensure employees receive clear feedback on areas for improvement and to surface and document disciplinary problems
- ! To improve the quality of service provided by the City and bring about professional improvement of the employee
- ! To provide evidence about the quality of the employee's professional performance
- ! To improve the efficiency and effectiveness of employees in carrying out the duties of the job description
- ! To improve employee morale
- ! To monitor employees' success and progress

F2.23 Each of the City's union contracts includes a "call out to perform job not in classification" clause which states that in the event that an employee is directed to perform a job or duties not included in his regular job description in excess of one hour, that employee shall be paid at the rate for the job performed for all such hours worked. Temporary pay rates may preclude management from effectively using staff resources based upon need. The temporary payment provision has the potential to decrease departmental efficiency by either augmenting departmental operating expenditures or conversely, diminishing the services provided if management determines that the position can remain unfilled during any absence.

R2.11 If step schedules are assigned to job descriptions, employees are entitled to the salary amount associated with the duties they perform. However, temporary pay rates are not a cost-effective compensation mechanism when employees are entitled to increased wages for as little as one hour of work beyond the job description. The City should collaborate with the unions and negotiate a revision in the clause to stipulate a reasonable amount of time before an employee would receive a higher pay rate.

F2.24 Wastewater and street department employees who are members of the United Steelworkers' and Teamsters' bargaining units respectively receive a minimum of four hours at the applicable overtime rate when called out to work at a time when they are not scheduled. Consequently, if a wastewater employee is called out to replace a manhole cover and the job is completed in fifteen minutes (replacement in addition to drive time to the site), that employee will receive four hours of pay at time and one-half his rate. Wastewater personnel indicated that in the wastewater division alone, instances of call-out numbered approximately 360 for 1998

R2.12 Four hours for call-out payment is generous and differs from the other contracts within the City, as well as peer city agreements. This provision has been very costly to the wastewater department as evidenced in the significant amount of overtime costs incurred by the department in 1998 (see **Table 2-6**). At $263,036, the department's overtime costs were higher than any other department's costs in the City excluding the police department. Consequently, management should collaborate with the United Steelworkers' and the Teamsters' to create alternatives to the current policy. One option may be to limit the minimum four hours "call-out" payments to two hours and require employees to complete at least two hours of labor once called out. Another option may be to reduce the time and a half rate to straight time for the purposes of "call-out" payments (see the **Wastewater** and **Street Department** sections for further implications of this recommendation).

Financial Implications: Assuming the average overtime hourly rate in the wastewater department is $23.40, reducing the four hours to two hours would save the City approximately $16,848. Changing the call out payments from time and a half to straight time can save the City approximately $11,232 annually.

F2.25 Wastewater employees who are scheduled by management to be "on-call" are paid $80.33 weekly. Consequently, every employee who is on "standby" for an evening receives this weekly amount, even if no work is required for the week.

R2.13 Although the "on-call" pay conforms with the Fair Labor Standards Act (FLSA) and absolves both the union and the City of any FLSA liability, this provision is not reflected in the remaining City bargaining units, or in the majority of the peer city agreements. Because employees are reimbursed even if no work is required, the City may benefit from discontinuing this provision with assistance from the Steelworkers' union during the upcoming round of negotiations.

Financial Implications: Should the City discontinue the practice of "on-call" payments to wastewater employees, it would realize an annual cost savings of approximately $8,344. Further explanation of the additional implications associated with this recommendation can be found in the **Wastewater** section of this report.

F2.26 Certain of the unions have negotiated a "meal ticket" policy in which $5.00 or more are provided to employees upon completion of two additional hours worked beyond the standard eight-hour day and for every four hours thereafter. Consequently, if an employee works a ten-hour day, he will earn his straight-time eight hours, plus time and one-half for the additional time, as well as one supplemental "meal ticket" for the two hours overtime worked. The "meal tickets", which are actually quarterly reimbursement checks, have no discernable relation to any meals eaten by employees. The City does not require any documentation of meals purchased.

R2.14 The "meal ticket" reimbursement benefit appears to be generous in that employees are already entitled to additional compensation for overtime hours worked. Overtime rates have been incorporated into the wage compensation structure to reward employees who have accepted additional duties. "Meal tickets" consequently serve only to supplement the established overtime rates. As indicated in **Table 2-11**, the City is dispensing between $22,000 and $31,000 annually on meal ticket reimbursements. The City should consider eliminating this duplication of overtime compensation. If the option of eliminating the "meal tickets" is unfeasible at this time, the City could renegotiate the policy to provide "meal tickets" only after the first four hours and require employees to submit receipts for all meals purchased.

Table 2-11: 1996-98 Meal Ticket Reimbursement Amounts

	1996	1997	1998
Teamsters' Union-Street Department	$8,305	$10,220	$5,570
Steelworkers' Union-Wastewater Department	$8,181	$9,161	$9,643
AFSCME 2726 Union-Water Department	$12,537	$11,590	$6,743
Total	**$29,023**	**$30,971**	**$21,956**

Source: City of Youngstown expenditure reports

Financial Implications: If management and the bargaining units agree to discontinue the meal ticket practice to increase the efficiency of the City's operations, the City could realize a savings of approximately $22,000 to $31,000 annually.

F2.27 Employees receive longevity reimbursement after two years of service. The average payment for FY 1998 was $42.44 for each year of service with the City. Consequently, an employee with ten years of continuous service with the City of Youngstown would receive a $424.40 addition to his base pay. While longevity payments are considered standard practice in municipal governments, two years is the shortest period of time to commence longevity accrual of all the peer cities.

R2.15 The City should consider requiring four years of employment before being eligible for longevity payments, which is consistent with the peer cities. By restructuring the system, the City reduces longevity payments associated with the third and fourth year of service.

Financial Implications: Renegotiating the longevity system would save the City approximately $45,496 annually.

F2.28 The City's agreement with the Teamsters' bargaining unit (street department) describes a seven step progressive discipline clause that begins with a verbal warning, proceeds to a written reprimand, with ensuing one, three, seven, and thirty day suspensions, and culminates in termination.

R2.16 An overly lenient disciplinary process has the potential to restrict management's ability to effectively direct the City's workforce. A seven step disciplinary process can allow ineffective employees to remain with the City long after they have reasonably demonstrated an inability to produce sufficient results. The remaining union contracts in the City of Youngstown, along with Canton, all remain silent on the issue of progressive discipline (although Canton

stipulates that management can discipline, suspend, or discharge employees only with just and proper cause).

The City of Lorain has implemented a four step disciplinary procedure that includes a first verbal or written reprimand, a second verbal or written reprimand, a disciplinary layoff, and finally a discharge from service. While the City would benefit from a removal of the street department's progressive disciplinary process, this may be unfeasible during negotiations. Consequently, management should collaborate with the Teamsters' union to revise the disciplinary procedure similar to the Lorain model. Included in the new disciplinary procedure should be an adequate method of documentation for each step in the process to ensure that even verbal reprimands are being registered.

F2.29 The bargaining units in the City of Youngstown have each established a grievance procedure which stipulates that grievances must be filed within fourteen days of the occurrence. The amount of time to file a grievance is significantly greater than each of the peer cities. The City does not formally monitor the number of grievances filed, but estimated that a total of nineteen grievances were undertaken in 1998. At year-end, five of the nineteen were still pending (with two going to arbitration), five were settled in favor of the employee, and nine were denied or not brought forward by union leadership.

R2.17 The City could use the example of the peer cities to collaborate with the unions in restructuring the grievance time limit to the more standard three days. Establishing a maximum of three days to file grievances precludes duplicate grievances from being filed as a result of an unresolved issue. Filing written grievances sooner should initiate prompt responses from all parties which can lead to more timely resolutions. Furthermore, the City should create a procedure to track and monitor all grievances filed with the City. This monitoring can be used to identify problems with the responsiveness of management/ departments at each step of the grievance process as well as identifying any other problems which may arise.

F2.30 Certain of the unions have negotiated with the City a wage compensation package that freezes wage increases but in return, provides for the employee portion of employee pension plan. While the City has made the water department employees' pension contribution for more than twelve years now, management and the remaining unions aside from the Steelworkers' will all receive full pension pick-up by the end of the three-year contract cycle of 1998-2000. The units agreed to wage freezes in 1998 and 2000 while the City agreed to pick up the first 4.25 percent of the employee pension contribution in 1998 and will incur the entire employee contribution of 8.5 percent by 2000. The union agreement called for a standard four percent wage increase in 1999.

While this strategy may have been less costly to the City in the short-term, the ramifications of this clause may prove costly. The City will maintain the 8.5 percent employee pension contribution indefinitely, but future bargaining agreements may not consider these payments when negotiating. Additionally, as salaries increase, pensions will increase. Consequently, the cost effectiveness of the current wage freeze could be nullified within five to ten years.

R2.18 Should future financial situations warrant further budgetary sacrifices, the City could collaborate with the unions to reduce the burden of the full employee pension plan contribution to bring compensatory levels into line with the remaining peer districts.

B. Benefits Administration

Background

The objectives of the benefits administration analysis for the City of Youngstown will be met through the use of the following methods:

- Detailed break-out of healthcare benefits including type of coverage, associated premium costs, number of employees per plan, employee contribution, etc.
- Life insurance benefits
- Non-use of hospitalization incentive
- Amount of payment in lieu of healthcare benefits
- Cost analysis of the retired employee life insurance contribution.
- Documentation of rate differences between Teamsters' and Steelworkers' payment in lieu of medical benefits and AFSCME payment in lieu

Performance Measures

Following is a list of performance measures that were applied to the bargaining unit agreements:

- Assessment of employee benefit costs
- Assessment of employee benefit administration
- Assessment of employee benefits as related to contractual issues
- Analysis of employee benefit package as compared to peer cities

Findings/Commendations/Recommendations

F2.31 The City provides hospitalization benefits for all City employees. Clerical and water department employees are provided supplemental dental and vision benefits through the AFSCME care plan. The City contracts with Medical Mutual of Ohio for its hospitalization benefits offering two plans; a Preferred Provider Organization (PPO) which gives employees a choice of physicians from a pre-approved list, and a traditional plan, which affords employees greater flexibility when choosing a physician. The City renewed its benefits contracts in January 1999 for three years which guarantees no premium increases for the first two years and cannot be increased by more than 15 percent in the final year of the contract.

As indicated in **Table 2-12**, when prescription costs are included with the monthly PPO costs, the combined premium appears to be greater than the traditional plan premium. However, the prescription rider costs the City $73.08 of which employees are required to contribute 50 percent or $36.54 monthly. Because employees using this option are required to contribute $36.54 monthly, the City's net contribution of the PPO plan is $405.36.

Table 2-12: Health Care Costs Comparison

City	Providers	Monthly Premium for Single Plan	Full-Time Emp Share	Monthly Premium for Family Plan	Full-Time Emp Share	Number Enrolled: Single/ Family	Self Insured
Youngstown	Medical Mutual of Ohio- Single Med Select[1]	$441.90	None	$441.90	None	73/216	No
	Traditional[2]	$415.99	None	$415.99	None	127/350	No
Canton	Klais & Co[3]	$300.00	None	$300.00	None	128/496	Yes
	Aultcare[3]	$300.00	None	$300.00	None	98/356	Yes
Lorain	Super Med Plus- PPO[4]	$129.83	None	$341.54	None	111/386	Yes
	Traditional[5]	$195.98	None	$516.37	None	12/80	Yes
Springfield	Anthem Blue Cross/ Blue Shield[6]	$145.86	$10.10	$365.00	$30.25	119/474	No

Source: Peer Cities' insurance information charts

[1] Includes $73.08 prescription rider which requires a $36.54 monthly employee share. All employees are eligible for prescription plan, however currently only 135 total employees take advantage of the plan

[2] Traditional plan includes prescription benefits

[3] Includes $50.00 Caremark prescription rider which does not require employee contributions. All employees except for AFSCME union members are eligible for prescription benefits. Currently, 603 total employees are enrolled in the prescription plan

[4] Rates for benefits do not include fire fighters. Rates include $28.01 for single and $70.03 family PCS prescription rider which do not require employee contributions

[5] Includes only firefighters. Rates include $37.60 for single and $94.00 family PCS prescription rider which do not require employee contributions

[6] Hospitalization costs include prescription benefits

F2.32 While each of the peer cities provides employee hospitalization insurance to varying degrees, differences in auxiliary benefits remain. Prior to March 1998, the City of Youngstown did not provide dental and vision benefits to any employees. AFSCME members at the City are provided dental and vision benefit options through the AFSCME care plan at a cost of $60 per month. Of the three peer cities, only Canton provided employees with dental and vision benefits. Effective March 1998, the City of Youngstown provided dental and vision benefits to the street department. Street department employees electing dental and vision benefits are required to contribute $20 per month for both single and family plans.

Effective January 1, 1999, dental and vision benefits were provided to police and fire at no cost to those employees. Wastewater employees and 911 dispatchers began receiving dental and vision benefits April 1, 1999. Wastewater and 911 employees electing family coverage are required to pay $20 per month, while employees electing to receive single coverage are not required to contribute to the monthly premium. Because this program has just recently been implemented, no financial information is available for review.

F2.33 As indicated above, the City of Youngstown pays a portion of employees' contribution to the AFSCME Health and Welfare Plan. At year end 1998, 205 AFSCME members opted for coverage from the plan at a total cost of $50,204 for the year.

F2.34 **Table 2-13** illustrates the total costs of all insurance benefits for 1998. Youngstown has an annual benefits cost per employee of $5,770 which is the highest when compared to the peer cities and is higher than the annual cost of health care of $5,376 per covered employee in 1998 as estimated in the SERB report (see **F2.35**). Factors contributing to Youngstown's high annual insurance cost per employee include the following: the City offers a costly traditional plan, full-time employees are not required to contribute towards the monthly medical premiums, zero annual deductible for the PPO plan and lower out-of-pocket maximum amounts for the traditional plan.

Table 2-13: Total Cost of All Insurance 1998

City	Health Care Costs	Dental Costs	Prescription Costs	Vision Costs	Life Insurance Costs	Total Costs	Annual Cost per Employee[7]
Youngstown[1]	$3,736,811	$15,619 [2]	$61,869	n/a	$100,821	$3,915,120	$5,770 [3]
Canton	$3,900,018	$224,100	$487,724	$50,250	$60,384	$4,722,476	$4,882
Lorain	$1,504,462	n/a	$448,106	$55,541	$66,227	$2,074,336	$3,409
Springfield[4]	$2,059,335	n/a	[4]	n/a	$41,390	$2,100,725	$3,473
Peer Average[5]	**$2,800,157**	**n/a [6]**	**$332,566**	**$52,896**	**$67,206**	**$3,203,164**	**$4,384**

Source: Peer City Benefits Charts

[1] Youngstown's traditional plan includes prescription benefits

[2] Benefits were provided to street department employees only.

[3] In 1999, Youngstown began offering dental and vision benefits to all other employees. Therefore, the City's annual cost per employee will be higher in future years.

[4] Springfield's healthcare costs include prescription benefits

[5] Peer averages only include cities providing benefit

[6] Because Youngstown only provided dental benefits to street department employees, a peer average was not calculated.

[7] Does not include life insurance

F2.35 A report on the *Cost of Health Insurance in Ohio's Public Sector* was completed by SERB. Based on the 1998 study, approximately 60 percent of the responding employers required their employees to pay a proportion of the cost of a family premium. Forty-six percent required their employees to share the cost for the single plan. The average monthly employee contribution is $21.44 for single and $61.72 for family. These rates amount to 11.7 percent of the cost of a single plan and 13.1 percent of the monthly family premium. Other findings from the study include the following:

- **!** Estimated cost of medical and other health care benefits will average $5,376 per covered employee in 1998.
- **!** Monthly medical insurance premiums currently average $184.09 for single coverage and $469.17 for a family plan.
- **!** Average total monthly cost of employee health care benefits stands at $223.92 and $536.43 for single and family coverage, respectively.
- **!** Approximately 87 percent of public employers offer some level of dental coverage, 50 percent provide a vision plan and 93 percent offer life insurance.
- **!** Dental coverage costs an average of $26.59 a month for single and $47.16 a month for family. The cost of optical insurance averages $7.40 for single and $13.03 for family coverage.
- **!** Twenty-nine percent of employers offer insurance coverage through an HMO. Forty-three percent contract at least some health services through a provider network.

F2.36 Certain benefits affect the overall cost of medical plans. **Table 2-14** compares some key benefits which are considered when evaluating the ratio of benefits to cost in conjunction with choosing a medical plan.

Table 2-14: Key Medical Plan Benefits

	Youngstown **Medical Mutual of Ohio- PPO Traditional**	**Canton** **Klais and Co. Aultcare**	**Lorain** **Medical Mutual of Ohio- PPO Traditional**	**Springfield** **Anthem Blue Cross/Blue Shield**
Office Visits	$0 80/20	80/20	$10 deductible and co-pay	$10
Employee Annual Deductible	$0 $100 single/ $300 family	$50 single/ $100 family	$0 $100 single/ $200 family	In-network- $0 Out-of-network- $300 single/ $600 family

	Youngstown **Medical Mutual of Ohio- PPO Traditional**	**Canton** **Klais and Co. Aultcare**	**Lorain** **Medical Mutual of Ohio- PPO Traditional**	**Springfield** **Anthem Blue Cross/Blue Shield**
Employee Out of Pocket maximum	$0 $280 single/ $840 family	$2,000 single and family	$0 $1,100 single/ $2,200 family (excludes benefit period deductible)	In-network- $0 Out-of-network- $700 single/ $1,400 family
Prescription Plan Included	No Yes	Yes for non-AFSCME employees	Yes Yes	Yes- $5 co-pay generic, $12 co-pay
Need to Choose Primary Physician	Yes No	No	Yes No	No
Maternity	100% coverage Yes- deductible and co-pay	100% coverage	100% coverage Yes- after $10 office visit	100% coverage
Well Child Care	100% coverage 1st year coverage w/ deductible and co-pay	0-2 80% coverage 2-9 $150 max/yr.	$500/ year to age 9 $500 up to one year of age, $150/ year up to age 9	No annual max, $10 office visit
Inpatient Hospital Care	No deductible or co-pay Contributes to deductible and co-pay	100% coverage max 730 days	100% coverage Contingent upon deductibles and co-pay	100% coverage
Out Patient Care	No deductible or co-pay Contributes to deductible and co-pay	100% emergency 80% non-emergency	100% coverage Contingent upon deductibles and co-pay	100% coverage

F2.37 The City of Youngstown provides a hospitalization benefits waiver to employees who opt out of the medical plan and can provide proof of other insurance. For the Teamsters' and Steelworkers' members, this incentive results in $1,514 annually for receiving benefits

through another provider. For the AFSCME 2627 bargaining unit, this incentive results in a $1,200 bonus for employees. None of the remaining peer cities provides this benefit to employees.

C2.2 By implementing a hospitalization benefits waiver, the City of Youngstown was able to save approximately $219,000 in hospitalization costs for 1998. In addition, requiring proof of other insurance is in the best interest of the employees' well-being which can have a positive impact on the amount of sick and personal leave taken and potentially reduce workers' compensation benefits.

F2.38 The PPO medical benefits option provided by the City is $368.82 per month per employee (single and family premiums are the same as a result of the provider's contract with the City), while the traditional plan costs the City $415.99 per month per employee. However, the traditional plan includes prescription benefits in the premium while the PPO plan attaches a prescription rider to the plan at a premium cost of $73.08 per month. Employees who elect to receive the prescription rider are required to contribute $36.54 to the premium per month. The benefits coordinator indicated that most of the eligible employees do not pursue the prescription rider. As reflected in **Table 2-14**, the majority of services available in the PPO plan provided 100 percent coverage with no employee co-pays.

R2.19 The City needs to address its high insurance cost per employee shown in **Table 2-13**. The City could gain by restructuring the benefits package to provide for a greater cost sharing between the City and employees. This can be accomplished through a number of methods. During the next round of negotiations, the City should work with the provider to establish co-pay amounts, deductibles for the PPO plan, higher deductibles for the traditional plan and out-of-pocket maximums which would have the effect of reducing monthly premiums.

It is essential for the City to provide sufficient incentives to encourage employees to use the PPO physicians and hospitals. One such incentive would be to re-design the current PPO to include the prescription rider in the premium. The City should determine the cost effectiveness of establishing prescription benefits in the PPO.

The City should review the current deductible levels and may want to consider adjusting those levels to an acceptable level in an effort to control costs. The deductible is that portion of covered hospital and medical charges which an insured person must pay before the policy's benefits begin. Deductibles are important to controlling benefits costs because they eliminate the small medical bills which are relatively expensive to maintain, consequently eliminating these small bills holds down the cost of administration and makes the plan more financially stable.

The annual out-of-pocket maximum is the amount the employee is obligated to pay for health care in any plan year, after which the plan pays 100 percent of any additional covered costs for the year. According to the *Healthcare Handbook*, the trend is to increase this annual out-of-pocket maximum limit. The City should consider adjusting the out-of-pocket maximum to a level more comparable with the peer cities which could impact the costs associated with the premiums.

Coinsurance, or co-pays, can mean either the percentage of covered charges that a plan will reimburse an employee or the percentage of covered charges that must be paid by the plan participant. The purpose of coinsurance is to help control the employer's costs by shifting some of the cost to employees. According to the *Healthcare Handbook*, "Sponsors hope that since employees are paying a share of the bill, they will be more interested and concerned about both the utilization of health care services and the level of the charges."

F2.39 In addition to providing the majority of PPO services at 100 percent and minimal employee deductibles and out-of-pocket maximums, the City of Youngstown does not require benefit contributions from employees for medical benefits. Many governmental entities require employee contributions to premium amounts.

R2.20 The City could significantly benefit from implementing employee contributions, which are subject to union agreement. Consequently, the City should engage the bargaining units in discussions to enable the parties to jointly determine a suitable contribution amount or restructure deductibles, out-of-pocket maximums and co-pays (see **R2.19**). **Table 2-16** illustrates potential savings associated with such contributions.

Table 2-16: Annual Savings Resulting from Increased Employee Contributions for Medical Insurance

Hospitalization/ Medical Benefits	Annual Savings Calculated at		
	10%	15%	20%
PPO Plan	$127,907	$191,860	$255,814
Traditional Plan	$238,113	$357,169	$476,225
Total Annual Savings	**$366,020**	**$549,029**	**$732,039**

Financial Implications: Standardizing monthly premium contributions to ten percent for all employees as shown in the above table would save the City approximately $366,000 annually in insurance expenditures. Increasing the employees' contribution to the monthly premium to 15 percent would save the City approximately$549,000 in premium costs. Increasing the monthly premium contribution to 20 percent would save the City approximately $732,000 in health insurance costs.

F2.40 Although Youngstown employs a consultant to procure the most practical benefits package, the City itself remains relatively uninvolved in the selection process. There is presently no process by which the City can review or analyze benefit quotes, options or service levels. The City relies solely on the consultant for all fringe benefits-based decisions. The City has indicated that the acting risk manager reviews the quotes submitted in response to the bid specification prepared by the consultant, reviews the consultant's conclusions and ultimately makes a recommendation to the board of control about what health care provider to use. In addition, the acting risk manager is provided with claims reports on a quarterly basis by the provider and meets with the representatives of the provider to review claims and trends.

R2.21 The City should become more involved in its benefit administration. This could be achieved by creating an Insurance Committee, or a Benefits Review Forum (BRF). A BRF could be a vehicle for implementing a number of cost containment approaches, including limiting hospital stays, redirecting employees toward equally beneficial but less expensive forms of treatment, reviewing all services, fees and invoices, and assisting employees in becoming better consumers of services through education and cost sharing. In the future, a well-organized BRF could design the requests for proposals for all medical insurance thereby reducing the reliance upon an outside consultant.

A successful BRF could be an effective vehicle for addressing the City's health care issues by requesting periodic comparative information from the health care plan administrator and through surveys of other jurisdictions in order to determine possible cost containment strategies. The information should include:

- Complete description of health plans offered
- Complete description of ancillary benefits offered, such as dental and prescription drugs
- Enrollment in each plan, including PPO's, showing the number of employees with family and single coverage
- Last year, current year, and projected monthly rates with comparisons to the rates of other jurisdictions
- Employer and employee contribution to each plan and method of determination (percentage of cost or flat dollar)
- Financing information on each plan
- Experience statements
- Information on any cost containment efforts to date and any identified cost savings
- Utilization data on each plan (including inpatient, outpatient, professional, major medical and prescription drugs)
- Employer practice for continuing coverage to retirees
- Copies of any consultants' reports
- Labor or management proposals

F2.41 Patrick McMahon, in his article for the American Management Association entitled "Health Care Cost Containment: A Labor-Management Issue," observes that labor and management must work together to meet the challenge of escalating health care costs. Labor and management must be active partners in the formation of new health plans and strategies. The author recommends using a third-party facilitator as a strategy for health care cost containment. McMahon explains that at least 90 percent of the changes necessary for health care cost containment can be made outside the collective bargaining agreement where labor and management come together, compare lists and begin the process of building trust and cooperation. Steering committees become the guiding force of the labor-management cooperative process. The City does not take advantage of the benefits associated with using a labor-management committee.

R2.22 The City should establish a labor-management committee which could benefit the City based upon **F2.41** as well as increasing communication between labor and management.

C. Workers' Compensation

Background

This section focuses on the City's regulation of its workers' compensation program. The Bureau of Workers' Compensation (BWC) is the administrative branch of Ohio's workers' compensation system which provides medical and wage-loss compensation for injured workers or their families for work-related injuries, diseases or death. The City is responsible for subsidizing the workers' compensation system in return for the BWC's management of claims, payment of compensation and underwriting of all workers' compensation coverage.

The amounts of these subsidies, in the form of premiums, are driven by a number of factors including the total number of claims (both medical only claims, and the higher cost lost-time claims), type of BWC program in which the entity is enrolled and the experience modification figure which is used to tailor the cost of workers' compensation to the actual loss experience of the individual employer.

As one of the most significant factors in determining premium levels, the experience modification factor compares the losses and safety results of the City to other similarly classified cities in the state of Ohio. Fewer accidents and losses than average will result in a modification factor lower than 1.00 and a reduction in the premium. Likewise, more accidents and losses will result in a higher premium. The BWC notes that experience rating is not a penalty-reward system, but a tool used to more accurately predict future losses for an individual employer. Youngstown's current experience modification factor stands at 2.61.

The City of Youngstown uses one claims administrator who is responsible for general claims management, one in-house attorney for the purpose of claims litigation and one part-time consultant retained by the City for the express purpose of decreasing premium expenses. The consultant's $6,250/month contract is self-renewing (does not need to be re-introduced to City council) on a semi-annual basis, but can be discontinued thirty days prior to renewal. While Youngstown has previously employed a risk manager, the position was vacant until early 1999.

As a result of the BWC's statewide rebate program, the City received a $4,304,542 rebate refund from 1996 to 1997.

Performance Measures

The following is a list of performance measures used to review the workers' compensation administration in the City of Youngstown:

- Assessment of workers' compensation administration
- Assessment of workers' compensation costs
- Assessment of workers' compensation practices
- Assessment of handicapped reimbursement program
- Assessment of safety and training programs

Findings/Commendations/Recommendations

F2.42 The City of Youngstown has been substantially penalty rated since 1991, when it's experience modifier of 1.95 was equal to the state's legislatively mandated cap. In 1992, the cap was raised to 2.50, with Youngstown exhibiting the same increase. Once the cap was lifted, Youngstown's experience modifier climbed above 3.00, where it stayed from 1993-95. This drastic increase can be attributed to the fact that the City had not made the effort to control workers' compensation claims because it could count on an experience modifier cap. In the years since, the experience modifier has been reduced somewhat by the City's participation in the Premium Discount Program. However, the City has spent over $13,000,000 in penalty premiums since 1993.

Since 1994, the City has significantly reduced the number of lost time claims incurred. Lost time claims have the greatest potential to increase the experience modifier, and subsequent premium costs because of the potential for extended absence from work, as well as steep medical bills. Although medical only claims have increased sharply over the past four years, this may be indicative of the City's efforts to control workers' compensation lost time claims.

As illustrated in **Table 2-17**, the total premium costs from 1995 to 1998 decreased by more than $1.6 million over the four-year period. The premium costs as a percentage of the total payroll have decreased by 5.9 percentage points over the four-year trend period. Furthermore, while the total payroll remained relatively constant over the four-year period, the total premium costs decreased by approximately 40 percent. This decrease can be attributed to a shrinking experience modifier as a result of steps taken by the City to reduce workers' compensation costs, including the City's participation in the ten step business program which resulted in premium discounts of ten and five percent.

Table 2-17: Recent Workers' Compensation Claims History

Year	Number of Medical Claims Allowed	Number of Lost Time Claims	Total Payroll	Experience Premium Costs	Premium Costs as a % of Total Payroll	Experience Modifier
1995	64	66	$29,289,190	$4,292,536	14.66%	3.04
1996	71	52	$28,878,397	$3,443,633	11.92%	2.96
1997	76	35	$29,004,014	$2,986,369	10.30%	2.68
1998	102	18	$30,520,030	$2,674,226	8.76%	2.61

Source: Bureau of Workers' Compensation

F2.43 **Table 2-18** illustrates the workers' compensation statistics provided by the BWC for each of the peer cities. Youngstown's experience modifier and premium costs were significantly greater than the remaining peer cities. Youngstown exhibited the most medical claims allowed and was equal to two peer cities in the number of lost time claims allowed. However, aside from Canton, the City of Youngstown exhibited the lowest total number of claims per 100 employees. Although the number of lost time claims is decreasing, the City's experience modifier is still greatly impacted by the high number of claims incurred during the last four years.

Table 2-18: 1998 Workers' Compensation Peer City Comparison

	Number of Medical Claims Allowed	Number of Lost Time Claims	Total Number of Claims/ 100 Employees	Total Payroll	Total Premium Costs	Premium Costs as a % of Total Payroll	Experience Modifier
Youngstown	102	18	14.5	$30,520,030	$2,674,226	8.76%	2.61
Canton [2]	83	18	9.3	$38,099,926	$445,769	1.17%	0.86
Lorain	92	15	18.9	$23,848,334	$704,003	2.95%	0.77
Springfield [2]	83	18	14.6	$27,053,350	$225,977	0.84%	0.61
Peer Average	90	17	14.3	$29,880,410	$458,583 [1]	1.65% [1]	1.21

Source: Bureau of Workers' Compensation

[1] Peer average does not include Youngstown

[2] The City's participation in the BWC's retrospective rating plan might affect certain comparisons.

F2.44 Because of the City's recent poor history of workers' compensation claims management, Youngstown has been experienced rated for a number of years. Experience rating is mandatory for all Ohio private and public employers expected to experience $8,000 or more in losses during a four-year period. All entities with higher claims costs are grouped in the

same category and share premium expenses. In the experience rating system, employers with better than average loss experience (credit rating) pay a reduced premium and employers with worse than average loss experience (penalty rating) pay an additional premium. As indicated in **F3.44**, the limit on the maximum penalty modification was lifted in 1993.

R2.23 The City must aggressively pursue options available to improve the management of its workers' compensation program and reduce costs. While the City has made progress in its attempt to control its workers' compensation costs in recent years, **Table 2-18**, indicates the City's total premium costs are significantly higher than the peer cities. Youngstown's total premium costs of $2.7 million are approximately 3.8 times higher than Lorain's, which also participates in the fully-insured workers' compensation program. In addition, the BWC established a base rate of $1.36 for every $100 of payroll expenditures for fully-insured cities in 1998. This means the BWC would expect the City's workers' compensation premiums for 1998 to have been approximately $415,000, instead of the actual $2.7 million.

Financial Implications: Through improving the management of its workers' compensation program, the City could realize annual costs savings of approximately $2.3 million by attaining the base rate established by the BWC. In addition, improving the management of the workers' compensation program could provide additional opportunities for cost savings available through the retrospective program offered by the BWC.

Premium Discount Program/Ten Step Business Plan

F2.45 For a number of reasons discussed in this section, the City of Youngstown's ability to control spiraling workers' compensation expenditures has been severely limited. The City was unable to join a group rating plan due to its already significant experience modifier, and subsequent premium responsibilities. The City was also unable to participate in the retrospective rating program due to a lack of reserve funding. As a result, the City enrolled in the BWC's Premium Discount Program.

As previously indicated, the City is in the final year of the BWC's Premium Discount Program. Established in 1995, the Premium Discount Program is an incentive designed to assist penalty-rated employers create a safe and more effective workplace. Along with the City of Youngstown, approximately 4,000 participants are enrolled in the program which has saved the entities more than $60 million in premiums since its introduction.

As an incentive to implement the Premium Discount Program, the City of Youngstown received discounts of ten percent in its first and second years, and five percent in the final two years of the four-year program, on its blended premium rate (which includes the base rate plus administrative and Disabled Workers' Relief Fund assessments). The BWC reasons that by the third year, the employer's penalty modification should begin to improve, consequently

the cost of maintaining the program should be lower (hence the reduction in the percentage of the discount between the second and third years).

Participation in the program is contingent upon the following factors: the implementation of the BWC's ten step program, a penalty-rating status, not participating in either group or retrospective rating programs in the same policy year the premium discount is given, being current on all premium payments, and not having excessive lapses in policy coverage, all of which are true of the City of Youngstown. In order to receive the discount, the City must allow BWC access to their job sites to review and assist its progress with the program, submit an annual progress report to the BWC which documents their progress in implementing and maintaining the program by September 30 and complete the program within seven years.

F2.46 The City of Youngstown is entering the fourth and final year of the Premium Discount Program. BWC personnel indicated that while the City has been an active participant in the ten step plan, it was in danger of losing the discount as a result of consistently failing to implement a meaningful and effective training program, as well as failing to comply with numerous Bureau safety audits. Since discussions of a possible removal from the program were conducted between BWC personnel and the mayor, significant improvements have been made to the City's efforts to control workers' compensation.

C2.3 The mayor's increased role in controlling workers' compensation expenditures has been beneficial. The Safety Steering committee, which was once sparsely attended and of little value, has become a very visible forum for which to address workers' compensation issues. The mayor has made it a priority by attending all meetings, and actively seeking answers to the dilemmas facing the workers' compensation program in the City.

R2.24 Although Youngstown has made the necessary progress to remain compliant with the ten step business program, the City should follow through with the initial steps already completed. While some training programs have been conducted, a number of training programs are still in the implementation stage including a training program for combating chemical hazards, a safety manual program modeled on the sample manuals provided by the Bureau, and a defensive driving training course offered in the police department. The City would benefit from completing the above proposals in a timely manner.

F2.47 The City of Youngstown does not have a full-time risk manager. In the past, this position was a charter-mandated position, but has since been eradicated. The City has recently reassigned a portion of one of the City attorney's duties to the position of acting risk manager. Because the position is important for the administration of a successful workers' compensation program, the City has placed a high priority on its visibility. The risk manager is under the direction of the law department and is responsible for facilitating organizational safety systems and processes. Youngstown's risk manager does not assume operational

responsibility for safety and health, but supports line management, supervision and employees to develop effective safety systems and processes.

During the period when the City did not employ a risk manager, workers' compensation premiums increased dramatically. To combat this phenomenon, City management determined that a risk manager was necessary again. However, a full-time position was not created and the current acting risk manager must balance risk management with litigation of workers' compensation appeals, other litigation, and responsibility for a number of human resource issues, including the commercial driver's license drug testing program. The acting risk manager has been active in drafting and having all departments implement OSHA mandated safety programs, including the chemical hazards identification, blood borne pathogen program and lock out/tag out programs.

R2.25 To effectively control workers' compensation costs, accident prevention should be the highest priority. Although the City has created the position of risk manager, the position is not a full-time position. Because of the significant workers' compensation costs incurred by the City, the City should perform a cost-benefit analysis to determine if a full-time risk manager would be warranted. The analysis should consider if a full-time risk manager would enable the City to better manage and reduce workers' compensation premium costs. In addition, the analysis should factor in savings that could be achieved by creating a full-time risk manager position and relying less on an outside consultant. Duties of the risk manager include:

- Helping management and employees identify accident prevention and safety and health training needs through perception surveys, interviews, behavior sampling or other methods
- Assisting supervisors in making changes or developing strategies that improve the organization's safety systems and processes
- Identifying and communicating new safety and health requirements
- Compiling injury and illness-related records
- Tracking progress on safety and health-related projects
- Distributing biweekly payroll listings of disability leave taken and its cost to affected departments
- Providing claimants, departmental workers' compensation liaisons and timekeepers with copies of disability leave approval forms
- Establishing internal procedures to ensure centralized authority to approve or reject each district employee's use of disability leave
- Working with employees to optimize safe work practices
- Providing advice and support to these supervisors and managers regarding safety management responsibilities
- Designating departmental safety officers which meet on a monthly basis to discuss emerging safety concerns related to workers' compensation achieve immediate cost savings is to aggressively manage workplace safety

- **!** Providing the administrative capability sufficient to allow the City to reintroduce the traffic disciplinary committee.

Safety Issues

F2.48 The experience modifier is one of the most significant indicators of the financial burden of workers' compensation on the City. Consequently, management should be most concerned with reducing its experience modifier. Sources at the BWC indicate the single most effective method of controlling workers' compensation costs is to prevent claims from the outset. The experience modification system provides greater weight to the frequency of accidents than the actual dollar amounts those accidents may cost. The BWC states that "the frequency of accidents is a better predictor of losses than the costs of accidents." To control workers' compensation costs, it is imperative to control the number of claims filed by increasing safety and training in the workplace.

R2.26 The City should become more proactive in addressing safety issues in the work place. Monitoring employee health and safety is a valuable tool for claim prevention. Such monitoring has two components: claims trending and employee surveying. A claims trending program cross tabulates the number of accidents and lost work days per employee for various job locations. This type of analysis reveals patterns in types and causes of injuries and allows corrective action to be taken.

The City should use this information to direct those departments with a high number of workers' compensation claims to establish safety performance measures and targets and track performance against those targets. Furthermore, the City should require that annual evaluations of the department heads and managers be conducted and include a safety performance component for those departments with a high number of workers' compensation claims.

The employee survey component is equally important. An effective survey includes questions regarding employees' job descriptions and current health status. Surveying employees will reveal these complaints so that prevention through education can be initiated. All employees in a department are surveyed, not simply those who have been injured and have filed claims. These surveys also serve to illuminate any potential pre-existing conditions should an injury occur in the future, which is important in recovering handicapped reimbursement (see **F2.54** and **R2.30**).

F2.49 The City does not currently have a safety and training program in place. Successful workers' compensation programs have established close relationships with BWC business consultants to assist in accident prevention through orientation and training. Effective safety and health training must include hazard communication and specific job/task safe work practices and hazard recognition.

R2.27 Although the City has established a working relationship with the BWC business consultant in its region, it has not fully taken advantage of the range of services offered by the Bureau. All business consultant services are available upon request at no additional cost to the employer. Services provided by the business consultants include:

- Safety consultations
- Ergonomic analysis
- Industrial hygiene and engineering
- Resources for employers and employees- safety training, publications, a videotape library and a reference library

The BWC offers a wide range of safety and training programs for local government entities, free of charge, of which the City should take advantage. By implementing a successful monitoring system, as documented above, Youngstown can effectively meet the specific training needs of its employees with empirical evidence to support each course or program. Measuring program results against established safety program targets can further assist the City in determining the most efficient means of addressing safety and training needs.

Level and Effectiveness of Current Prevention Techniques

F2.50 To assist the City in limiting the liability associated with workers' compensation claims, and to directly address the above goals, the City of Youngstown has employed a consultant for the express purpose of decreasing workers' compensation premium expenditures. In March 1994, the City entered into a self-renewing contract with the John L. Ausnehmer Service Company of Youngstown, Ohio to provide the following types of services at the rate of $6,250 per month:

- Check every claim folder to determine up-to-date status
- Review all accident reports promptly with both the injured employee and responsible supervisor. Immediately commence an investigation to obtain facts pertaining to cause of accident and subsequent medical treatment. Follow up meetings to report findings to the law department, department supervisors, or whomever the City designates
- Determine if employee was injured due to his/her working in an unsafe manner and advise as to corrective actions
- Review and evaluate all new workers' compensation claim applications presented for verification as to validity and course of action. Respond to law department or whomever the City delegates.
- Confer with physicians when medical reports submitted for disability payments appear to be excessive or as deemed necessary by the law department
- Review all claim files of the Industrial Commission that are set for formal hearings

- **!** Prepare the City's position in defense of a claim, and appear at formal hearings to present the City's position at Industrial Commission offices

F2.51 The workers' compensation consultant hired by the City indicated that he spends twenty-five to thirty hours on workers' compensation duties weekly, and that those duties include his time in court settling claims, his meetings with the safety steering committee, attending formal BWC/OIC claims hearings, and the corresponding preparation for each of the above.

F2.52 While the consultant has sufficiently reviewed and evaluated claim applications, conferred with physicians when medical reports submitted for disability payments appear to be excessive, and been active in processing Industrial Commission hearings, City officials concur that a significant number of his required duties are not being performed. The acting risk manager believes that certain of the duties would be accomplished if the City had the resources, but some programs cannot be established due to a lack of funding.

The workers' compensation consultant has not developed systems for claim filing and accident reporting. He does not submit written plans to the law department for review and discussion, nor has he scheduled follow-up meetings to report findings to the law department, department supervisors, or employees. The consultant does not determine if employees were injured due to working in an unsafe manner, and has not advised as to corrective action. The workers' compensation consultant does not provide written documentation of his work, which has become very problematic for the current acting risk manager. Reports are never written about the methods by which the consultant is attempting to control workers' compensation costs. The risk manager has made numerous requests for documentation, but receives little in return.

R2.28 City officials should monitor the consultant's contractually-obligated responsibilities to ensure each is completed, as a number of responsibilities are not being completed. The City has been unable to determine the extent of the consultant's effectiveness because the consultant does not provide adequate reports on claims pending, claims settled, and other performance measures. Documentation of these duties would benefit each party by introducing evidentiary matter to support the financial merit of the City's workers' compensation consultant.

F2.53 Currently the City of Youngstown is paying approximately $75,000 annually for a workers' compensation consultant to manage the City's workers' compensation claims. The City of Springfield has established a similar relationship with Health Strategies Inc. to control workers' compensation premiums for only $20,000 annually. When compared to Youngstown's $75,000 annual contact, the City of Springfield realizes comparable services for a fraction of what Youngstown spends (27 percent).

R2.29 The City of Youngstown should seek requests for proposals from competing workers' compensation consulting firms to ensure that the City is paying the most economic and efficient service provider. As indicated in **F2.47**, if the risk manager assumed greater responsibilities and accident prevention is made a high priority, the City may be able to reduce reliance on a workers' compensation consultant. However, should the City continue its relationship with a workers' compensation consultant until it has controlled costs and developed staff with sufficient expertise in-house, the following duties should be assumed between the consultant and the City:

- **!** Carefully review the accident facts and injuries listed on the claim application
- **!** If emergency room records are involved, verify that the diagnosis matches the injuries listed on the application. Those records should be forwarded with any disability application
- **!** The City should review prior employment records for prior similar injury and total number of injuries to date. To accomplish this, the City must establish a hiring process whereby each department head is required to obtain prior employment records of potential employees.
- **!** The City should communicate with the attending physician on reasonable expectations for return to work or the possibilities for modified duty work
- **!** The City should maintain contact with the injured employee as well as the BWC claims representative
- **!** The City should review and evaluate all BWC lost-time and medical explanations of benefit reports

Each of these steps should fall under the responsibility of the workers' compensation consultant who does not currently engage in the above steps unless the claim is sent to appeal. As a result of either a City-requested appeal or a claimant-requested appeal, the workers' compensation consultant reviews all pertinent claim history. However, as a preventative technique, none of the steps above are completed.

F2.54 Based upon information provided by the BWC Experience Exhibit, the consultant has recovered over two million dollars in Handicapped Reimbursement for the City of Youngstown. Handicapped reimbursement allows employers to benefit as portions of claims' cost resulting from one of 32 established pre-existing handicaps are charged to the BWC's surplus fund, not to the employer's experience. If an employee's pre-existing handicap contributes to work-related disability, disease or death, or if an employee's work-related accident aggravates the pre-existing handicap, and can be substantiated by medical evidence, employers qualify for the handicapped reimbursement savings.

R2.30 While Youngstown has been pro-active in recovering handicapped reimbursement from the BWC, it should develop records which document all pre-existing conditions as employees are hired by the City. Active involvement in workers' compensation claims from the City is necessary to facilitate any handicapped reimbursement. Youngstown should annually file an inventory of handicapped employees with the BWC and when the City becomes aware that a handicapped employee is injured and the handicap is impacting the cost of the claim, file an Application for Handicapped Reimbursement (CHP-4A) immediately. The City has indicated that employees and union representatives have resisted its attempts in the past to obtain such information.

F2.55 The City of Youngstown's return to work program has not been adequately maintained and monitored. The National Council on Compensation Insurance (NCCI) has reported that of the nearly 600,000 employees who are disabled annually, 50 percent do not return to work. Frequently, this translates into long-term outlays in benefit payments, as well as losses in productivity and costs incurred to train adequate replacements.

As a result, many employers are implementing a return to work program in which injured employees are encouraged to accept light duty work at the work site as an alternative to lost time claims. A proactive modified duty program may allow many potential lost time claims to become "medical only" claims, thereby significantly decreasing the experience modifier. Benefits of a return to work, or modified duty program include:

- Reduced workers' compensation costs
- Faster recoveries of employees in appropriate light duty jobs
- Physicians accelerating employees' return to work when they are aware that the entity offers such programs
- Net gains for the City through the productive work of employees who otherwise would have been off duty

R2.31 The City should re-design the modified duty program to allow injured employees to return to work to perform less strenuous tasks rather than remaining on off-site disability leave. Effective modified duty programs have several elements in common. The most important element of any return to work program is management's vocal endorsement of the program. Employees must understand that abuse of disability leave will be met with discipline and that light duty programs exist to allow employees to continue working in some capaCity.

Several other aspects of effective modified duty programs include intra-organizational coordination and communication, adequate and timely information about disability leave usage and modified duty opportunities, and employee cooperation. Coordination and communication is necessary to effectuate a successful modified duty program because if an employee's regular job within a division cannot be modified, the search for a modified job

should be broadened to the whole department or other departments if necessary. Therefore, it would benefit Youngstown to establish a City-wide modified duty placement mechanism to accommodate those employees whose departments cannot comply with the employee's work restrictions.

Finally, if employees are not convinced of the value of returning to work part-time or in modified duties, the program will ultimately fail. Promoting the program can be achieved through early contact with injured employees to explain the options available to them. A full understanding of a modified duty program individually tailored to each employee can significantly increase injured employees' placement in such return to work programs.

In addition to employees understanding of the program, the City should make attendant physicians fully aware of the methods and benefits of a return to work program as physicians are often hesitant to release employees back to work. Traditionally, physicians have not been in the position to recommend modified duties for patients because they have been unaware such options existed.

The City should create a modified duty form letter which requires physicians to be more specific regarding work restrictions and provide those restrictions to employee supervisors. Because the workers' compensation consultant is responsible for reviewing all active claims, he has the ability to monitor any return to work possibilities and should be proactive in establishing modified duty programs for all claimants who qualify.

Claims Management and Other Strategic Initiatives

F2.56 National insurance studies demonstrate substantial savings result from early reporting of injuries. The Kemper National Insurance Co. surveyed 69,134 lost-time claims closed in 1994 and found that delays can increase claims costs by more than 50 percent. In the Kemper study, the average cost of claims reported within 10 days was $13,142 compared to $18,986 for those reported between 21 and 30 days, and $20,167 after 30 days. A related study by Johnson and Higgins' Workers' Compensation Quality Council found that the average lost-time case costs 58 percent less if it is reported within seven days than if it is reported within 16 to 21 days.

In a concurring analysis, ITT Hartford Insurance Group found conclusive evidence that the longer employees take to report a claim, the longer it will take to settle. The longer it takes to report a workers' compensation claim, the less control the City has over its ultimate settlement. In the Hartford study, claims that were reported within ten days averaged 381 days to settle. If reported between 21 and 30 days, settlement time jumped to 444 days. When claims were reported beyond 30 days after the accident, the average settlement time was 567 days representing an increase of 49 percent.

R2.32 The City should emphasize an aggressive claim closure strategy. Resolving and closing medical only claims as quickly as possible can reduce claims costs and resultant case loads. An effective system for claims closure should include the City making initial contact with an employee within 48 hours of the filing of a claim and track performance against this goal.

F2.57 All administration of the workers' compensation program is completed manually. As claims are reported, the workers' compensation administrator tracks claims and claims numbers plus the date of injury, but currently the administrator cannot keep track of payment of temporary total benefits and percentage of permanent partial disability payments. Furthermore, the status and length of temporary total disability benefits is not monitored which allows the administrator to update return to work dates to determine maximum medical improvement dates. The City is not monitoring medical treatment status to determine if treatment is overly conservative or unnecessary surgery is scheduled to be performed.

The City does not currently track the running total of medical costs paid on claims and the corresponding vendor listing or care giver. Comparisons cannot be generated for types of injuries, loss assessments or total dollar amounts between departments with current City workers' compensation procedures.

R2.33 When awarding a contract to a workers' compensation consultant, the City should consider whether the consultant utilizes a workers' compensation technology system which allows the administrator to access an employee database to import the information directly into the system. The tracking and monitoring illustrated above could be completed with a number of workers' compensation systems available. In addition, the system should significantly aid the City in completing the OSHA logs, financial/cost tracking, claim status tracking, loss/run reports, audit reports, as well as various organizational assistance. This information helps to determine the results of the services provided by the consultant. A number of the advantages of a workers' compensation system are documented below:

- Elimination of data entry duplication
- Reduction in the number of errors in the first report
- Timely and accurate claim reporting
- Documentation of numerous analysis and claims management reporting
- OSHA log reporting
- Internet reporting capability

F2.58 Pursuant to the Occupational Safety and Health Act of 1970, and its corresponding ORC section (4167.11), each public employer shall maintain for each establishment a log and summary of all recordable occupational injuries and illnesses (for the purposes of this section heretofore referred to as Occupational Safety and Health Administration [OSHA] logs). To remain in compliance with part 1904 of Title 29 in the Code of Federal Regulations, as well as ORC section 4167.11, each recordable injury and illness must be entered on the log and

summary as early as practical, but not later than six working days after receiving information that a recordable injury or illness has occurred. Additionally, the code section requires employers to make copies of these logs available which separately reflect injury and illness experience and are kept complete and current on a quarterly basis.

R2.34 Currently the City is not in compliance with ORC section 4167.11. To meet these standards, the City should take advantage of the OSHA Injury and Illness Prevention Program for Workplace Security which can be obtained through OSHA free of charge.

F2.59 The BWC offers a retrospective rating plan which allows employers to initially pay lower premiums than they would without the plan. An employer participating in the retrospective rating plan may earn this premium reduction as a result of assuming a portion of the "risk". Consequently, the greater the portion of the assumed risk, the greater the potential reduction in premiums. Claims costs incurred during the policy year are billed to the employer at the end of that policy year. If the employer's total cost is below what they would have paid had they not enrolled in the retrospective rating plan, they realize the difference in saving.

The City of Youngstown would not benefit from enrolling in the retrospective rating program due to the high dollar losses suffered in each rating year. If an employer exhibits these losses, actual premiums could increase to 50 percent to 100 percent over what the employer would have paid if they were not participating in the program. This would occur as a result of the City's agreement to incur a greater portion of the workers' compensation risk.

R2.35 While the City cannot use the benefits of the retrospective rating program at the present time, it may wish to revisit the feasibility of the program after establishing a risk coordinator, increasing departmental safety and training programs, and ultimately reducing premium amounts. As trends in premium amounts and number of claims show decreases over a period of years due to increased safety and training, the City could potentially enter the retrospective rating program and realize additional savings.

In the initial year of the retrospective rating program, the City is only liable for the claims it incurs during that year. While there may be a significant cash flow benefit within the first few years, this benefit can quickly diminish in future years if the City does not strictly control workers' compensation premiums. If the City's claims loss is lower than predicted, the program is advantageous and premium obligations will be less than they would have been under Youngstown's current plan (the standard experience-rated plan). However, if the loss rate exceeds the prediction, Youngstown will be forced to pay a more substantial premium than normal due to their agreement to assume a greater portion of the risk. Therefore, failure to establish controls and policies to lower the claims may lead to increased claims and cash outflows in subsequent years.

Advantages of the retrospective rating plan include the following:

- **!** The City would be able to spread the payment of claims over a ten-year period which results in a reduction in cash outflow (premium paid is less than the actual claims, especially over the first few years).
- **!** Interest can be earned on the difference between the actual claims and reduced premium (cash outflow benefit).

Should the City enroll in the retrospective rating program, it must first establish a reserve fund. Failure to establish a reserve may preclude the City from funding future claims thereby leading to substantial penalties and interest. A conservative approach recommended by the BWC to ensure an adequate contribution to the workers' compensation reserve would entail banking the amount of the maximum premium (the ultimate retrospective liability) and deducting the annual billings from this amount. Another option recommended by the BWC for the reserve calculation would be to bank the amount of the experience-rated premium (what the employer would have paid if not retrospectively rated) and deduct the annual billings from this amount.

F2.60 After participation in a successful retrospective rating program, the City has the potential for an effective workers' compensation program. With an effective program, the City has greater ability to enter a group rating plan. This rating plan allows employers who operate similar businesses to group together to achieve lower premiums than they could as individual employers.

R2.36 Upon completion of a successful retrospective rating program, the City should enter into a group rating system to continue to decrease workers' compensation premiums. While there is no set rate for all employers, group rating could save an employer as much as 50 percent in premiums. The City would have a built-in incentive to retain strict control over its workers' compensation system as groups have the ability to collectively non-renew any member who has incurred a high experience loss in any given year.

F2.61 Effective workers' compensation programs require the implementation of innovative techniques designed to enhance safety and training and diminish unavoidable claims costs. Some examples of such techniques include the following:

- **!** Provide departmental workers' compensation liaisons with claims handling training, manuals which outline their responsibilities and employer/employee rights, and monthly listings of employees in their departments with open claims, including claim status, type and cost to date
- **!** Implement medical utilization reviews to include all disability claims, including outpatient medical service and long-term medical management of severe and complicated workers' compensation costs

- Provide risk manager training on the benefits of early intervention programs
- Encourage employees to get second medical opinions when physicians prescribe costly medical procedures
- Require supervisors to review questionable claims with the risk manager and the BWC business consultant, respond to all requests for investigations, notify supervisors and consultants when claims are denied, and when appropriate, forward copies of denied medical bills to employees so that they can submit them to their health insurance carriers for payment
- Require supervisory review of initial permanent disability advances to help ensure that advances are appropriate as to potential future awards
- Direct departmental safety officers to interview each employee who files a workers' compensation claim for safety-related concerns. Direct the risk manager or his designee to interview each employee who files more than two claims in a year and follow up with the departmental safety officer and BWC business consultant used

R2.37 The City of Youngstown could benefit from each of the above techniques in successful workers' compensation programs with little expense.

Financial Implications Summary

The following table summarizes the total estimated saving and implementation costs from the above recommendations. The City of Youngstown should consider the potential operational benefits which certain of the recommendations might affect.

Recommendation	Estimated Annual Cost Savings	Cost Avoidance
R2.1 Revise severance payout policy		**$521,570**
R2.2 Reduce sick leave utilization	**$209,000-$353,000**	
R2.5 Revision of sick leave incentives	**$28,000-$134,000**	
R2.12 Reduce minimum call-out payments	**$11,232-$16,848**	
R2.13 Discontinue "on-call" payments	**$8,344**	
R2.14 Discontinue meal ticket policy	**$22,000-$31,000**	
R2.15 Restructuring the longevity policy	**$45,496**	
R2.20 Incorporate monthly premium contributions into fringe benefits	**$366,000-$732,000**	
R2.23 Improve management of worker's compensation costs	**$2,300,000**	
Total	**$2,990,072-$3,620,688**	**$521,570**

Conclusion Statement

City of Youngstown employees are represented by eight distinct bargaining units. The City has negotiated numerous provisions which prevent the City from efficiently and effectively managing City operations. Such provisions include the minimum of four hours for call-out pay for wastewater and street department employees, "on-call" pay for wastewater employees, meal ticket reimbursements, longevity pay after two years of service and the seven step disciplinary process for street department employees. In addition, the union agreements are silent as to employee evaluations and the City does not have a policy requiring annual evaluations. Annual evaluations are a key component in improving the efficiency and effectiveness of employees and providing administrators with a valuable tool to assist with managing.

The negotiated agreements provide five weeks of vacation after seventeen years and six weeks after 23 years of service, which are more generous than the benefits provided by two of the three peer cities. Vacation time accrues based on employee anniversary dates. Consequently, payroll personnel are responsible for tracking vacation balances for each employee as well as changes in accrual rates. Additionally, the negotiated agreements advance increased vacation rates to "January 1 in the calendar year in which the appropriate anniversary is completed." The City should discontinue the process of advancing vacation time as it provides benefits to employees which have not been earned. Additionally, the City should consider collaborating with the unions to increase the number of years of service required in order to receive six weeks of vacation.

Certain of the unions have negotiated with the City a wage compensation package that freezes wage increases but in return, provides for the City to pickup the employee portion of PERS. The City will maintain the 8.5 percent employee pension contribution indefinitely, but future bargaining agreements may not consider these payments when negotiating cost of living increases. Additionally, as salaries increase, the pension contribution will increase. Should future financial situations warrant further budgetary sacrifices, the City should consider collaborating with the unions to reduce the burden of the full employee pension plan contribution.

City of Youngstown employees averaged 8.5 sick days taken in 1998. Both the street and water departments had the highest average number of sick days with an average of 11.7 sick days. Overtime costs at these departments were significant due, in part, to a high number of sick day occurrences. In order to control costs associated with sick leave usage, the City should consider implementing policies which would assist the City in managing and reducing sick leave use. In addition, the City should consider restructuring the sick leave incentive policy in order to achieve the operational effectiveness necessary to offset the costs associated with the incentive.

For 1998, the City's annual benefit cost per employee was $5,770 which was the highest when compared to the peer districts. Factors contributing to Youngstown's high annual insurance cost per employee include the following: the City offers a costly traditional plan, full-time employees are not

required to contribute towards the monthly medical premiums and the medical plans offered require minimal to zero employee annual deductibles. The City and the unions must work together to develop a benefit package that is equitable to both the district and employees. Youngstown could save approximately $366,000 annually if the City required employees to contribute 10 percent towards all medical premiums. Additionally, the City should create an insurance committee which could be used as a vehicle for implementing a number of benefit cost containment approaches.

Historically, workers' compensation premiums have been a significant cost to the City of Youngstown as indicated by the over $13,000,000 in penalty premiums paid by the City since 1993. However, since 1994, the City has significantly reduced the number of lost time claims incurred which has resulted in lower premiums for the City. From 1995 to 1998, the City reduced total premium costs by more than $1.6 million. The reduction in premium costs can be attributed to the City's participation in the BWC Premium Discount Program. Although the City has taken steps to reduce premium costs, the City continues to be penalty rated and should consider implementing numerous policies and procedures in order to decrease premium costs. The City's high premium costs can be attributed to Youngstown's lack of a full-time risk manager, lack of preventative and safety training programs and diminished support by City management. Although the City has retained a workers' compensation consultant at $75,000 annually, the consultant provides little documentation of his work for the City to use as a management tool to increase the effectiveness of the workers' compensation procedures. Hiring a full-time risk manager would enable the City to better manage and reduce premium costs and rely less on the outside consultant. Youngstown must become more proactive in addressing safety issues in the work place and implementing other initiatives in order to reduce premium costs. Such initiatives could include creating a claims trending program, establishing an aggressive claim closure strategy, re-designing the modified duty program, surveying employees on safety and health issues and using the BWC to assist the City in developing effective safety and training programs.

Income Tax

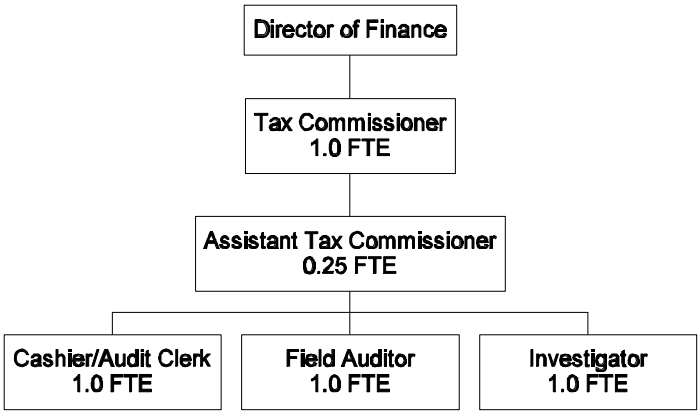
Background

This section summarizes the performance review of the City of Youngstown's (the City) income tax operations. Comparisons are made throughout the report with the peer cities of Canton, Lorain and Springfield, Ohio, to illustrate various operational issues. The City of Youngstown is one of approximately 548 Ohio municipalities with a city income tax in effect, as of December 1998. Income tax rates statewide range from 0.40 percent to 2.85 percent, with the City of Youngstown having an effective municipal income tax rate of 2.25 percent. The significance of the operations of the income tax department to the City's overall financial status is illustrated in **Table 3-5,** which reflects that annually, income tax collections represent in excess of 65 percent of the general fund revenues.

Organizational Chart

The following chart shows the current organizational structure and staffing levels of the City's income tax department.

Chart 3-1
Income Tax Department



Organizational Function

The City's income tax department is charged with the collection, audit and enforcement of the 2.25 percent municipal income tax pursuant to Chapter 181 of the Youngstown City administrative code. Although the City's income tax department is ideally responsible for performing the following functions, the personnel within the department are not fulfilling many of the responsibilities listed below that are generally associated with income tax operations:

- Collecting, receipting, depositing and posting income tax payments
- Reviewing tax returns for accuracy
- Preparing tax related documents
- Educating the public in areas regarding tax law compliance
- Maintaining accurate records of all taxpayers accounts
- Implementing procedures to ensure that residents, employees and employers are filing the appropriate returns/reports with the City
- Enforcing the tax ordinance in a fair and equitable manner
- Alleviating taxpayer concerns
- Pursuing delinquent taxpayer accounts
- Assessing penalties and interest
- Processing and issuing refunds
- Performing various administrative functions

Summary of Operations

The City of Youngstown was the third city in Ohio to enact a municipal income tax. The City's first municipal income tax ordinance was enacted effective July 1, 1948. An income tax has been continuously in effect since 1948, with revisions and progressive increases in the tax rate as illustrated in **Table 3-1.**

Table 3-1: Historical Effective Dates and Income Tax Rates

Ordinance #	Effective Dates	Effective Tax Rate
N/A	July 1, 1948 through December 31, 1951	0.30%
N/A	January 1, 1952 through December 31, 1955	0.50%
65905	January 1, 1956 through March 31, 1960	0.90%
66152	April 1, 1960 through December 31, 1967	1.00%
76939	January 1, 1968 through September 14, 1981	1.50%
81-342	September 15, 1981 through December 31, 1996	2.00%
96-223	January 1, 1997 through current	2.25%

Source: City ordinance documents

Note: N/A = Ordinance number not provided by the City

The City's most recent income tax rate increase of 0.25 percent was passed by the voters specifically for purposes of proper and necessary operations of the police (50 percent) and fire department (25 percent) and proper and necessary capital improvements (25 percent). In essence, the passage of the additional 0.25 percent tax resulted in an increased amount of general fund revenues available for municipal operations.

Enacting a municipal income tax provides funds for general municipal operations and other municipal purposes. The City's municipal income tax ordinance levies a tax on the following sources of income (see **F3.22** for additional discussion of taxable income):

- Salaries, wages, commissions and other compensation earned by residents of the City
- Salaries, wages, commissions and other compensation earned by non-residents of the City for work done or services performed or rendered in the City
- Net profits earned on all resident unincorporated businesses, professions or other activities derived from sales made, work done or services performed or rendered and business or other activities conducted in the City
- Net profits earned on all nonresident unincorporated businesses, professions or other activities derived from sales made, work done or services performed or rendered and businesses or other activities conducted in the City, whether or not such unincorporated business has an office or place of business in the City
- Net profits earned by all corporations doing business in the City as the result of work done or services performed or rendered in the City

In addition, the municipal income tax ordinance establishes the following with regard to municipal income tax administration:

- Requires the filing of returns and the furnishing of information by employers and all those subject to said tax
- Imposes the duty of collecting the tax at the source on employers and paying the same to the City
- Provides for the administration, collection and enforcement of said tax
- Declares a violation of tax ordinance to be a misdemeanor and imposes penalties

Employers within the City are required to withhold income tax on employee compensation and remit the tax to the City either monthly or quarterly (see **F3.24**). Other individual taxpayers are required to pay their estimated tax quarterly if the employer does not withhold taxes from their compensation (see **F3.32**). Corporations are also required to pay estimated tax quarterly. Income tax proceeds are to be recorded in the fund designated by City ordinance and/or authorized by the City's voters (see **F3.6, F3.7**).

The City allows a credit for the amount of income taxes paid to another city. The credit is not to exceed 100 percent of the amount paid to the other municipality up to 2.25 percent (see **F3.26)**. Each taxpayer is required to make and file a return on or before April 15 of the year following the effective tax year. The filing of a return is mandatory whether or not taxes are due or have been withheld from the taxpayer (**see F3.31**).

Staffing

Table 3-2 represents current income tax department staffing for the City.

Table 3-2: Income Tax Department Staffing

Position	# of Budgeted Staff	# of FTEs
Tax Commissioner	1	1.00
Assistant Tax Commissioner	1	0.25
Cashier/Audit Clerk	1	1.00
Investigator	1	1.00
Field Auditor	1	1.00
Total	5	4.25

Source: Tax Commissioner

Note: An FTE refers to a full-time equivalent employee

The income tax department is a division of the finance department of the City. As indicated in **Chart 3-1**, the income tax department personnel are under the supervision of the director of finance. However, the director of finance is not actively involved in the day-to-day operations of the income tax department, therefore, no portion of the director's day is allocated to the operational staffing of the department. The following five position descriptions are based on interviews with personnel and observations of the current operations of the income tax department. The actual functions being performed do not necessarily correspond to the position title or the intent of the position when it was originally created, but have evolved out of necessity due to reduced staffing levels.

The tax commissioner reports to the director of finance and is responsible for the daily operations of the income tax department including the direct supervision of the departmental personnel. These functions include but are not limited to processing tax returns and preparing deposits, providing assistance to the public, reviewing adjustments to tax returns, monitoring delinquencies, providing information on refunds and transfers to general accounting and picking up, sorting and distributing mail to staff.

The assistant tax commissioner is currently assigned to the general accounting section of the finance department in the area of payroll. During the income tax department's peak season (February through April 1999), the assistant tax commissioner worked in the income tax department assisting in the collecting and processing of income tax returns and other tax-related duties as required.

The cashier/audit clerk reports to the tax commissioner and is responsible for collecting monies from taxpayers, reconciling daily deposit batches, performing data entry related to income tax accounts, researching possible taxpayer discrepancies, providing taxpayer assistance, performing month end balancing, processing refunds, handling adjustments to taxpayer accounts, checking tax returns for accuracy, filing documents and handling any other necessary clerical duties.

The investigator reports to the tax commissioner and is responsible for opening and sorting mail, checking tax returns for accuracy, researching tax returns with discrepancies, providing taxpayer assistance, mailing tax forms and handling any other clerical duties.

The field auditor reports to the tax commissioner and is responsible for processing tax returns and reviewing for accuracy, researching tax returns with discrepancies, providing assistance to taxpayers, sending out tax forms, handling non-sufficient fund checks in coordination with the legal department and handling any other clerical duties.

Financial Data

Table 3-3 presents the income tax department's actual expenditures for calendar year 1997 and 1998 and the budgeted expenditures for calendar year 1999 as presented in the expenditure/budget reports prepared by the finance department. The income tax division is appropriated from the general fund and included in the finance department (03) as division (30).

Table 3-3: Income Tax Department Financial Data

Appropriation Account	Actual 1997	Actual 1998	Budgeted 1999
Salaries	$140,646[1]	$196,610[2]	$198,300
Fringe Benefits	4,647	6,168	6,500
Travel and Seminars	702	1,172	1,500
Professional Services	4,864	22,416[3]	25,000
Maintenance Services	259	657	750
Rental Expense	0	1,032	1,000
Office Supplies	0	11,210	10,000
Postage and Shipping	19,815	12,961	20,000
Total	$170,933	$252,226	$263,050

Source: Expenditure/Budget Report by Fund/Department/Division, Finance Office

[1] The variance between actual 1997 and actual 1998 salaries is the result of the staffing of the assistant tax commissioner position in 1998.
[2] Although the salary of the assistant tax commissioner is budgeted and charged to the income tax division of the finance department, the assistant tax commissioner performs payroll-related duties 75 percent of the time.
[3] The variance between the amount of professional services expenditures during 1997 and 1998 results from collection fees paid to outside agency not being charged to the income tax division for the full year of 1997.

Operational Statistics and Ratios

Key statistics and information relating to the operations of the City's income tax department are shown in **Tables 3-4(A)** through **3-4(E)**. Comparative analyses and assessments performed throughout this section include information on the peer cities from the following tables.

Table 3-4(A): General Operational Statistics and Ratios

Year 1998	Youngstown	Canton	Lorain	Springfield
Tax Rate	2.25%	2.00%	1.75%	2.00%
Active Tax Accounts				
Business	2,992	3,000	2,133	10,000
Individual	16,961	30,736	23,173	35,000
Total Tax Accounts	**19,953**	**33,736**	**25,306**	**45,000**
Accounts Processed per Staff Member	4,695:1	2,109:1	3,163:1	2,904:1

Source: Financial records of the City, peer cities information

Table 3-4(B): Collection Statistics and Ratios

Year 1998	Youngstown		Canton		Lorain		Springfield	
	Collection $ Amount	% of Total Collected	Collection $ Amount	% of Total Collected	Collection $ Amount	% of Total Collected	Collection $ Amount	% of Total Collected
Employers Quarterly W/H	$2,962,891	9.3%	$7,674,481	20.8%	$14,181,396	82.9%	$4,503,576	17.2%
Employers Monthly W/H	$25,531,608	80.1%	$23,023,442	62.5%	(1)	(1)	$16,818,215	64.4%
Business	$1,731,518	5.4%	$2,589,589	7.0%	(1)	(1)	$2,076,116	7.9%
Professional	$484,183	1.5%	(2)	(2)	(1)	(1)	(2)	(2)
Individual	$1,164,029	3.7%	$3,564,244	9.7%	$2,889,217	17.1%	$2,737,133	10.5%
Total Collections	$31,874,229	100.00%	$36,851,756	100.0%	$17,070,613	100.0%	$26,135,040	100.00%

Source: Financial records of the City, peer cities information
Note: (1) The City of Lorain does not account for tax revenues by categories shown.
(2) Amounts collected for professionals included in business category.

Table 3-4(C): Additional Income Tax Information

Year 1998	Youngstown	Canton	Lorain	Springfield
Credit allowed for taxes paid to another municipality	100% up to 2.25% paid to others	100% up to 2.00% paid to others	100% up to a maximum of 1.75%	50% up to a maximum of 1.00% paid to others
Mandatory filing	Yes	Yes	Yes	Yes
Late filing penalty	$5	$25	$25	<30 days late-$25 30 to 120 days-$50 >120 days -$100
Late payment penalty	.5% of amount unpaid tax or $5 whichever is greater	$25	10% of final tax liability paid after due date	10% of final tax liability paid after due date
Interest charges	12% per annum	3% per month on unpaid balance	12% per annum	12% per annum

Source: Financial records of the City, peer cities information

Table 3-4(D): Refund and Penalty Information

Year 1998	Youngstown	Canton	Lorain	Springfield
Refunds	$1,132,428	$1,057,891	$520,050	$610,197
Refunds as % of Gross Collections	3.6%	2.8%	3.0%	2.3%
Interest & Penalty	$22,844	$300,311	$124,590	$256,602

Source: Financial records of the City, peer cities information

Table 3-4(E): Demographic Statistics and Ratios

Year 1998	Youngstown	Canton	Lorain	Springfield
Population	87,405	81,079	69,800	67,480
% of Population Filing Individual Return	19%	42%	36%	52%
Median Household Income	$17,060	$19,807	$24,123	$21,407

Source: Financial records of the City, peer cities information, Bureau of Statistics

Performance Measures

The following performance measures were used to analyze the income tax department operations and policies and procedures:

- Clearly defined roles and responsibilities of key personnel in the operations of the income tax department
- Adequacy and effectiveness of staffing levels and mix based on operational assessments and peer city comparisons
- Assessment of overtime and leave utilization and retirement eligibility status by position
- Appropriate distribution and expenditure of income tax collections
- Effectiveness and efficiency of income tax transaction processing
- Effective identification of income tax receipts
- Effective management of delinquencies
- Adequacy of automated systems
- Adequacy of technical assistance provided
- Assessment of outside collections agency

Findings/Commendations/Recommendations

Income Tax Collections

F3.1 Municipal income tax revenues are crucial to the City's ability to operate financially. The significance of the operations of the income tax department to the City's overall financial status is illustrated in the table below, which reflects that annually, income tax collections represent, on average, approximately 67 percent of the general fund revenues and approximately 50 percent of the total governmental funds revenues. **Table 3-5** illustrates the total municipal income tax collections for the calendar years of 1990 through 1998 and the percentages of total governmental funds revenues and general fund revenues made up by income tax collections.

Table 3-5: Income Tax Collections
Years Ending 12/31/90 through 12/31/98

Year of Collections	Total Municipal Income Tax Collections	Income Tax as a Percentage of Governmental Funds Revenues	Income Tax as a Percentage of General Fund Revenues
1990[1]	$24,645,440	56.1%	N/A
1991	$24,892,698	52.3%	N/A
1992	$25,823,035	54.4%	N/A
1993	$26,072,514	47.5%	65.6%
1994	$26,087,868	43.9%	66.5%
1995	$27,068,181	47.3%	66.2%
1996	$27,085,741	46.6%	67.2%
1997[2]	$29,380,216	49.1%	67.1%
1998	$30,764,645	49.7%	68.2%

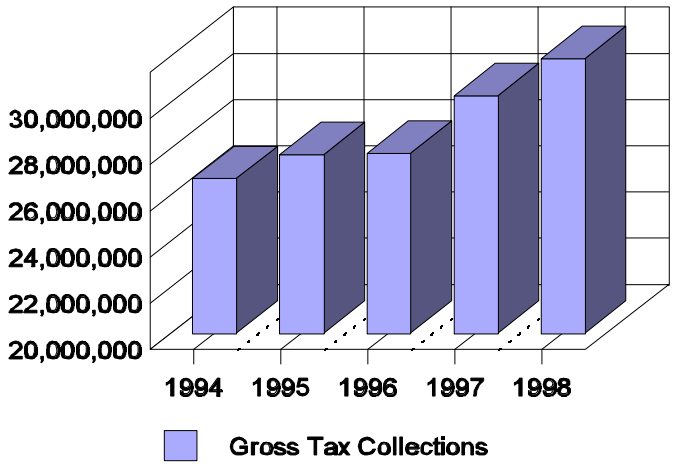
Source: Income tax department

Note: N/A = Municipal income taxes were not reflected as a separate line item on cash basis financial statements

[1] Two percent income tax rate effective 1990 through 1996.
[2] An additional one-quarter percent income tax was levied beginning with 1997 - 2.25 income tax rate effective 1997 and thereafter.

F3.2 In November 1996, City voters approved an increase of the city income tax from two percent to two and one-quarter percent, effective January 1, 1997, which was projected to bring in an additional $3.5 million in revenues annually (per Moody's Investors Services 2/12/97). **Graph 3-1** illustrates the trend in revenue collections for the City during the past five calendar years.

Graph 3-1: Income Tax Collections 1994 - 1998



F3.3 **Table 3-6** presents an analysis of the actual gross income tax collections for the years of 1996, 1997 and 1998 versus potential income tax collectable for the years of 1997 and 1998. The estimated tax base for 1996 was calculated by dividing the total gross collections by the effective tax rate during 1996 of 2.0 percent. A conservative annual inflationary rate of two percent was applied to the 1996 and 1997 tax base in order to project taxable bases for the years of 1997 and 1998, respectively. The resulting tax bases for 1997 and 1998 were multiplied by the effective tax rate during 1997 and 1998 of 2.25 percent to determine the amount of estimated income tax that should have been collected. Based on the one-quarter percent increase in 1997, the City should have collected $31.6 million and $32.5 million in income tax revenue for 1997 and 1998, respectively. However, actual gross income tax collections for those two years were $30.3 million and $31.9 million. This analysis indicates the City did not maximize its collection of income tax revenue and potentially lost $1.3 million and $650,000 in income tax revenues for 1997 and 1998, respectively. The financial implications associated with increasing the City's income tax collection efforts is presented in R3.1.

Table 3-6: Estimated Lost Income Tax Revenues for the Years of 1997 and 1998

Description	1996	1997 [1]	1998
Effective Tax Rate	2.0%	2.25%	2.25%
Estimated Tax Base	$1,389,440,750	$1,417,229,565	$1,445,574,156
Estimated Income Tax Collectable @ 2.25% Effective Tax Rate	N/A	$31,592,409	$32,525,419
Gross Collections	$27,778,815	$30,274,034	$31,874,229
Estimated Potential Lost Revenue	N/A	$1,318,375	$651,190

[1] Estimated potential revenue for 1997 was adjusted to reflect 11 months of collections at the new rate.

F3.4 The importance of the collection of **all** potential income tax revenues to the City's cash flow and ability to operate becomes even more crucial in consideration of the fact that the independent auditors' reports issued for the past five years include a disclosure indicating that the City suffered recurring losses from operations and has a net fund balance deficiency. This raises substantial doubt about its ability to continue operations without layoffs, cuts in public services or significant new sources of revenue.

F3.5 As shown in **Table 3-4**, only 19 percent of the population in the City of Youngstown filed a return in 1998, as compared with the significantly higher percentages of 42 and 52 percent for the cities of Canton and Springfield, respectively. This difference is appreciable, given that all three cities have mandatory filing requirements and that the City of Youngstown has the largest population. The income tax department has indicated that persons with retirement or other non-taxable income are not required to file a City return as a practice, although the City has a mandatory filing requirement. These statistics, in conjunction with the lack of adequate procedures to ensure all income revenue is collected and other operational inefficiencies discussed throughout this report, indicate there is a potential to enhance the City's current income tax collections.

However, because the City currently lacks adequate processes and is poorly managing its income tax operations, it cannot identify potential taxpayers to properly determine the amount of additional revenue that could be collected. In an attempt to quantify the amount of potential tax revenue collectable from taxpayers, an analysis was performed, which is summarized in **Table 3-7**. The analysis was performed using the cities of Canton and Springfield because of their high population filing percentages, which indicate effective income tax operations. The objective of the analysis was to determine the amount of potential additional income tax revenue that the City of Youngstown could realize if it operated similarly to the cities of Canton and Springfield.

The following assumptions were utilized:

- The cities of Canton and Springfield have tax bases comparable with the City of Youngstown.
- The makeup of the taxpayers in the cities of Canton and Springfield is similar to that in the City of Youngstown.
- The cities of Canton and Springfield have efficient income tax operations.
- The cities of Canton and Springfield are currently collecting all revenue they are entitled to.
- The City of Springfield's policy to allow a credit of 50 percent up to a maximum of 1.0 percent compared to Youngstown's and Canton's credit of 100 percent up to the tax rate does not have a significant impact on the amount of total collections.

Based on the above assumptions, the following table shows the range of potential additional income tax revenue to the City of Youngstown. The analysis was performed by first determining the tax bases for the selected cities by dividing the 1998 collections amount by the applicable tax rate for that city. Because there is a difference in the population size of the selected cities, the tax base was then adjusted to determine what the tax bases for Canton and Springfield would be if their population sizes were 87,405, the same as Youngstown's. The $1.99 and $1.69 billion adjusted tax bases represent the potential tax bases for the City of Youngstown, assuming it could collect as effectively as the cities of Canton and Springfield. These adjusted tax bases were multiplied by the 2.25 percent tax rate to determine the amount of estimated taxes collectable by the City of Youngstown. The differences between the estimated taxes collectable and the actual amounts collected by the City of Youngstown represent the range of potential additional income tax revenue before the effect of certain demographical differences between the cities.

Table 3-7: Potential Income Tax Revenues Collectable Based on Peer Comparisons

	Youngstown	Canton	Springfield
Tax Rate	2.25%	2.0%	2.0%
1998 Collections	$31,874,229	$36,851,756	$26,135,040
1998 Tax Base	$1,416,632,400	$1,842,587,800	$1,306,752,000
Population Size	87,405	81,079	67,480
Tax Base Adjusted for Population Size		$1,986,351,418	$1,692,600,156
Estimated Taxes Collectable for Youngstown (assuming comparable collection ability)		$44,692,907	$38,083,504
1998 Collections (Youngstown)		$31,874,229	$31,874,229
Potential Additional Income Tax Revenue Before Effect of Certain Demographic Data		**$12,818,678**	**$6,209,275**
1998 Unemployment Rate	10.9%	6.6%	5.3%
Median Household Income	$17,060	$19,807	$21,407
Potential Additional Income Tax Revenue Assuming a 20% Effect for Above Demographics		**$10,254,942**	**$4,967,420**

Note: All three cities have mandatory filing requirements. In addition, Youngstown's sources of income subject to municipal tax is comparable to the other peer cities (**F3.22**). There have been no significant aberrations in total gross income tax revenues amongst the three cities for the last three tax years.

R3.1 The analysis in **Table 3-7** indicates there is a significant potential to enhance the city's current income tax collections. However, the collection of this additional revenue will require the city to substantially modify its current operations, as discussed in various recommendations throughout this report. To effectively collect additional revenue utilizing in-house operations, a reorganization of the existing department will be necessary to provide an adequate number of appropriate staff to identify and pursue additional taxpayers

(**R3.6**). An enhanced income tax system will also be necessary to provide the functionality to properly manage and track relevant income tax data (**R3.20**). Using additional staff and an improved system in conjunction with the implementation of strategies and procedures to identify all potential income tax revenue and collect all revenue due to the city will be necessary to realize additional income tax revenue (see the *Operations Management* and the two *Delinquent Accounts* subsections of this report). Given the operational and financial challenges confronting the city, another option for the collection of additional income tax revenue would be the utilization of an external vendor that provides income tax management services (see the *External Income Tax Management Services* subsection of this report).

Financial Implication: The City of Youngstown is not collecting a significant portion of available income tax revenue. This conclusion is supported by utilizing and applying the peer statistics and ratios presented in **Tables 3-4(A)** through **3-4(E)** to the City's income tax operations. In addition, **F3.29** lists key activities currently not being performed by the City to identify all potential taxpayers, which could result in the establishment of tax liability and significant additional revenue. The City's ability to effectively perform critical income tax operations is limited, in part, by a small staff and antiquated income tax system with basic functionality. Based upon the various analyses performed as part of this performance audit, it appears the City of Youngstown is under-collecting income tax revenue of approximately $5.0 million annually. The $5.0 million estimate is based upon certain assumptions which were required because of the lack of accurate and reliable income tax management information and statistics. This figure could potentially be higher due to the significant number of deficiencies identified in this report. Additionally, it is important to note that this estimate does not include revenue from the City's ability to retroactively collect dollars owed under the 3 year statute of limitations prescribed by City ordinance.

The City provided an analysis which indicated potential additional income tax revenue ranging up to approximately $3.0 million. However, because of questionable assumptions and lack of key income tax management information, the difference between the City's estimate and the Auditor of State's estimate could not be resolved. Although the overall methodology and most of the assumptions have merit, certain key assumptions made by the City are not supported by other facts and result in a lower estimate of additional income tax revenue. For example, the total estimated number of filers within the City is not consistent with other information from the Ohio Department of Taxation. A significant reduction factor was also applied which does not correlate to known demographic data.

F3.6 **Table 3-8** outlines the required allocation of municipal income taxes collected by the City.

Table 3-8: Allocation of Municipal Income Taxes Collected as Required by City Ordinances

Ordinance Number	Effective Date	Tax Rate Increase	Total Income Tax Rate	Required Allocation for Amount of the Increase
65905	January 1, 1960	1.00%	1.00%	General operations, including maintenance, new equipment, extension and enlargements of municipal services, facilities and capital improvements
76939	January 1, 1968	.50%	1.50%	General operations, including maintenance, new equipment, extension and enlargements of municipal services, facilities and capital improvements
81-342	September 15, 1981	.50%	2.00%	40% - Proper and necessary operation of the police department 35% - Proper and necessary operation of the fire department 25% - Capital improvements [1]
96-223	January 1, 1997	.25%	2.25%	50% - Proper and necessary operation of the police department 25% - Proper and necessary operation of the fire department 25% - Proper and necessary capital improvements [2]

Source: City ordinance documents

[1] Capital improvements include road repair and improvements, and the construction, rehabilitation and improvement of bridges, sewer systems, municipal airport landing field facilities and the construction and improvement of buildings which house governmental services and functions.

[2] Capital improvements include road repair and improvements, and the construction, rehabilitation and improvement of bridges, sewer systems, municipal airport landing field facilities and the construction and improvement of buildings which house governmental services and functions.

F3.7 The income tax department remits income tax collections on a daily basis to the finance office. The finance office allocates the income tax revenues based on percentages specified by City ordinance. Income tax revenue is credited to four funds. Section 181.04 states that income taxes levied and collected will be allocated as follows: The General Fund receives 75 percent of the original two percent municipal income tax. Of the remaining 25 percent, 40 percent is credited to the Police Levy Special Revenue Fund, 35 percent to the Fire Levy Special Revenue Fund and 25 percent to the 1/4 of Five Mill Capital Improvement capital Projects Fund. The additional one-quarter percent, which was levied for the effective date

of January 1,1997, is allocated at 50 percent to the police levy special revenue fund, 25 percent to the fire levy special revenue fund and 25 percent to the 1/4 of five mill capital improvement capital projects fund.

As a result of interviews with the finance director and a review of the flow of monies required for the amount of the tax rate increase, it was determined that the specified tax revenues are transferred into the capital improvement fund (402) through the daily tax receipt allocation. At the end of each month, a transfer is made from the capital improvement fund to the parks and recreation fund (102) and the street fund (106). The amounts of the monthly transfers are determined at the beginning of each calendar year by the finance director. For 1997, the monthly amounts transferred were $90,385 to the parks and recreation fund and $111,176 to the street fund. For 1998, the monthly amounts were $81,250 and $116,675, respectively.

Capital improvement expenditures in the parks and recreation fund and the street fund are significantly less than the revenue generated from the income tax increase allocated to capital improvements. The total revenue generated in 1997 from the income tax levy allocation to the capital improvement fund was $2,364,306. However, a preliminary review of financial activity in the parks and recreation fund and street fund did not conclusively indicate noncompliance.

Organizational Issues

F3.8 **Table 3-9** illustrates that the City of Youngstown's income tax department FTE staffing levels are the lowest when compared with the peer cities.

Table 3-9: Comparison of Income Tax Staff by Position (FTEs)

	Youngstown	Canton	Lorain	Springfield
Director/Professional	1.00	2.00	1.0	1.00
Income Tax Staff Members	3.25	20.00	7.0	14.50
Total	4.25	22.00	8.0	15.50

Source: City reports and peer cities information

Table 3-10 presents the ratio of active tax accounts per income tax staff member. The City processes approximately 19,953 tax accounts annually and has 4.25 FTE income tax staff members. The ratio of income tax accounts assigned to the income tax staff is 4,695:1. This ranks the City's income tax department as processing the highest number of income tax accounts per staff member when compared with the peer cities.

Table 3-10: Tax Accounts Processed Per Income Tax Staff Member

	Youngstown	Canton	Lorain	Springfield
Total Income Tax FTE Employees	4.25	22.00	8.0	15.50
Active Tax Accounts	19,953	37,000	25,306	45,000
Ratio	4,695	2,109[1]	3,163	2,904

Source: City reports and peer cities information

[1]Calculation of ratio excludes 6.0 FTEs for personnel performing collection procedures only. Youngstown utilizes an outside collection agency, Lorain does not have personnel solely responsible for collections and Springfield utilizes the collection department within its finance department.

F3.9 Several factors have contributed to the minimal staffing levels which currently exist in the income tax department, including a city-wide layoff and a hiring freeze. Although the number of accounts per staff is high as a result of reduced staffing levels, analysis of the income tax department's operations indicates consistent inefficiency and ineffectiveness, which is highlighted throughout this report.

Basic clerical functions are performed on a day-to-day basis by the income tax department personnel with very little supervisory oversight. The tax commissioner, field auditor and investigator spend the majority of their time performing clerical tasks. As the majority of the department's efforts are allocated to clerical tasks, there is minimal time allocated to management tasks required to maximize income tax revenue, including the following:

- Identifying all potential taxpayers
- Ensuring all potential taxpayers file the mandatory return
- Verifying the accuracy of returns filed
- Enforcing the required estimated tax payments
- Verifying refund information prior to payment
- Monitoring delinquent tax accounts
- Enforcing the penalty and interest requirements.

Key statistics such as the low percentage of the population filing returns despite mandatory filing and a larger population than the peer cities (**Table 3-4)**, higher percentage of refunds in comparison to total collections than the peer cities (**Table 3-4)**, lower interest and penalty collections than the peer cities (**Table 3-4)** and a large number of outstanding delinquent accounts (**F3.43**) support the need for the above management activities at the City of Youngstown.

F3.10 **Table 3-11** presents the staffing levels of the income tax departments for the City and the peer cities by position description. As shown below, the City currently employs 4.25 full-time equivalent (FTE) employees.

Table 3-11: Total 1998 Staffing
FTE Employees and Position Descriptions

Position Description	Youngstown [1]	Canton [2]	Lorain	Springfield [3]
Tax Commissioner	1.00	1.00	1.00	1.00
Assistant Tax Commissioner	0.25	0.00	0.00	0.00
Investigator	1.00	0.00	0.00	0.00
Field` Auditor	1.00	0.00	0.00	0.00
Cashier/Audit Clerk	1.00	2.00	1.00	0.00
Account Clerk	0.00	0.00	4.00	13.50
Data Entry Clerk	0.00	2.00	1.00	1.00
Tax Auditor/Collector	0.00	10.00	1.00	0.00
Tax Examiner	0.00	2.00	0.00	0.00
Audit Supervisor	0.00	1.00	0.00	0.00
Bookkeeper	0.00	2.00	0.00	0.00
Intern	0.00	2.00	0.00	0.00
Total FTE Employees	**4.25**	**22.00**	**8.00**	**15.50**

Source: City records and peer cities information

[1] The City utilizes an outside agency for collections.

[2] The City of Canton employs 6.0 FTE personnel to perform collection procedures. These positions are included in the table above.

[3] For the City of Springfield, the total number of FTEs does not include any staff for collection activities. Collection activities are performed by the finance department.

The City has the lowest FTEs overall when compared with the peer cities. Historically, several factors have contributed to the City's minimal staffing levels reflected above. In 1981, the income tax department had a staff of approximately 28 employees. In response to the decline in the iron and steel industry during the late 1970's and early 1980's which significantly impacted the financial status of the City, departmental layoffs city-wide were required. In addition, a hiring freeze was enacted in 1995 in response to the City's fiscal watch status. As a result, vacancies resulting from attrition have not been filled**.**

F3.11 **Table 3-12** illustrates that five positions were budgeted for calendar years 1998 and 1999. Although the position of assistant tax commissioner is budgeted for the income tax department, the duties performed by the person filling the assistant tax commissioner position are 75 percent payroll related. Therefore, for purposes of income tax department staffing and performance of duties, the position is considered 25 percent applicable to the income tax department.

Table 3-12: Income Tax Department Budgeted/Filled/Vacant Positions

Position Description	Number of Budgeted Positions	Number of Filled Positions	Number of Vacant Positions
Tax Commissioner	1.00	1.00	0.00
Assistant Tax Commissioner	1.00	0.25[1]	0.75
Investigator	1.00	1.00	0.00
Field Auditor	1.00	1.00	0.00
Cashier/Audit Clerk	1.00	1.00	0.00
Total Positions	**5.00**	**4.25**	**0.75**

Source: City personnel records

[1] Although the salary of the assistant tax commissioner is budgeted and charged to the income tax division of the finance department, the assistant tax commissioner performs payroll-related duties 75 percent of the time.

F3.12 The following table presents the salary/wages expenditures for the four most recent calendar years. As illustrated, overtime wages have ranged from 11.0 percent to 16.2 percent of total payroll expenditures over the past four years. Overtime is paid at a rate of 1.5 times the regular hourly wage earned. Currently, the City does not have a policy governing the use of overtime.

Table 3-13: Salary/Wages Expenditures
1995 through 1998

Year of Payroll Expenditure	Total Salary/Wages	Regular Salary/Wages	Overtime Wages	Overtime as a Percentage Salaries
1995	$185,064	$159,601	$25,463	13.8%
1996	176,532	154,126	22,406	12.7%
1997	140,646	117,858	22,788	16.2%
1998	196,610	177,201	19,410	11.0%

Source: City budget reports

R3.2 In the absence of a city-wide policy governing the use of overtime and taking into consideration the percentage of overtime expended annually, the income tax division of the finance department should establish a policy which would govern the use of overtime. The policy should establish criteria for the use of overtime as follows:

- The need for extra time based on the work load during the tax season
- Specific projects with a deadline
- Other issues which affect the daily routine in the income tax office

Additionally, overtime requests should be made in writing, individually specifying the name of personnel to work, the overtime hours to be worked and the purpose of the overtime. The request should be signed and dated by the finance director to indicate advance approval of overtime hours worked.

F3.13 **Table 3-14** presents a breakdown of the overtime wages expended during the 1998 calendar year by income tax department position. According to the tax commissioner, approximately two-thirds of the overtime expenditures are the result of personnel working during the peak of tax season when the department's workload is increased. The work performed during this peak season is largely clerical in nature, such as receipting and depositing tax revenues collected and processing the high volume of tax returns received. As indicated below, the tax commissioner was paid 84.3 percent of the total overtime expenditures of the income tax department.

Table 3-14: 1998 Overtime Wages Expended by Position

Position	Base Salary per Ordinance	Actual W-2 Salary	Overtime Wages Paid	Percentage of Total Overtime Paid
Tax Commissioner	$45,576	$67,728	$16,366	84.3%
Assistant Tax Commissioner	34,751	37,915	0	0.0%
Field Auditor	31,912	35,495	676	3.5%
Investigator	31,912	35,645	631	3.3%
Cashier/Audit Clerk	27,167	32,181	1,737	8.9%
Totals	$171,318	$208,964	$19,410	100.0%

Source: City ordinance, form W-2's and payroll registers

Note: In addition to overtime, the difference between base salary and W-2 salary includes longevity, meal tickets and authorized absences such as attending conferences and funerals.

R3.3 The City would significantly reduce overtime expenditures by either hiring a seasonal or temporary employee to work during the income tax department's peak season or utilizing the lower cost employee within the department for the purpose of performing clerical functions such as tax return processing, data entry and filing. In addition, it would be more cost effective to hire a seasonal or temporary employee at a rate of $6.33 per hour as authorized by the City's payroll ordinance, as opposed to paying overtime wages ranging from $32.87 per hour to $19.59 per hour for existing staff. Additionally, the tax commissioner could allocate more time to performing managerial functions and the additional position would allow the division greater flexibility in the event there is a loss of any key employees.

Financial Implication: Assuming that two-thirds of the total overtime paid is attributable to peak season operations, and assuming an hourly wage for the seasonal position of $6.33 per hour at 40 hours per week during a three-month period, an annual cost savings of approximately $8,661 in overtime expenditures would result from the hiring of a seasonal employee. Another alternative would be utilizing the lower cost employee in the department, resulting in an annual cost savings of approximately $6,610.

F3.14 **Table 3-15** presents the leave utilization and accumulated leave balances for the four full-time positions currently staffing the income tax department. As indicated below, employees averaged 7.6 sick days and 29.6 vacation days during calendar year 1998. Assuming a total of 249 working days per year (5 days per week times 52 weeks less 11 holidays), income

tax department employees were absent approximately 15 percent of the total working days during 1998. Substitute clerical workers are not obtained in the absence of income tax department personnel.

Table 3-15: Leave Utilization and Accumulated Leave Balances

Position	Hours Sick Leave Usage		Accum Hrs Sick Leave Balance	Hours Vacation Leave Usage		Accum Hrs Vacation Leave Balance
	1997	1998		1997	1998	
Tax Commissioner	0.0	0.0	1,522.16	240.0	240.0	61.42
Field Auditor	1,036.0[1]	88.0	57.39	240.0	240.0	116.78
Investigator	66.0	44.0	2,017.05	240.0	260.0	206.76
Cashier/Audit Clerk	117.5	111.1	28.18	192.0	208.0	185.23
Total Leave Usage	1,219.5	243.1		912.0	948.0	
Average Leave Hrs per Position	304.9	60.8		228.0	237.0	
Average Leave Days per Position	38.1	7.6		28.5	29.6	

Source: Payroll department

[1] During 1997, the field auditor incurred long-term leave as the result of an accident.

F3.15 **Table 3-16** presents a profile of the current retirement eligibility status for the staff of the income tax department.

Table 3-16: Retirement Eligibility Status

Position	Service Years	Eligibility Status
Tax Commissioner	28 years	Eligible in 2 years
Investigator	27 years	Eligible by age
Field Auditor	25 years	Eligible by age
Cashier/Audit Clerk	19 years	Not eligible

Source: Payroll department

City officials have discussed the possibility of offering a service credit buy-out as an incentive for early retirement. Although exact details of the buy-out and the certainty of such a buy-out occurring are unclear, the operations of the income tax department would be greatly impacted. Two of the four employees are currently eligible for retirement, as indicated above. The tax commissioner may be eligible, depending upon the provisions of potential service credit buy-out.

R3.4 If the City maintains income tax operations in-house, the City must immediately develop contingency plans to deal with the high number of absences and pending loss of employees due to retirement in the income tax department. The high number of absences impede the efficiency and effectiveness of the department as daily functions, those of the absent employee or those of the employee covering the absence, may not be completed in a timely manner. In addition, the pending retirement of personnel poses significant operational issues. The income tax department cannot effectively operate on a daily basis without an adequate number of personnel. Contingency plans could involve the use of temporary personnel and/or cross training of other finance department personnel to perform the duties in the income tax department. The hiring of additional personnel under the reorganization recommended in **R3.6** will help, in the long term, to alleviate potential disruptions in operations caused by having a small staff who are mostly eligible for retirement.

F3.16 Discussions with income tax personnel and observations of departmental procedures appear to indicate that non-clerical staff within the income tax department are not fully trained or familiar with complex tax issues. Contributing to this lack of familiarity are the following factors:

- **!** No regular formal training for departmental employees
- **!** Job descriptions that have not been revised since 1983
- **!** No procedure manual or checklist for the review of income tax returns (see **F3.36** and **R3.19**)
- **!** No comprehensive income tax calendar (see **F3.35** and **R3.18**)

R3.5 In order for the income tax department to function at an optimal level of efficiency and effectiveness, the non-clerical staff within the department should possess, at a minimum, the following basic requirements for proper auditing of returns and administering of a municipal income tax:

- **!** Thorough knowledge of City tax ordinances
- **!** Knowledge of federal tax laws, regulations and schedules, as they directly apply to the examination and preparation of City tax returns
- **!** Knowledge of other city tax rates, as the credits apply to the preparation of City tax returns
- **!** Ability to prepare returns from information on various tax documents including, but not limited to, federal schedules or other city tax returns
- **!** Ability to make necessary computations with accuracy and complete understanding
- **!** Ability to use individual judgment based on comprehensive knowledge of office procedures
- **!** Ability to communicate with taxpayers (such as individuals, employers, businesses, accountants and attorneys) as necessary to seek or clarify information relative to the tax return

- **!** Ability to fully explain audit procedures to the taxpayer in a manner which they easily understand
- **!** Complete knowledge of federal and state laws, as they apply to the confidentiality of income tax information

To address this issue, several recommendations should be considered. A formal training program should be developed for the non-clerical staff which would include topics drawn from the list of basic requirements above. The training program could consist of courses designed and presented by departmental staff, courses offered through private training organizations and training opportunities provided by state and federal governmental organizations.

The City should revise the income tax department position descriptions so the duties and required knowledge/skills more accurately reflect basic functions needed to support the City's income tax operations. In determining these items, the City should also take into consideration what future activities will be needed to maintain any operational enhancements recommended and implemented from this report. Once the position descriptions have been updated, the City will be better able to properly evaluate the staff and help ensure that they remain qualified.

A formal procedure manual for the review of income tax returns and a comprehensive income tax calendar should be developed. These recommendations are discussed in greater detail in **F3.36**, **R3.19** and **F3.35**, **R3.18**.

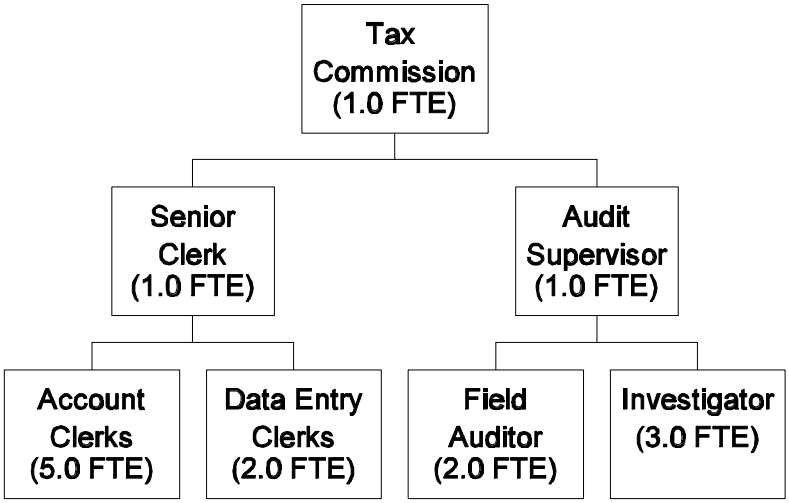
F3.17 In general, the current organization and staffing level of the income tax department does not ensure all applicable functions are adequately performed. In addition to the limitations placed on the operations of the income tax department as a result of a minimal staff (see **F3.9** for a detailed discussion), the current income tax system is in excess of 20 years old. The income tax staff have limited knowledge of the system and any income tax related reports needed must be obtained through the City's computer services department. Further discussion on the inadequacies of the income tax software is found in the income tax software segment of this section of the report, beginning with **F3.38.** Furthermore, as **Table 3-16** indicates, the income tax department will realize significant staff turnover in the next few years due to the retirement of current personnel. As income tax revenue represents approximately two-thirds of total general fund revenue, a properly staffed and operating income tax department is essential to the financial viability of the City.

R3.6 The City needs to immediately address the staffing and operational needs of the income tax department to alleviate the current deficiencies (see **F3.9** for listing of key management activities not currently being performed). Positions should be created and filled with qualified personnel, to ensure that all necessary functions are completed on a timely basis

to maximize income tax revenue. Comparisons with peer cities and other agencies indicate that Youngstown lacks an adequate number of managers, auditors/investigators, and support staff. An adequate income tax system needs to be implemented to improve the efficiency and effectiveness related to the maintenance and use of income tax information (see **F3.38** through **F3.42** for additional discussion on income tax software).

Prior to the City instituting such changes, the City must ensure all parties involved, including the finance director, tax commission and existing income tax department staff, have agreed and are committed to a coordinated effort for the implementation of the new polices and procedures needed to create a productive and efficient environment. If the current in-house operations cannot be improved to an acceptable level, or if needed improvements prove too costly, the City should aggressively pursue the options provided in the *External Income Tax Management Services* subsection of this section. Presented below is one possible department structure, including additional positions and a reorganization, to bring the income tax department at Youngstown in line with those at Canton and Springfield.

Chart 3-2: Proposed Income Tax Department



This proposed organization would increase the department's staffing level to 15 full-time positions from the current 4.25 full-time positions. These additional positions would assist the department in achieving greater efficiency and consistency within the income tax department. Additional auditors and investigators will provide the department with a means to identify additional taxpayers, monitor and enforce the mandatory filing requirement, monitor and address delinquent accounts and ensure the accuracy of the returns filed. In essence, these positions would help ensure that the City is realizing the maximum income tax revenue available. The additional clerical and data entry positions would provide the necessary support to receive, record and maintain tax information, as well as provide customer support, prepare and distribute correspondence and perform other department operational support functions. Information obtained from another municipality in Ohio indicates the cost (salary and benefits) of an additional auditor could most likely be offset by the additional revenue generated by that position.

The current office space occupied by the income tax department is not sufficient to accommodate the proposed staffing levels. Therefore, not only would additional space need to be located, the City would incur one time costs associated with providing furniture and equipment.

Financial Implication: To maintain the income tax department entirely in-house will require a significant investment by the City of Youngstown. Annual salary cost related to seven clerical positions (assuming $20,000 beginning salary) and three auditor/inspector positions (assuming $25,000 beginning salary) would be $215,000. A full-time supervisor position (assuming $30,000 beginning salary), less the current salary of the part-time assistant tax commissioner ($8,700), would add an additional $21,300 in salary expenditures. When benefit costs (40 percent of wages) are considered, the annual operational costs of the department could increase by approximately $331,000. Increases in other operating costs, such as materials and supplies, communications and travel will occur, but cannot be reasonably estimated.

The City would also incur significant one-time implementation costs. The purchase and maintenance of a new income tax system is estimated at $145,000 (see **R3.20**). Furthermore, given the magnitude of the deficiencies in the current income tax operations, the City will likely require additional investigators and possibly seasonal help, on a short term basis, to identify all potential taxpayers and up-date income tax records. Additional implementation costs associated with preparing and furnishing adequate office space for the department and hiring short term employees cannot be reasonably estimated, but could be significant.

Contractual Issues

F3.18 A contractual agreement exists between the City and the Youngstown City Professional, Technical and Clerical Employees, Local 2312, the American Federation of State, County and Municipal Employees (AFSCME), effective July 1, 1996 to June 30, 1999, which establishes rates of pay, hours of work and other conditions of employment. Income tax department personnel are members of local 2312 with the exception of the tax commissioner, whose position is listed as supervisory and is prohibited from engaging in collective bargaining procedures or grievance procedures.

F3.19 The contractual agreement states that a job abolishment is construed to be a layoff. When the City determines a reduction in the working force is necessary, employees are laid off in the following order on the basis of city-wide seniority within their unit:

- part-time, temporary, intermittent and seasonal employees
- full-time employees who have not completed their probationary periods
- full-time employees who have completed their probationary periods

An employee who is laid off may bump another employee with less seniority in an equal or lower rated classification within the same unit. Any employee bumping within his/her unit is limited to a total of two bumps. All regular full-time employees are given a minimum of five working days advance notice of layoff or job abolishment, indicating the circumstances or reorganization which make the layoff necessary. This contractual provision may be applicable if the City considers alternative billing and collecting options discussed in the external income tax management services segment of this report.

F3.20 If substantial changes in the method of operation, tools or equipment of a job occur, or if a new job is established which has not previously been classified, the City shall meet with the union for the purpose of negotiating a rate of pay and classification or place the job in an existing classification. This contractual provision may be applicable if the City considers alternative billing and collecting options discussed in the external income tax management services segment of this report.

F3.21 The City has job descriptions on file for all income tax department positions. However, the existing job descriptions which were provided are outdated (the most recent update occurring in 1983) and lack legal detail (see the **human resources** section for complete details).

R3.7 Job descriptions for all income tax positions should be updated either internally or by a professional management consulting firm (see the **human resources** section).

Policy - Legislation Governing Municipal Income Tax - Ohio Revised Code Section 718 and Youngstown City Administrative Code, Section 181, Income Tax

F3.22 The City's municipal income tax ordinance levies a tax on the following sources of income:

- Salaries, wages, commissions and other compensation earned by residents of the City
- Salaries, wages, commissions and other compensation earned by non-residents of the City for work done or services performed or rendered in the City
- Net profits earned on all resident unincorporated businesses, professions or other activities derived from sales made, work done or services performed or rendered and business or other activities conducted in the City
- Net profits earned on all nonresident unincorporated businesses, professions or other activities derived from sales made, work done or services performed or rendered and businesses or other activities conducted in the City, whether or not such unincorporated business has an office or place of business in the City
- Net profits earned by all corporations doing business in the City as the result of work done or services performed or rendered in the City

As a result of comparing the City's sources of income subject to municipal income tax with those sources of taxable income for the three peer cities and the outside collections agencies, the above sources of taxable income are generally consistent with the policies of the other cities reviewed.

F3.23 Ohio Revised Code Section 718.01(C) states that no municipal corporation shall levy a tax on income at a rate in excess of one percent without having obtained the approval of the excess by a majority of the electors of the municipality voting on the question at a general, primary or special election. The City complied with this requirement for each of the increases in the municipal income tax in excess of one percent presented in **Table 3-1**.

F3.24 The City is one of nine municipalities in the 23 member Tri-County Tax Association (TRICOTA) which require monthly filing of income tax withholdings. In addition, the City of Youngstown and the City of Canfield require employers to file and remit taxes to their respective cities if $100 or more in taxes is withheld each month, which is the lowest monthly minimum threshold requirement among the tri-county municipalities.

Section 181.06 of the income tax rules and regulations states that each employer within or doing business within the City shall deduct at the time of the payment of such salary, wage, commission or other compensation, the tax of 2.25 percent of the gross salaries, wages, commissions or other compensation due by the said employer for said employee. On or before the last day of the month following the close of each calendar quarter, a return is to be made and the amount of taxes deducted paid to the City.

Employers who deduct the tax in the amount of $100 or more in the first or second month of a calendar quarter are required to remit the amount of taxes deducted on or before the 20th day of the following month. Employers who deduct $100 or more in the third month of a calendar quarter are required to remit the taxes deducted on or before the last day of the following month. Employers who withhold less than $100 in tax per month must file quarterly.

C3.1 Youngstown's requirement for the monthly filing of income tax withholdings, in conjunction with the $100 threshold requirement for monthly reporting, improves the City's cash flow.

F3.25 Approximately 24 percent of the employer withholding accounts paid on a quarterly basis do not appear to be complying with the City's withholding tax code provisions. Of the 2,992 active employer withholding accounts as of December 31, 1998, there are 1,019 monthly employer withholding accounts and 1,973 quarterly employer withholding accounts. An analysis of the 1,973 quarterly accounts was performed and it was determined that 467 (24 percent) of the accounts averaged employee withholdings of more than $100 per month. In accordance with Section 181.06 of the income tax rules and regulations, employers who deduct tax in the amount of $100 or more in the first or second month of a calendar quarter are required to remit the amount of taxes deducted on a monthly basis.

R3.8 The income tax department should take actions to bring those employers who are not complying with the withholding provisions of Section 181.06 of the income tax rules and regulations into compliance. Due to the significance of income tax revenues collected through employer withholdings, the management and staff of the income tax department should be cognizant of the employer filing requirements and closely monitor adherence to the provisions of the code.

The monitoring and enforcing of administrative code section 181.06 by the income tax department is crucial to provide consistent and timely cash flow to the City. Maximizing cash flow is especially important given the City's recent financial difficulties. On average, a total of $121,600 in additional employer withholdings could be collected on a monthly basis, as opposed to the collection of the withholdings of $364,800 on a quarterly basis. The monthly remittance requirement also provides the City with the opportunity to increase interest earned.

Financial Implication: Assuming an interest rate of 6 percent and that interest is compounded at the end of the appropriate period (monthly versus quarterly), the additional interest income that could be realized annually by collecting on a monthly basis is about $7,600.

R3.9 Because employer withholdings make up 89 percent of total collections, the City may consider the implementation of a "tax express" file by phone system for filing and paying income tax withholdings. The system would significantly reduce paperwork for both the City and the employers by eliminating the need to generate, complete and mail monthly or quarterly withholding statements. The system can be easily established through the City's phone system with the addition of a dedicated touch tone phone line and provides additional convenience to employers. Each user is assigned a secret and unique identification code, with taxpayers accessing the system by utilizing this number and entering the following information:

- Unique identification number
- Tax payment amount
- Number of employees
- City account number
- Tax period end date
- Effective date for transfer of payment

The City of Springfield utilizes such a system and has a participation rate of 47 percent of all withholding accounts.

F3.26 Section 181.15 establishes a credit for tax paid to another municipality for any person who resides or is domiciled in the City and who receives net profits, salaries, wages, commissions or other compensation for work done, services performed or business transacted outside the City. Youngstown's policy is consistent with 18 of the other 22 municipalities in TRICOTA which allow a 100 percent credit for taxes paid to another city. Two municipalities allow a 50 percent credit and two municipalities allow one-half of one percent credit for taxes paid to another city. Also, two of the three peer cities allow a 100 percent credit for taxes paid to another city. The remaining peer, Springfield, allows a 50 percent credit up to a maximum of one percent for taxes paid to other municipalities.

Upon the receipt of satisfactory evidence that income tax has been paid to another city, a credit for the amount paid, not to exceed 100 percent of the amount of tax which would be assessed (2.25 percent) by the City, is granted. However, the City does not have adequate procedures in place to properly enforce the established income tax rate. As **F3.3** indicates, the City has lost an estimated $2.0 million in income tax revenue since the current 2.25 percent rate was adopted in November 1996. Failure to properly monitor and enforce the income tax credit policy was probably a contributing factor to the lost revenue.

F3.27 According to the tax commissioner, the City does not consider winnings from lotteries and wagering as taxable income. A review of the 23 cities in the TRICOTA indicates that 20 of the 23 TRICOTA municipalities include winnings from lotteries and wagering taxable

income in the calculation of income tax due. As determined in Fisher vs. Neusser, 74 Ohio St.3d 506 (1996), lottery winnings are not "intangible income," and therefore, municipal corporations are not precluded from levying an income tax.

R3.10 The City should reevaluate the practice of not including winnings from lotteries and wagering in the calculation of taxable income for purposes of collecting city income tax. Although it is not possible to calculate the amount of revenue lost as a result of this practice, the fact that 20 of the 23 cities in TRICOTA include such winnings as taxable income indicates that it is common practice among cities and could financially benefit the City.

F3.28 Section 181.13 provides for the establishment of a Board of Review to consist of three electors of the City. However, the City has not established a Board of Review. The mayor is to appoint one elector for a period of three years, Council is to appoint one elector for a period of two years and the third member is to be selected by the two appointed members for a period of one year. The Board is to elect its own officers, is required to adopt its own procedural rules and is to keep a record of its transactions. All rules, regulations, amendments or changes to the income tax administrative code, Chapter 181, which are adopted by the Director of Finance must be approved by the Board of Review before they become effective. In addition, any person dissatisfied with any ruling of the director of finance may appeal to the Board of Review within 30 days from the announcement of such a ruling or decision. The Board of Review has jurisdiction to affirm, reverse or modify any ruling or decision.

R3.11 The City should immediately establish a Board of Review, as provided in Section 181.13. The establishment of this board is critically important given the significance of current operational and management deficiencies, as reflected in many of the statistics in **Table 3-4**, and the magnitude of needed reform. The City should establish the board regardless of whether income tax operations are maintained in-house or contracted. The board should be pro-active regarding the operations of the income tax department, strongly encouraging adherence to the income tax code and the development of policies and procedures needed to enhance operations. Involvement by the board is also needed to provide guidance in the assessment and collection of interest and penalties on delinquent accounts and the write-off of uncollectible accounts (see **F3.43** and **F3.45** for details). This board would also provide taxpayers an appropriate city income tax appeal process.

Operations Management

F3.29 To effectively collect income tax, the City should use all available resources to identify taxpayers. The identification of taxpayers is an important activity because it represents the initial step in establishing tax liability and potential income tax revenue. Income tax returns

are filed by only 19 percent of Youngstown's population. The percentage of the population filing returns in the peer cities of Canton, Lorain and Springfield are 42 percent, 36 percent and 52 percent, respectively. Youngstown's relatively low percentage of returns filed would indicate that the income tax division does not effectively perform analyses or track information to assist in locating all potential tax revenues. The City is not utilizing all available resources for locating residents and individuals working within City limits. The following list includes activities which can be effective tools in locating non-filers:

- Review of Ohio Department of Taxation taxpayer filing lists
- Review of City building and occupancy permits issued
- Review of real estate transfers
- Comparison of post office address corrections and move outs with taxpayer lists
- Review of lead source publications for businesses
- Comparison of City directory with taxpayer lists
- Use of apartment registration programs (canvassing) to identify new occupants
- Use of business canvassing programs to identify new startups
- Comparison of contractors required submission of sub-contractors with business taxpayer lists
- Review of known out-of-town consultants who conduct business in the City
- Comparison of utility accounts with taxpayer lists
- Comparison of vendor's license reports with taxpayer lists

R3.12 The City should be incorporating the activities discussed above as part of the day-to-day attempts to locate non-filers. These procedures could likely identify a significant number of new accounts and could result in increased revenues for the City. In addition, City departments should work together and improve communications to identify key elements and results that need to be tracked and communicated which would assist the income tax department in identifying potential taxpayers. The financial implication associated with this recommendation is considered to be incorporated in the amount of potential additional income tax revenue noted in **F3.5** and **R3.1**.

F3.30 The City's tax commissioner does not request and obtain the Ohio Department of Taxation's individual master file tax data exchange information for purposes of identifying individuals and businesses who may be subject to municipal income tax but are not filing. Pursuant to Ohio Revised Code Section 5747.18(C), the tax commissioner of the Ohio Department of Taxation may furnish the officer of a municipal corporation charged with the duty of enforcing the income tax, as authorized by Chapter 718 of the Code, with the names, addresses and identification numbers of individuals who may be subject to the municipal income tax. The information is to be used for tax administration purposes only and must be adequately safeguarded for the preservation of confidentiality. Requests for tax data must be filed with the Ohio Department of Taxation, Information Services

Division, no later than the end of September each year. Tax information for the previous tax year is provided to the requesting municipalities by December 15th of each year.

The early 1980's was the last time the state tapes were utilized by the department. The tax commissioner stated that he felt the process is too time consuming, requires additional staffing that is not currently available and that the results are not worth the efforts required. Additional inquiries of the YCS director indicated that the processing of the state tapes was performed several years ago and can be performed by the current computer system. In addition, a scan of zip codes can be performed on a personal computer to eliminate zip codes for areas that are not included within the City limits.

Based on State Department of Taxation information, there were 30,657 individual state income tax returns filed for tax year 1996 by residences of the Youngstown City School District. As the boundaries of the school district are similar to those of the City, it is reasonable to assume a similar number of City income tax returns should have been filed for the same period. However, income tax department records show only 16,370 City income tax returns being filed for tax year 1996. The significant differences in these two numbers is a further indication that the City is not identifying all potential taxpayers.

R3.13 A request to the Ohio Department of Taxation should be submitted each year by the City to obtain the names, addresses and identification numbers of individuals who may be subject to the City's municipal income tax. This information list should be compared with the City's taxpayer list to help identify city income tax non-filers. This comparison should be in addition to the activities discussed in **R3.12**. The identification of non-filers could provide opportunities to increase the City's income tax revenue.

Financial Implication: The cost of the tax information from the State of Ohio is between $750 and $1,500, depending on the data format requested. This cost would be offset by the additional income tax revenue generated. This additional revenue is considered to be incorporated in the amount of potential additional income tax revenue noted in **F3.5** and **R3.1**.

F3.31 Section 181.05 requires each taxpayer to make and file a return on or before April 15 of each tax year, whether or not a tax is due thereon and whether or not taxes have been deducted or withheld from the taxpayer. When the return is made for a fiscal year or other period different from the calendar year, the return is to be filed within 105 days from the end of the fiscal year or period.

The requirements for mandatory filing are as follows:

- All Youngstown, Ohio residents who are either employed within the City, or who are employed outside the City or who conduct a business operation within the City or outside the City are required to file an annual tax return with the City income tax department.
- All non-resident businesses who have a business operation within the City or non-resident taxpayers who have been employed within the City and receive some type of compensation, where no city income tax is withheld, are required to file an annual tax return with the City income tax department.

Enforcement of the mandatory filing of city income tax acknowledges taxpayer obligations, establishes taxpayer liability and helps identify potential additional income tax revenue.

Immediately following the passage of city income tax ordinance #65905, dated November 16, 1977, requiring mandatory filing, a letter was sent to all "Youngstown Resident Taxpayers" notifying them of this requirement. As of June 1999, there has been no further correspondence with City residents and/or businesses which communicates this mandatory filing requirement and related information. As shown in **Table 3-4**, the percent of Youngstown's population that file income tax returns is only 19 percent. A filing notice issued under one of the previous tax commissioners states individuals with no taxable income are not required to file. However, this filing notice is inconsistent with the City's income tax ordinance.

Table 3-17 reflects the number of annual income tax returns, Forms IR-Individuals, BR-Partnerships and CR-Corporations, mailed by the City's income tax department for the years ending December 31 of the respective years shown. A continuing decline in the number of annual income tax returns mailed by the City is evidenced in the table below.

Table 3-17: Trend Analysis of the Annual Tax Returns Mailed Years 1985 through 1998

Year Ending 12/31	Number of Returns Mailed	Percentage of Increase/Decrease
1985	26,367	N/A
1986	24,639	-6.50%
1987	25,303	2.60%
1988	24,514	-3.10%
1989	23,325	-4.90%
1990	22,250	-4.60%
1991	21,567	-3.10%
1992	21,439	-0.60%
1993	20,470	-4.5%
1994	19,760	-3.5%
1995	19,307	-2.3%
1996	19,017	-1.5%
1997	18,732	-1.5%
1998	18,499	-1.2%

Source: Per statement of mailing, United States Post Office

R3.14 The City should begin immediate development of registration forms for Youngstown residents and businesses and non-resident individuals and prepare a mass mailing utilizing the most current master address listings available. The number of income tax returns distributed to taxpayers annually has declined drastically over the past several years. Enforcement of the mandatory filing requirement by the City would greatly enhance the potential for increasing the taxpayer base. The financial implication associated with this recommendation is considered to be incorporated in the amount of potential additional income tax revenue noted in **F3.5** and **R3.1**. In addition, the City should comply with the provisions of the income tax ordinance and ensure that notice is provided to all residents stating that an annual tax return is required, whether or not a tax is due.

F3.32 The income tax department does not have a process in place to determine when and if estimated taxes are filed. Section 181.07 states that every person who anticipates any taxable income which is not subject to Section 181.06, or who engages in any business, profession, enterprise or activity subject to the income tax imposed is required to file a declaration setting forth such estimated income or the estimated profit or loss from such

business activity, together with the estimated tax due on or before April 15 of each year or within 105 days of the date the taxpayer becomes subject to tax for the first time.

Declaration of estimated tax is to be accompanied by payment of at least one-fourth of the estimated annual tax and at least a similar amount is to be paid on or before the 15th day of the sixth, ninth and twelfth months after the beginning of the taxable year. On or before the 15th day of the fourth month of the year following the taxable year, an annual return must be filed and any balance which is due the City must be paid.

Estimated taxes represent an important category of tax revenue for the City of Youngstown. Those individuals who reside in the City but work outside of the City have a potential tax liability. For example, the neighboring cities of Hubbard (1.0 percent), Canfield (1.0 percent) and Niles (1.5 percent) all have income tax rates less than Youngstown's 2.25 percent. Therefore, residents who work in these cities owe taxes on the percentage difference in tax rates, which ranges from 0.75 to 1.25 percent. Because the City of Youngstown does not currently monitor and track residents who work outside of Youngstown, it could be losing a significant amount of income tax revenue from these sources.

R3.15 The income tax department should develop a process to monitor the timely filing of estimated income taxes and to determine if taxpayers are complying with Section 181.07 of the City's administrative code. New income tax software, such as that recommended in **R3.20**, could provide the functionality needed to assist in this monitoring process. The lack of a formal monitoring and follow-up process may allow persons who are required to file estimated tax quarterly to only file and remit taxes annually without penalty or interest being assessed. In addition, monitoring and enforcing the timely payment of estimated taxes could improve the City's cash flow. Improving cash flow is important given the City's current financial condition. The financial implication associated with this recommendation is considered to be incorporated in the amount of potential additional income tax revenue noted in **F3.5** and **R3.1**.

F3.33 The City does not have formal procedures in place to identify opportunities for increasing income tax revenues from rental activities. Section 181.03(d) of the Youngstown City administrative code states that rental income received by a taxpayer is to be included in the computation of net profits from business activities if and to the extent that the rental, ownership, management or operations of the real estate from which such rentals are derived constitutes a business activity of the taxpayer in whole or in part. In addition, Ordinance 99-30 was passed by City council January 27, 1999, which requires that the owner of any dwelling, dwelling unit, rooming unit or premises shall not rent such dwelling, dwelling unit, rooming unit or premises without obtaining a rental license from the City.

R3.16 The City needs to implement procedures which will provide opportunities to increase the revenue collected from potential taxpayers of municipal income tax. For example, a list of rental licenses could be used to check against submitted tax returns to ensure that taxpayers with rental property are properly reporting rental income on their tax returns. In addition, the City should consider amending Ordinance 99-30 to require owners of rental properties to provide the names and addresses of tenants on a periodic basis to the City. The information could be used by the income tax department to determine whether potential taxpayers are registered with the department. The financial implication associated with this recommendation is considered to be incorporated in the amount of potential additional income tax revenue noted in **F3.5** and **R3.1**.

F3.34 The City's income tax software does not have the capability to process refunds of income tax collected. Currently, the cashier processes the income tax refunds on a personal computer and prints the checks, which are signed by the finance director. The 1099's are also generated using the refund information on personal computer. **Table 3-18** presents the amount of refunds issued by the income tax department over the past three calendar years, the amount paid out in refunds through May 1999 and the percent change for the years 1995 through 1998.

Table 3-18: Refund Payments Issued

	1994	1995	1996	1997	1998	Jan-May 1999
Total Refunds Issued	$684,194	$686,188	$721,659	$905,454	$1,132,428	$765,732
Percent Change		0.3%	5.2%	25.5%	25.1%	

Source: Income tax department

The percent change in refund payments presented in the table above shows a significant increase in the amount of refunds paid in 1997 and 1998. In addition, the refund amount paid for the period between January and May of 1999 indicates another potential increase in refund activity from 1998. Although refund activity is increasing, the income tax department does not monitor or review refund activity. In addition, the refund payments as a percentage of gross collections for Youngstown are 3.6 percent compared with the percentages of the peer cities of Canton, Lorain and Springfield of 2.8 percent, 3.0 percent and 2.3 percent, respectively. This relatively high percentage of refunds to gross collections could be a result of the City's lack of refund monitoring and review.

R3.17 The City should process refunds of income tax collected through the new income tax system recommended in **R3.20**. Additional monitoring and analysis should also be performed to ensure that refunds are not overpaid. For example, a high level review of the quantity and amount of refunds should be compared with previous years for reasonableness. In addition, a method to select a sample of high dollar refunds for audit should be implemented. The financial implication associated with this recommendation is considered to be incorporated in the amount of potential additional income tax revenue noted in **F3.5** and **R3.1**.

F3.35 An analysis of the City's income tax calendar regarding due dates for filing returns, remitting taxes and performing other income tax activities indicates that operations are seasonal in nature and the workload of the income tax department is variable. The greatest volume of work occurs during the income tax season in the months of January through April. The duties of the income tax commissioner include planning, organizing and directing the programs and activities of the City income tax department including the supervision of auditing, collecting and accounting functions. A crucial aspect of managing the department and its personnel is maintaining a comprehensive calendar of all tax related taxpayer and employer mailings, tax return filings, remitting and reporting due dates and formally communicating these dates to departmental personnel.

In addition to maintaining a tax calendar, numerous other important functions performed by the department should be included on a monthly calendar to provide personnel with a structured schedule and time frame for completion of the departmental workload each month. The following list highlights several significant functions which are not included in the City's current tax calendar:

- Prepare and mail monthly and quarterly tax returns
- Prepare and mail annual tax returns
- Balance and close month-end
- Prepare and distribute monthly management reports
- Review delinquent account listing
- Submit delinquent accounts to collection agent
- Run and mail failure to pay notices
- Run and mail failure to file notices
- Obtain informational data from City departments
- Schedule departmental meetings and training sessions

R3.18 The City should maintain a comprehensive calendar of all tax related filing, remitting, corresponding and reporting due dates that are crucial in creating an efficient and effective income tax operation. The calendar functions listed above should also be included. These dates should be formally communicated to departmental personnel to set the framework for planning and organizing each work day, week and month. The calendar can also be used

as a tool for both supervisors and departmental personnel in scheduling employee leave and determining the need for temporary employees during peak work times (see **R3.3, R3.4**).

The City should also prioritize the daily work during the tax season (January through April) to maximize efforts and enhance operations. The following list includes examples of the daily tasks that should be prioritized:

- **!** Opening, processing, depositing and entering current mail and payments received.
- **!** Auditing of tax returns, including subsequent correspondence to taxpayers. Auditing tax returns prior to entry eliminates the need to do a corrected or amended return in the system.
- **!** Filing of all documents.

During the off-season (May through December), the department should focus on the following:

- **!** Completing the reconciliation of withholding accounts
- **!** Collecting delinquent accounts
- **!** Contacting and collecting from non-filers
- **!** Locating new taxpayers

Each month's schedule should include functions and duties specific to that particular month based on the tax return filing, remittance and reporting due dates.

F3.36 The income tax department has no formal written procedures or checklists for the review or processing of income tax returns. The majority of tax revenues and returns are received by mail and processed as follows:

- **!** Mail is picked up by the tax commissioner and is opened by either the tax commissioner or another staff member
- **!** Checks are sorted by type of payment and stamped "received" and dated
- **!** Tax commissioner prepares calculator tape for checks and for returns
- **!** Remittances are stamped paid
- **!** Daily cash report is manually prepared by tax commissioner
- **!** Summary of receipts by code is completed by tax commissioner and forwarded to cashier along with remittances and calculator tapes
- **!** Deposit slip is prepared by tax commissioner and given to cashier for deposit
- **!** Cashier inputs receipts by account number
- **!** Batch number and security code generated by system for use if adjustments are necessary
- **!** Daily transaction audit report is generated and balanced to calculator tapes

- ! Daily transaction audit update is performed
- ! Pay-in is received from finance department
- ! Batch records, calculator tapes and pay-in are filed by date

Due to the limited staffing of the income tax department, the staff and the tax commissioner primarily perform clerical functions, as is evidenced by the duties outlined above. For example, the responsibilities of the tax commissioner include involvement in the sorting of checks, the tabulating of daily deposits and recording and summarizing the daily receipts. During the walk-through and observation of the daily receipting and return processing procedures, it was noted that the income tax system can not verify the mathematical accuracy of the returns.

R3.19 The income tax department should develop a procedure manual or checklist to ensure the proper review of data on income tax returns. The manual or checklist should include the procedures listed above. In addition, steps should include a process to check for the submission of proper tax forms, supplemental documentation and appropriate signatures. Discrepancies could be flagged and the respective returns held for audit. The implementation of a new income tax software (see **R3.20**) could also improve the efficiency of the income tax department by automatically performing some of the audit functions mentioned in the finding above such as verifying the mathematical accuracy of returns.

F3.37 A management letter was issued as the result of the audit of the December 31, 1997 financial statements which contained a comment addressing the delinquent income tax accounts. A recommendation was included which suggested the City adopt a formal policy regarding collections procedures for delinquent income tax accounts and consider the associated costs versus the benefits of hiring additional income tax investigators (see **R3.25**). The letter further suggested the City consider the feasibility of running a computer cross check of utility accounts with income tax accounts to identify individuals and/or businesses who are not paying city income taxes (see **F3.29** and **R3.12**).

Income Tax Software

F3.38 The income tax system currently in use by the income tax department was originally developed in-house by Youngstown's computer services (YCS) department in 1976. The system has subsequently been modified and has evolved into the system currently being utilized. According to the director of YCS, the income tax software is not Year 2000 compliant due to delays in scheduling created by the tax season. Testing is scheduled to be completed by September 1999. In addition, the income tax system does not interface with the City's accounting system and as a result, daily income tax collections are posted to the City's financial records by means of adjusting journal entries.

F3.39 The director of YCS is responsible for daily, weekly, monthly and annual maintenance of the income tax system. Backups, purges and file rebuilds and restores are performed as needed by YCS. In addition to system and file maintenance, YCS prints all reports generated by the income tax system upon request from the personnel in the income tax department. Reports include the following:

- Daily "audit" of income tax entries by batch
- Daily "update" of income tax entries by batch
- Daily cash report
- Trial balance listing
- Quarterly analysis of withholdings
- Various delinquent reports
- Yearly summary report of accounts by type
- Alpha listing from master file

In addition, YCS is responsible for printing labels and all monthly, quarterly and yearly preprinted tax forms and returns with taxpayer name, address and applicable tax period as requested by the income tax department.

F3.40 On a daily basis, the income tax cashier performs data entry of tax return collection information. Upon request, the YCS generates an "audit" list of the data which is entered by batch. The cashier reviews the audit report for error messages such as "no master record" and transaction code totals are compared with batch control totals. Any errors are resolved and reconciled by the cashier and YCS is requested to run an "update," which results in the data entry information being posted to the appropriate accounts within the system.

F3.41 As a result of interviews with income tax department personnel, observation of personnel utilizing the system and discussions with the finance director and the director of YCS, the income tax staff appear to have a very limited knowledge of the income tax system. Only two of the four income tax department personnel perform data entry. In addition, the use of the income tax system by income tax staff is basically limited to three screens. The tax commissioner provided a "print screen" of each inquiry used by the department. The following information is accessible to income tax personnel by account number:

- Taxpayer master file which includes account number, name, address, federal identification number, type of return code, status of account and active or inactive dates
- Employer withholding record which includes account name, number, address, federal identification number, year, Q-1 amount, payment history and balance
- Year to date transaction list beginning 01/01/85 which includes account number,

name, transaction code, date and amount of transaction, benefit month and/or quarter and year

F3.42 The income tax system currently being utilized lacks basic functionality in several areas, creating deficiencies which adversely affect the operations of the income tax department. The existing system is not a comprehensive income tax management system. The following deficiencies were noted during this audit:

- **!** Delinquent account collection functions do not include automatic follow-up on no response delinquents or payment plan set-up and tracking.
- **!** Delinquent tax collections do not have a unique account code to differentiate them from regular income tax collections, which would be useful in monitoring and tracking delinquent tax payments.
- **!** The system lacks the ability to calculate and post monthly penalty and interest charges on delinquent accounts resulting in possible lost revenue to the City.
- **!** Taxpayer refunds cannot be processed on the current system. The refund process should be interfaced with the tax system to ensure that the processing of returns is complete and accurately reflected in the accounts. Refunds are currently processed on a personal computer (see **F3.34** and **R3.17**).
- **!** The system lacks easy accessibility to ALL data from the transaction screens.
- **!** The system lacks the ability to flag accounts for auditing.
- **!** The system lacks the ability to track rental property.
- **!** The system does not track estimated tax payments or taxpayers.

R3.20 In response to the deficiencies noted above and in **F3.34**, and as a result of the inefficiency and ineffectiveness of the overall operations of the income tax department discussed throughout this report, significant changes to the operations of the department are necessary, including the implementation of new income tax software. An assessment of the compatibility with the City's accounting system must be considered in selecting a new income tax software package.

According to the computer services director, the system could be enhanced with additional programming. However, the City has only one programmer available to modify all major in-house systems except for the water department systems (see the **technology utilization** section of this report). Although the current income tax system could be enhanced in-house after it is made Year 2000 compliant, given the staffing level in the computer services department, it is somewhat questionable whether the City would be able to support such significant enhancements to the current system.

The peer cities of Canton and Springfield are both currently in the process of implementing new income tax software. During the audit, both Canton and Springfield's systems were

reviewed and were found to have features which would greatly enhance the operations of Youngstown's income tax department. The following should be considered by the City when selecting a new income tax software package:

- Easy accessibility to ALL data from transaction screens
- Audit flagging and user-defined account types
- Letter logging and printing and label printing
- Rental property tracking
- Automatic follow-up on no response delinquents and payment plan tracking
- Delinquent letter generation, delinquent reporting and monthly penalty and interest posting

In addition, a new income tax system should be designed to perform the following functionalities:

- Generate specialized reports including new accounts reports, daily balancing and audit reports, largest taxpayers reports, delinquency reports, tax master status reports, refund reports and W-2 reports
- Generate specialized preprinted forms including mailing labels, withholding returns, business returns, individual returns, net profit statements and 1099 forms
- Perform specialized functions including
  - 1099 IRS tape generation
  - reconciliation of withholdings reported monthly and/or quarterly to the employers' annual withholding return
  - generation of a record of taxpayer account master file changes

The lack of a comprehensive income tax system requires both the tax department and YCS to spend time creating and updating reports on an as needed basis. In addition to the features and reporting above, additional capabilities the City should consider when selecting a new software package include lookup by address, keyword or federal identification number; user friendly menu driven input prompts; flexible report writer and utility address match-up. Implementation of a new system could minimize the need for the YCS to be involved in the day-to-day operations of the income tax department, such as the running of daily audits and updates.

Prior to any final decision by the City in regard to the purchase and implementation of an income tax software package and necessary hardware, assurances should be obtained from the tax commissioner and departmental staff that they would be willing to participate in training which would provide the necessary skills for full utilization of any new income tax software implemented. In addition, the solution that is chosen should conform with the overall strategic technology plan of the City, as discussed in the **technology utilization** section.

In addition to the considerations stated above in regard to a decision on the purchase of new income tax software, the possibility of the City contracting out income tax functions should be assessed, as the contractor would supply the system, thereby eliminating the need for the City to buy one. See the *External Income Tax Management Services* subsection for additional information on contracting options.

Financial Implication: The costs involved in the purchase and implementation of a new income tax system could be offset by an improved ability to generate additional income tax revenue. The estimated one-time cost for a new income tax system for the City is approximately $145,000 and includes the following items or services:

- Tax software application
- Document imaging system
- NT server
- General system customization services
- Conversion services
- User training

In addition, system maintenance costs would be approximately $6,000 per year. Based on discussions with one potential vendor and the City of Springfield, the implementation cost of $145,000 is comprehensive.

Internal Delinquent Accounts Collection Efforts

F3.43 The City's income tax department does not have formal procedures in place for the review and management of delinquent tax accounts. Accounts in excess of $1 are considered delinquent immediately following the filing due date. As of the December 31, 1998 delinquent accounts report, there were 5,772 outstanding delinquencies out of approximately 21,000 accounts, or more than a 27 percent delinquency rate. The number of outstanding delinquencies for 1998 has increased significantly from 2,099 in December 1997 and 1,188 in December 1996.

A "delinquency notice" is sent out for all delinquent accounts. Delinquency notices are sent out after October 15th for non-filings or where additional amounts are owed and instruct taxpayers to call an investigator upon receipt of the notice. If no response is received from the notice, the account may be referred to the collection agency (see **F3.47** for discussion of external accounts collection efforts). Copies of the income tax returns from responses to delinquency notices and returns needing to be followed up on are tracked manually by the investigator. No schedule has been established by the department to manage delinquent tax accounts. The lack of proper monitoring and management of delinquent accounts is reflected in the low amount of penalty and interest collected by the City. For 1998, the City

of Youngstown collected less than $25,000 in penalty and interest compared to a peer city average of over $227,000 (see **Table 3-4**). Adequate information regarding outstanding penalties and interest amounts owed is not maintained by the income tax department.

R3.21 The City should implement procedures to improve review and management of delinquent income tax accounts. A schedule should be established to provide for consistent and timely efforts by the department to identify and track delinquent tax accounts, including the failure to pay accounts and the failure to file accounts. (See **R3.18** for a discussion of a comprehensive tax calendar). The following procedures are also necessary to provide for better management of delinquent accounts:

- **!** Report of delinquent accounts generated and reviewed at least monthly
- **!** Delinquent notices mailed to failure to pay and failure to file accounts monthly
- **!** Timely follow-up steps established
- **!** Penalty and interest charges assessed
- **!** In addition, delinquent notices should be modified to indicate amounts past due plus any penalty and interest charges applicable

Improved management of delinquent accounts could generate additional revenue from penalties and interest. The financial implication associated with this recommendation is considered to be incorporated in the amount of potential additional income tax revenue noted in **F3.5** and **R3.1**.

F3.44 Although delinquent tax accounts that had special payment plan arrangements agreed to by the tax commissioner were noted, the City has no formal criteria adopted to provide for uniform processing of requests for such payment plans.

R3.22 The income tax department, in conjunction with the finance director, should establish criteria to be used in making determinations of such requests. Although each situation should be reviewed individually, the City may consider the following criteria:

- **!** Situations must have occurred recently enough to currently impact the individual's economic situation and create an immediate need for a payment plan
- **!** Significant lapse in employment resulting in decreased income level
- **!** Loss of job/employment or spouse's job/employment
- **!** Health emergency for self/family member which resulted in a loss or reduction of income and increased medical expense not covered by insurance
- **!** Similar circumstances which have resulted in an unexpected lapse of employment or income

A payment plan should follow a regularly scheduled payment arrangement, either weekly, biweekly or monthly, depending upon receipt of income and frequency of income. A lapse in payments should result in the account falling into delinquent status. The length of the payment plan and the amount of payments should be dependent upon the total due and current income level.

In order to verify information received, the tax commissioner should consider requiring the following information when the request is submitted:

- Copies of current pay stubs
- Name, address and phone number of employer
- Copies of medical bills and insurance forms to verify medical expenses

F3.45 The City does not have formal procedures for the write-off of delinquent income tax accounts. For example, the income tax commissioner does not maintain a log of accounts written off or documentation on the reasons why the write-offs were necessary. The lack of a formal procedure could allow for the inappropriate write-off of accounts that may be collectable.

R3.23 The City should develop formal procedures for the write-off of delinquent income tax accounts. The income tax department should maintain a log of the accounts written off which should include pertinent taxpayer information and a total amount of taxes due (including penalties and interest). Other information supporting the write-off decision should be maintained in files. In addition, the income tax department should provide a monthly report to City council summarizing the income tax accounts written off during the month.

F3.46 Delinquent income tax collections remitted to the City from the outside collection agency for the period July 1997 through December 1997 were not deposited by the income tax department until calendar year 1998. The tax commissioner stated this was the result of the field auditor being off for six months due to an injury.

R3.24 The income tax department should review any internal controls established pertaining to the processing of receipts and ensure that employees are informed as to the proper handling of receipts. All receipts should be deposited with the appropriate cashier on a daily basis. The improper handling of receipts can negatively affect the City's cash flow position and cause delays in the proper recording and reporting of revenues. In addition, the automatic voiding of the check may be caused by deposit delays greater than the stale date of the check.

External Delinquent Accounts Collection Efforts

F3.47 By authorization of City ordinance, the board of control contracts with a professional collection service for the collection of the City's delinquent accounts including income tax, demolition charges, water and wastewater billings, weed cutting charges and miscellaneous receivables. Millstone and Kannensohn provides legal and professional collection services to the City for the contingent fee of 21 percent of each dollar paid to the City as a result of the agency's efforts. The contract is awarded every three years based on the lowest bid.

Table 3-19 presents the total amount of delinquent income tax accounts submitted to the collection agency during the past three years, the amounts collected during those years, the percentage of accounts submitted which have been collected and the fees paid to the agency. The collection agency's three-year rate of collections averaged 39 percent of total accounts submitted.

Table 3-19: Collection Agency Delinquent Account Activity 1996 through 1998

Description	1996	1997	1998
Delinquent Accounts Submitted	$102,672	$42,644	$298,314
Delinquent Accounts Collected	$36,062	$30,693	$107,440
Percentage Collected	35%	72%	36%
Fees Paid to Agency	$7,573	$6,446	$22,562
Frequency of Accounts Submitted by City	June and November	January and April	March, May, June, August, November, December

Source: Collection Agency Summary Reports

F3.48 **Table 3-20** presents the status of the delinquent accounts for accounts submitted to the collection agency and those remaining on the delinquent listing of the City as of December 31, 1998.

Table 3-20: Collection Agency Accounts Outstanding as of 12/31/98

Description	City Income Tax Department	Collection Agency	Percent Held by the Collection Agency
Number of Delinquent Accounts	5,772	569	10%
Number of Failure to Pay Accounts	1,096	236	22%
Outstanding Balance	$264,891	$355,722	See Note
Number of Failure to File Accounts	4,676	333	7%

Source: Income tax department

Note: The amount of the outstanding balance at the collection agency is larger than that recorded in the City's income tax system because the collection agency automatically assigns an outstanding balance of $10,000 to delinquent accounts that are the result of non-filing versus an actual underpayment. The actual outstanding balance maintained by the collection agency cannot be determined due to a lack of adequate information.

Upon receipt of delinquent accounts information from the City, the collection agency sends a notice to the appropriate taxpayers notifying them that their accounts have been turned over to the agency for collection. Taxpayers are given 30 days to respond. If no response is received, a suit is filed and a summons to appear is issued. If the taxpayer does not appear, a judgement is made. At this point, the court can file liens against the taxpayers' property, execute a bank attachment or require an appearance in civil court.

F3.49 The City does not have formal processes for submitting delinquent accounts to the outside collection agency, nor are there formal processes in place for monitoring the collection agency's activities. To determine which delinquent accounts go to the collection agency for collection, the tax commissioner reviews a delinquent accounts listing generated on an as-needed basis by the YCS and judgementally selects the delinquent accounts with large outstanding balances.

The collection agency provides the tax commissioner with a breakdown of the accounts collected and the revenue generated by the collection activities. The collection agency does not provide the City with any management reports showing the percentage of accounts collected. The collection agency remits the total tax collections monthly to the City, along with remittance advices indicating the period the tax collected is applicable to. Delinquent tax revenues are posted as regular tax collections during the data entry process. Therefore, a report of delinquent tax collections cannot be generated to monitor the amounts collected and the balance of delinquent accounts (see the **technology utilization** section for a further discussion of systems improvements).

R3.25 The City should consider performing the majority of the delinquent income tax collection function in-house. The city-wide collections department recommended in the **revenue generation** section of this report would be expected to pursue the majority of the delinquent accounts that are relatively easy to collect. The auditors under the new income tax department organizational structure recommended in **R3.6** would pursue the other delinquent accounts. Only those delinquent accounts that are considered difficult to collect should be submitted to an outside collection agency. If the City does not create a city-wide collections department as recommended, the income tax department should increase the current staffing level to perform the collection function. Additionally, as discussed in **R3.21**, the City should generate and review a report of delinquent accounts on a monthly basis. Part of this review should be to determine which accounts should be sent to the collection agency.

In addition, the City should establish procedures to monitor the collection agency's activities. The following procedures should be considered to improve monitoring of the agency's handling of delinquent accounts:

- **!** Monitor delinquent accounts reports generated by the collection agency at least monthly
- **!** Maintain documentation of accounts submitted to the collection agency
- **!** Request management reports from the collection agency, such as a report indicating percentage of accounts collected and number of accounts outstanding.
- **!** Establish consistent policy for selection and submission of accounts to the collection agency, not just accounts with large balances

The additional revenue collected could potentially offset the salary requirements from the reorganization and staff increases recommended in **R3.6**.

External Income Tax Management Services

F3.50 As discussed throughout this report, there are a number of fundamental weaknesses in the systems, processes and organization of the income tax department. Some significant inefficiencies include the following:

- **!** Current staffing levels are low and the existing staff are performing primarily clerical functions
- **!** Activities to identify potential additional filers, the review and audit of returns and the proper tracking and managing of compliance with the City's tax policies are not being performed, primarily because of the current staffing levels
- **!** The current income tax system represents old technology and has limited functionality

As a result of these deficiencies, there is a very high risk that the City is foregoing potentially significant amounts of income tax revenue. Given the extent of the operational and financial challenges confronting the City, an option for the City is to contract for income tax management services. Through a better managed operation by an independent external provider, the City of Youngstown could achieve significantly increased income tax revenue.

There are a number of important considerations in assessing opportunities for external contracting of income tax management services. The following table lists some of the issues to be evaluated when determining the feasibility of contracting out income tax functions. The results of applying the assessment factors to the City's income tax operations are noted in italics.

Table 3-21: External Contracting Assessment

Is the volume of work associated with function/activity sufficient to justify external performance?	*Yes*
Are the management, oversight and control requirements associated with external performance of the functions excessive?	*No*
Is the function/activity too complex to be performed by external resources?	*No*
Is the performance of the function/activity regulated?	*No*
Are significant capital investments required in association with the internal performance of the function/activity?	*Yes*
Are high quality, external service providers available to perform the function/activity?	*Yes*
Is there a high probability that external performance of the function/activity would reduce quality and service levels?	*No*
Will the potential benefits of utilizing external resources likely offset/exceed the potential costs?	*Yes*
Potential Privatization Opportunity	**High**

Based on the results indicated above, it appears the City of Youngstown's income tax operations have a high potential to be contracted to an external provider of income tax management services. Several potential external providers are available who have a significant amount of experience in providing income tax management services to governmental units. An increase in income tax collections is one major area of improvement where their expertise and experience could provide positive results. Another major area is in the performance of activities to track and manage income tax collection activities that the City is not currently performing. Some of the services offered by the providers that could provide benefits to the City include the following:

- Review of Ohio Department of Taxation taxpayer filing lists
- Review of City building and occupancy permits issued
- Review of real estate transfers
- Comparison of post office address corrections and move outs with taxpayer lists
- Review of lead source publications for businesses
- Comparison of City directory with taxpayer lists
- Use of apartment registration programs (canvassing) to identify new occupants
- Use of business canvassing programs to identify new startups
- Comparison of contractors required submission of subcontractors with business taxpayer lists
- Review of known out-of-town consultants who conduct business in the City
- Comparison of utility accounts with taxpayer lists
- Comparison of vendors' license reports with taxpayer lists
- Audit of tax returns
- Use of an up-to-date, comprehensive income tax system

Based on discussions with representatives from several potential external providers, the cost for income tax management services is about 1.2 percent of net collections. In some instances, there may be a one-time fee of about $60,000 for start up activities. The percentage charged is based on proprietary formulas that take into consideration the number of transactions processed. In addition, representatives indicated that most member governmental units retain from one to several staff in the income tax department after contracting for services. These staff generally perform functions associated with identification of potential additional taxpayers and in-house collection of delinquent accounts. There do not appear to be standards on determining the appropriate number of staff to retain in-house.

Securing external income tax management services would provide many benefits to the City. However, the following lists several considerations City management should take into account regarding contracting for such services:

- There are no external providers that are currently available in the City of Youngstown.
- The City would most likely need to retain and pay for several individuals in the income tax department in addition to paying the external provider's fee.
- Income tax revenue collected is generally distributed by the external provider on a monthly basis. If the City wanted to negotiate for daily distribution because of cash flow necessities, the City would forego the interest posted to its account by the external provider. However, the potential additional increase in income tax revenue generated may eliminate the need for a daily cash flow.
- Communication links would have to be established and maintained between the City and the external provider.

- The City would need to manage and monitor the contract with the external provider to ensure quality services are being provided to the City and its filers.

If, for various reasons, the City of Youngstown decides to maintain income tax operations in-house, it must implement significant improvements immediately to minimize further loss of valuable income tax revenue. Additional staff would be needed to perform activities to identify additional taxpayers, monitor and enforce the City's mandatory filing requirement, monitor and collect delinquent accounts and ensure the accuracy of the returns filed, as discussed in **R3.6**. The replacement of the existing outdated income tax system with a new system that has enhanced functionality will also be necessary (see **R3.20**). To adequately equip this expanded income tax department, other operating costs such as materials and supplies, telecommunications and those associated with the provision of adequate office space, would be incurred by the City.

The following table presents a comparative analysis of revenues and expenditures of the City of Youngstown's income tax operations under these four different scenarios:

- Existing staffing level and operations
- First year of fully expanded in-house operations with additional staffing, new income tax system and improved processes (as discussed in the various recommendations throughout this report) that could generate a revenue level for the City of Youngstown that is comparable with that of the City of Canton (see **F3.5** and **R3.1**)
- First year of utilization of an external provider of income tax management services, assuming the provider could generate a revenue level for the City of Youngstown that is comparable with that of the City of Canton (see **F3.5** and **R3.1**)
- First year of utilization of an external provider of income tax management services, assuming the provider could generate a revenue level for the City of Youngstown that is 10 percent above that experienced by the City of Canton

The 10 percent additional increase noted in the last scenario is based upon an analysis compiled by one of the external providers, indicating that contracting for external management of income tax operations can generate significant increases in collection revenue. For example, the analysis reviewed the income tax activity of seven municipalities of varying populations before and after contracting. The increase in the number of accounts ranged from about 21 percent to 464 percent, with an average increase of 45 percent. The increase in the dollar amount of net collections in the first full year ranged from about 4 percent to 103 percent, with an average of 10 percent.

Table 3-22: Comparative Analysis of Various Income Tax Operation Scenarios

	Scenario #1 **Current Situation**	***Scenario #2*** **Improved in-house operations**	***Scenario #3*** **Use of external provider (revenue comparable to Canton)**	***Scenario #4*** **Use of external provider (10% revenue enhancement)**
Revenue				
FY 1998 collections	$31,874,229	$31,874,229	$31,874,229	$31,874,229
Additional revenue generated	N/A	$5,000,000	$5,000,000	$5,500,000
Total gross collections	$31,874,229	$36,874,229	$36,874,229	$37,374,229
Less refunds at 3.55%	($1,132,428)	($1,309,035)	($1,309,035)	($1,326,785)
Total Net Collections	**$30,741,801**	**$35,565,194**	**$35,565,194**	**$36,047,444**
Expenditures				
Current charges to existing department (**Table 3-3**)	$252,226	$252,226	N/A	N/A
Additional Salaries for Scenario #2 [1]	N/A	$331,000	N/A	N/A
Purchase of new income tax system and maintenance [2]	N/A	$151,000	N/A	N/A
Cost to use external provider [3]	N/A	N/A	$426,782	$432,569
One-time set up cost	N/A	N/A	$60,000	$60,000
Salary for tax commissioner [4]	N/A	N/A	$68,000	$68,000
Salary for two staff [5]	N/A	N/A	$68,880	$68,880
Total direct expenditures [6]	**$252,226**	**$734,226**	**$623,662**	**$629,449**
Available Revenue to City	**$30,489,575**	**$34,830,968**	**$34,941,532**	**$35,417,995**
Increase from FY 1998	N/A	$4,341,393	$4,451,957	$4,928,420

[1] The additional salaries are for approximately 11 supplemental positions as discussed in **R3.6** that would be needed if the City maintained in-house operations. In addition, the City is likely to incur additional costs associated with short term investigators to aid in the identification of potential taxpayers and possibly seasonal help to up-date income tax records. These costs are not currently quantifiable.

[2] The $151,000 includes a one-time cost of $145,000 and a $6,000 annual maintenance charge.

[3] The external providers' fees for income tax management services are based on the amount of net collections. Discussions with several external providers indicate they generally charge 1.2 percent of net collections.

[4] The tax commissioner is anticipated to manage the contract with the provider, review income tax management reports and assist with identification of potential additional taxpayers.

[5] The two staff are anticipated to perform functions associated with identification of potential additional taxpayers and in-house collection of delinquent accounts.

[6] In addition, there will be indirect costs such as supplies and telecommunications. These costs are not currently quantifiable.

R3.26 The City of Youngstown should consider contracting with an external provider for income tax management services. An external provider could perform many necessary functions described above that are not currently in place because of the inadequacy of the existing income tax system and limited staffing. Such functions could generate significant additional revenue for the City's operations.

Financial Implication: If the City contracted for income tax management services, the cost of the external provider would be approximately 1.2 percent of net collections. Under scenario 3 and 4, utilizing the assumptions stated above, the cost of the external provider ranges from $426,782 to $432,569 with a one-time set up cost of about $60,000.

Financial Implications Summary

The following chart represents a summary of the revenue enhancements, cost savings and implementation costs discussed in this section. For the purposes of this chart, only findings and recommendations with quantifiable financial impacts are listed.

Summary of Financial Implications for Income Tax

Recommendation		Revenue Enhancement	Cost Saving	Implementation Cost (One-Time)	Implementation Cost (Annual)
R3.1	Improve income tax collection procedures, as discussed in various recommendations throughout this report	$5,000,000 (annual)			
R3.3	Pursue alternatives to paying overtime to high salary staff during peak season		$6,610 - $8,661 (annual)		
R3.6	Expand existing income tax department and reorganize current structure				$331,000 (annual)
R3.8	Collect required income tax withholdings monthly	$7,600 (annual)			
R3.13	Obtain taxpayer information from the Ohio Department of Taxation to help identify non-filers				$750 - $1,500 (annual)
R3.20	Purchase new income tax system			$145,000 (one-time)	$6,000 (annual)
R3.26	Utilize external provider for income tax management services	(1)		$60,000 (one-time)	$426,782 - $432,569 (annual)
	Totals	**$5,007,600**	**$6,610 - $8,661**	**$205,000**	**$764,532 - $771,069**

(1) The utilization of an external provider most likely would be associated with an increase in total collections. This increase is reflected in the $5.0 million revenue enhancement.

The above financial implications are presented on an individual basis for each recommendation. The magnitude of the costs associated with some recommendations will be affected or offset by the implementation of other interrelated recommendations. Therefore, the actual costs versus estimated costs noted above could vary depending on the recommendations that the City implements. For example, utilization of an external provider for income tax management services would eliminate the need for a new income tax system as a system would be provided by the contractor.

Conclusion Statement

The City of Youngstown is currently managing and processing income tax information inefficiently using old technology. There is significant room for improving the City's income tax operations. Improvements in the utilization of technology and performance of key activities to identify and collect income tax revenue could result in substantial additional income tax revenue to the City.

The current income tax operations are manual and labor-intensive, due in part to the limited functionality of the existing income tax system. These factors combined with the understaffed income tax department result in the current staff performing primarily clerical functions, including the tax commissioner. The majority of the tasks performed revolve around depositing income tax receipts and data entry of tax information. As a result, activities to identify additional taxpayers and thorough reviews and audits of returns for accuracy and compliance are not currently being performed. Therefore, there is a risk that the City is not collecting all income tax revenue it is entitled to.

The lack of adequate management reports from the income tax system and limited staffing hinder the tax commissioner from monitoring and managing the City's income tax operations. For example, delinquent accounts are not effectively turned over for collection to an external collection agency and the department does not monitor the performance of the collection agency. In addition, the dollar amount of refunds has been steadily increasing over the last three years. The City could benefit from a process to audit refund requests for appropriateness to ensure overpayments are not occurring. Although the City has a mandatory filing requirement, the number of annual income tax forms mailed shows a continual decline since the late 1980's. This indicates a potential for additional income tax revenue from non-filers.

A comparison to peer cities supports the City's lack of focus on identification of potential additional taxpayers and proper review of tax returns. The City of Youngstown's tax collections for businesses and individuals appear low when compared to the peer cities as a percentage of total collections. In addition, the percentage of refunds compared to gross collections appears high. If the City improved the effectiveness of its income tax operations to more closely match the peer cities, there is a potential to collect an additional $5.0 million or more annually in income tax revenue.

Given the extent of the operational and financial challenges confronting the City, an option for the City is to contract for income tax management services. Through a better managed operation by an independent external provider, the City of Youngstown could achieve significantly increased income tax revenue. In addition, securing external income tax management services would also provide many operational benefits to the City. The City should seriously consider this option. If the City chooses to maintain income tax operations in-house, additional staffing and a reorganization would be necessary to identify additional taxpayers, monitor and enforce the mandatory filing requirement, monitor and address delinquent accounts and ensure the accuracy of the returns filed.

Payroll

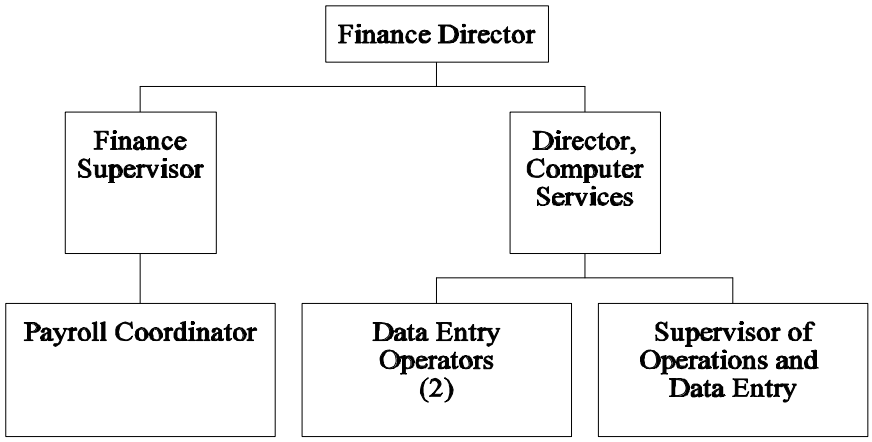
Background

This section focuses on time and attendance reporting, payroll transaction processing and paycheck generation and distribution. For purposes of this performance audit, the payroll processes at seven of the larger departments were selected for review (finance, police, fire, streets, water, waste water, parks and recreation).

Organization Chart and Staffing

The City of Youngstown does not have a separate payroll department or a human resources department. The organization chart below shows the reporting relationships for the positions that are primarily involved in processing payroll and distributing paychecks.

Chart 4-1: Key Personnel Involved in Payroll Operations



In addition to the staff shown above, each department/division has an individual that functions as a payroll clerk. Each department is responsible for collection of time and attendance information as well as tracking of leave balances. Also, an individual in the Civil Service department reviews and certifies the payroll journal before payroll checks are issued. According to the Civil Service department, this process is a check that all employees being paid are employees of the City and that employees are not consistently working excessive hours. A review of payroll by Civil Service is also performed by the peer cities.

Organization Function

The operation of the City's payroll processing is the responsibility of the finance director. The primary functions of the payroll coordinator and the departmental payroll clerks combined include the following:

- Maintain official attendance records for all City employees
- Maintain various leave records for all City employees (only sick leave and vacation balances are maintained in the payroll system)
- Issue payroll checks for all City employees
- File required retirement system reports and other required withholding such as state, federal and local taxes
- Disburse voluntary deductions
- Produce statements of employee compensation (pay stubs, W-2s)

Table 4-1 presents a summary of payroll positions and functions.

Table 4-1: Payroll Positions and Functions

Position	Function
Finance Supervisor	Provides overall direction to the payroll coordinator
Payroll Coordinator	Ensures each department submits time sheets for processing of payroll Processes voluntary and involuntary withholdings by manual checks Files all applicable state reports Handles paycheck distribution to the individual departments
Departmental Level Payroll Clerk	Updates departmental time summary sheets for data entry Approves the documents used to collect time and attendance information Tracks and maintains attendance records for vacation, personal leave, compensatory time and other leave Handles paycheck distribution to employees Maintains personnel files
Data Entry Operators	Sets up employees' payroll master files Enters payroll data
Supervisor of Operations and Data Entry	Maintains the payroll master file Prints applicable payroll reports Prints payroll checks
Civil Service	Reviews and certifies the payroll journal

Source: Interviews with personnel

The individual departments are responsible for tracking and maintaining official attendance records for applicable leave such as vacation, personal leave and professional leave. Departmental supervisors are responsible for approving the documents used to collect time and attendance information and distributing paychecks. The department of risk management maintains information on medical and life insurance eligibility and related activity. The finance department reconciles invoices from the provider to payroll information to determine that employees on the invoices are current City employees.

Summary of Operations

All positions are initially created in the authorized position file after the passage of a City ordinance. The supervisor of operations and data entry, hereinafter referred to as supervisor of operations, in the computer services department is the only person who is authorized to create a position within the payroll master file. A completed personal data sheet and an appointment letter from the mayor's office are needed for a change in position. Changes in salary must be supported by a City ordinance and a completed personal data sheet. Position changes and salary changes are entered into the payroll master file by a data entry operator from the computer services department. The individual departments are responsible for ensuring that the proper documentation is submitted to the finance department to update the payroll master file in a timely manner.

With the exception of the streets department, the City uses a manual, paper-based system to track time and attendance for all employees. Payroll is processed based on actual hours worked and variances such as tardiness, shift differentials or working out of job classifications can impact an individual's pay. The departmental payroll clerks record leave information, overtime, extra-time or other changes in the amount the employees are to be paid on a pre-printed payroll time sheet that is forwarded bi-weekly to the payroll coordinator for review. The pre-printed payroll time sheet is generated from the payroll system and contains the employee name, department, division, clock number (employee identification number), appropriation code and hourly rate. The payroll coordinator reviews the payroll time sheets to ensure that each department has submitted a sheet, that the sheets are signed by the department head and that all proper authorization forms are attached. In addition, total hours are calculated for each time sheet to reconcile to the payroll audit reports printed after data entry.

Once the payroll coordinator completes her review, the time sheets are sent to the data entry operators for input and limited verification. The data entry operators enter all payroll information except the streets department's payroll. This information is entered into an on-line data entry software system (key master). The streets department also utilizes the key master application to enter their payroll information but this is done on a daily basis. Once the payroll information has been entered by the data entry operators and the streets department, audit reports are printed. The streets department clerk and payroll coordinator compare the hours on the audit reports to pre-calculated totals for accuracy of data entered. After any corrections are made, the payroll data is electronically

extracted from the key master system and uploaded to the payroll system by the Computer services department. The payroll system is an in-house application developed in 1975. The in-house payroll application interfaces with the accounting system. According to the director of computer services, the payroll system was tested for Year 2000 compliance on October 15, 1999 and is being used to process city payroll.

City employees are paid every other Friday, with a one week lag in payroll processing. Special pays are processed monthly. During 1998, a total of 62 runs were processed for special pays. The special pays are for hazardous duty, meal tickets, clothing allowance, car depreciation, non-use sick, non-use hospitalization and longevity. The City does not use direct deposit. A description of the general processing for one pay cycle is presented below.

Payroll Cycle Explanation

Friday: The pay period ends. Payroll time sheets for all smaller departments must be submitted to the payroll coordinator by 1:00 p.m.

Monday through the next Friday (Five work days):

Monday: The Monday following the ending of the pay period, payroll time sheets for all larger departments except the streets department must be submitted to the payroll coordinator by 9:00 a.m. The streets department must complete their key entry of payroll information by this day.

Monday through Tuesday: With the exception of the streets department, payroll time sheets are first reviewed by the payroll coordinator to ensure that each department has submitted a sheet, the sheets are signed by the department head and all proper authorization forms are attached. The payroll time sheets are checked for accuracy, the hours and any dollar amounts are totaled, and then submitted to data entry.

Payroll data is entered into the key master system by the data entry operators from the computer services department. Once all the payroll data has been entered, an audit report is run that shows the number of hours worked, the type of hours worked (regular, sick leave, vacation and overtime) and changes made to the payroll master file by department. The payroll coordinator compares the batch totals on the audit report to the payroll time sheets totals to ensure that payroll information was entered correctly. The streets department payroll clerk also compares the audit report to pre-calculated totals on her worksheet. Discrepancies are researched and rectified. Once all changes have been made, payroll data is extracted from the key master system and uploaded to the payroll system. The department head in the streets department signs off on the department's payroll before the data is uploaded to the payroll system.

Wednesday: Pay checks are run and all related payroll reports are printed. The paychecks are printed in the computer room by the computer services department staff. The payroll coordinator reconciles the payroll journal by a comparison of the year to date totals from the previous pay plus the current payroll amounts to ensure the figures equal the year to date totals for the current payroll run.

Thursday: Payroll checks are sorted by department for distribution. Payroll deduction checks are manually printed. Time sheets and the payroll journal are submitted to Civil Service for review and certification. Checks can be picked up on Thursday if the employee had turned in a note in advance, signed by the supervisor, stating that the employee is scheduled to be off on Friday. In addition, employees who work second shifts may receive their paycheck on Thursday. An advance note is not necessary for second shift employees.

Friday: All other checks are picked up on Friday by the departmental payroll clerks and distributed to employees.

The payroll coordinator types and mails deduction checks. The finance supervisor prepares and files tax withholding reports and completes the quarterly Ohio Bureau of Employment reports, wage surveys for the Bureau of Unemployment Services and workers compensation forms. The payroll coordinator and the departmental payroll clerks process employment verification and unemployment forms. W-2 wage reports are processed and distributed to employees before January 31 each year. W-2 forms are disbursed at the departmental level and any unclaimed W-2 forms are investigated by the departmental payroll clerks.

Financial Data

Table 4-2 presents FY 1998 payroll statistics for the City of Youngstown and its peer cities.

Table 4-2: Payroll Statistics

	Youngstown	Canton	Springfield	Lorain
Payroll gross expenditures	$29,181,126	$40,643,967	$27,375,217	$21,000,000
Staffing (FTE)	1.6	7.0	1.5	1.0
Regular pay runs per fiscal year	26	27 [2]	27 [2]	26
Special pay runs per fiscal year	62	6 [3]	2 [3]	0 [3]
Total number of regular employees	828	1,264	680	590
Average checks processed per regular run	924	586	388	680
Average direct deposits per regular run	N/A	639	350	N/A
Number of manual checks	30	145	72	2
Number of W-2's issued [1]	1,132	1,523	949	880

Source: City payroll departments

FTE = Full time equivalent
N/A - Does not offer direct deposit
[1] Includes seasonal and part-time staff.
[2] Canton and Springfield have 27 pays for 1998 because of the way their pay dates were structured during the 1998 calendar year.
[3] The peer cities minimize special pay runs by consolidating them with the regular pay runs. Payments to employees for items such as tool allowance and miscellaneous personal equipment are made through the accounts payable process.

Performance Measures

The following is a list of performance measures that were used to analyze the City's payroll operation.

- Cost effectiveness of time and attendance collection
- Effectiveness and efficiency of payroll transaction processing
- Adequacy of the payroll system
- Accuracy of attendance reporting
- Accuracy of employee payroll information (new hires, pay changes, terminations)
- Cost efficiency of check distribution and direct deposit
- Adequacy of level and mix of staff

Findings / Commendations / Recommendations

Time Collection and Payroll Processing

F4.1 The current method for collecting time and attendance information varies from department to department and is a labor-intensive process involving some duplication of effort. Each department is responsible for tracking daily time and attendance for their employees. Of the departments reviewed, four departments use a time clock system, while the remainder use daily sign in sheets to capture attendance. The following describes selected time collection processes currently in place that are labor-intensive or appear to be a duplication of effort.

- Using the clock cards and sign in sheets, the supervisor manually tabulates actual time worked and then transfers the hours to a worksheet/attendance book on a daily basis. The worksheet/attendance book is then forwarded to the departmental payroll clerk instead of the clock cards and sign in sheets along with any approved absence and/or overtime sheets.

- Many departmental payroll clerks maintain separate records of daily attendance as a backup measure to double check the accuracy of the supervisor's worksheets/attendance book.

- With the exception of the street department, the departmental payroll clerks manually transfer payroll data from the supervisor's worksheets/attendance books to the clerk's worksheets/attendance book and then also to the payroll time sheets.

Currently, the street department is the only department that is entering time and attendance information into the key master application. An assignment sheet is completed to show the job function and daily work location of the employees. Time clock cards and the assignment sheet data are summarized onto a daily time report by the foremen and then forwarded to the departmental payroll clerk for data entry.

According to the computer services director, the City intends to implement an on-line payroll system, where each department can enter their own payroll directly into the system. Although the City has the hardware and programmers to develop an in-house on-line system, they cannot currently do so because of efforts to address Year 2000 compliance. The computer services director anticipates starting the development of this system by the beginning of the year 2000. However, there is no formal established timetable for this project.

R4.1 Given the significant amount of staff hours required to monitor, capture and report the time and attendance data for approximately 900 employees at 21 locations, the City should investigate installing an automated time and attendance system throughout the City.

Automation could increase the accuracy of the time capturing process. The following is a list of some of the benefits of an automated time and attendance system:

- Provides a method for capturing time and attendance that would be consistent throughout the City
- Reduces the time operational units spend capturing and reporting time and attendance
- Increases the accuracy of the time capture process, thereby reducing the time spent on error correction
- Allows managers to more easily control payroll costs and justify staffing decisions
- Documents employee work history on line, making information more readily accessible
- Supports contract negotiations

Financial Implication: To implement an automated time and attendance system, there would be a one-time implementation cost for the purchase of hardware and software of about $65,670, according to estimates provided by one vendor. Staff training would be an additional one-time cost of $4,580. In addition, there would be an annual maintenance and support cost of $5,670. The cost of an automated time and attendance system would be offset by various savings. Elimination of currently manual time collection activities would result in labor savings to the City. Streamlining and automating the time collection process at the City could ultimately result in cost savings due to a reduction in staffing necessary for payroll related activities.

R4.2 If the City does not purchase and install an automated time and attendance system, the City should consider expanding the use of the key master system and having all departments enter payroll on line. Operational efficiencies that could be achieved include the following:

- Minimization of paperwork
- Elimination of the duplication of effort generated by having the departmental payroll clerks manually transfer payroll data onto the time sheets
- Maximization of the data entry operators' time to allow them to be available to work on other projects and perform other necessary duties

The City should review the internal control structure of the existing payroll process if an expansion of on-line access to key master is implemented. Additional control checks and balances would be needed at the departmental level to ensure timely and accurate processing of payroll. For example, departmental payroll clerks could utilize batch controls when entering payroll data to ensure accurate data entry. Modifications to current payroll procedures may also be needed as all departmental payroll clerks begin using the key master application to enter payroll data.

In addition, the departmental payroll clerks should discontinue maintaining separate attendance journals. The departmental supervisor's worksheets with the accompanying support documentation should be used as the source documents to complete the payroll time sheet. A copy of the payroll time sheet can also be maintained and used as a source reference to answer any questions concerning an employee's payroll. Alternatively, providing the departmental payroll clerks with on-line read-only access to the payroll system would help minimize paperwork and facilitate answering payroll questions.

F4.2 The payroll application that was developed in-house in 1975 represents old technology and has limited functionality. The City does not currently utilize a comprehensive human resources information system. **Table 4-3** summarizes an assessment of payroll-related technology at the City.

Table 4-3: Payroll Technology Assessment

Payroll System Functionality	Functionality Available?	Functionality Used?
Time and Attendance Collection		
Captures time and attendance data in an automated manner and interfaces with the payroll system	No	No
Generates pre-printed time sheets	Yes	Yes
Payroll Processing		
Can enter payroll data on-line (ability to enter time sheet data from remote locations)	Yes (key master software)	No - with the exception of the street department
Can approve payroll data on-line	No	No
Contains built-in controls to prevent entry of invalid data and to detect unauthorized users	Yes	Yes
Can automatically process recurring nonstandard payroll deductions such as garnishments, child support and union dues	Limited	Yes
Can track and process non-regular payroll (longevity, non-use of sick leave and hospitalization, meal tickets)	No	No
Generate edit and error reports	Yes	Yes
Generate payroll exception reports	Limited	Yes

Payroll System Functionality	Functionality Available?	Functionality Used?
Generate payroll and deduction checks	Yes - payroll checks No - deduction checks	Yes - payroll checks No - deduction checks
Can handle direct deposit	No	No
Track and maintain all leave accrual and usage	No (only sick leave and vacation are tracked) [1]	No (only sick leave and vacation are tracked) [1]
Can allocate wages to multiple accounts	Yes	Yes
Interfaces with the accounting/budgetary system	Yes	Yes
Other		
Generates payroll journals	Yes	Yes
Generates various standard and custom reports (check register, leave, overtime, deduction)	Yes	Yes
Provides remote on-line inquiry and on-line printing capability	No	No
Provides remote on-line editing of payroll data prior to posting	No	No
Can generate W-2 forms	Yes	Yes

Source: Computer Services Department

[1] For other leave categories such as personal and accumulated time (comp time), the system is not currently maintaining this information so the balances are being tracked at the departmental level.

According to the computer services director, the City intends to program additional enhancements to the current payroll system. However, there is no formal established timetable for this project. According to the director of computer services, the payroll system was tested for Year 2000 compliance on October 15, 1999 and is being used to process city payroll.

R4.3 The City should increase the use of technology in its payroll operations. A payroll system with enhanced capabilities could allow for the automation of functions that are currently manually performed. Additionally, the City could realize improvements in staff productivity and the finance department could provide employees with additional payroll services. The following discusses three options for the City.

Option A

One option for the City is to review the functionality of the in-house payroll application to determine additional needs and enhance the in-house application to provide these additional functions. Possible enhancements to the current payroll system in place include the following:

- On-line approval of payroll data from remote locations
- On-line editing of payroll data from remote locations
- Ability to track and process non-regular payroll (longevity, non-use of sick leave and hospitalization, meal tickets)
- Generation of deduction checks
- Ability to handle direct deposit
- Ability to track and maintain leave accrual and usage for the various types of leave provided by the City
- On-line inquiry and printing from remote locations

According to the computer services director, the system could be enhanced with additional programming. However, the City has only one programmer available to modify all major in-house systems except for the water department systems (see the **technology** section of this report). Although the current payroll system could be enhanced in-house given the staffing level in the computer services department, it is somewhat questionable whether the City would be able to support such significant enhancements to the current system. Consequently, the City may want to consider options B and C.

Option B

An alternative option would be for the City to purchase a payroll application from an external vendor that provides the needed functionality. The City of Springfield uses the payroll/personnel module of the City*Soft* package provided by HTE, Inc. and the City of Lorain uses a payroll/personnel application designed for public sector entities that is supplied by New World Systems.

Purchasing an integrated payroll/personnel application would provide payroll-related functionality not currently available as well as allow the City to perform enhanced human resources activities such as tracking pension and workers' compensation. For example, the City*Soft* payroll/personnel application has the capability to support direct deposit, maintain employee history and track accrued time earned and taken for numerous user-defined leave categories. Estimates provided by one vendor indicate the cost for a payroll/personnel application could be about $148,000 for the software and license fees for 40 users. The $148,000 represents the cost for software that includes payroll, personnel and human resources modules such as applicant tracking.

A less costly alternative for the City would be to consider purchasing the ABRA payroll system from Financial Systems Associates that could interface with the City's Government Accounting and Financial Reporting System (GAFRS). The ABRA system could provide payroll functionality not currently available in the in-house system such as direct deposit and deduction processing for numerous types of deductions. However, the ABRA system is limited in the number of leave categories it will track. The estimated cost for this system is $20,000 and includes software, training and associated programming to interface with the GAFRS. In addition, there is an ABRA human resources application that can interface with the ABRA payroll system and provide enhanced human resources functionality. The cost of the human resources application is dependent on the number of system users.

Option C

A third option for the City would be to consider contracting with an external vendor for payroll processing and management services. Having an external vendor such as Automatic Data Processing, Inc. (ADP) manage the City's payroll could provide significant benefits, including the following:

- The City would not have to purchase and maintain hardware, software and related supplies such as checks and forms. The payroll system supplied by the vendor would physically reside at the City.
- The City could improve cash flow management because payments would be made as processing services were utilized, on a pay-as-you-go basis.
- Keeping abreast of payroll-related tax law changes and programming the appropriate modifications would be handled by the vendor.
- The vendor could assume responsibility for filing of payroll taxes such as federal, state, social security and Medicare as well as handle unemployment compensation activities.
- Generation of W-2 forms and payment via direct deposit could be performed by the vendor.
- Manual checks can be generated by City staff while maintaining the related transaction data in the payroll database.
- Vendor would be responsible for maintaining and supporting the software and hardware, as well as the related databases.
- Vendor would be using more up-to-date, comprehensive payroll software than is currently at the City.

The cost of payroll management services is dependent upon various factors such as the number of employees, frequency of payroll processing (number of payroll runs), use of direct deposit and number of leave categories to be calculated and tracked. Some vendors such as ADP will perform a cost analysis free of charge for potential clients. Such an analysis would

culminate in recommendations regarding products and services appropriate for the City as well as an identification of areas where the use of these products and services could generate labor and cost savings for the City.

It should be noted that the use of payroll management services could also be an interim solution for the City. For example, the City could contract for payroll management services to improve the efficiency and accuracy of payroll operations in the near term. This would allow the City time to more thoroughly evaluate various payroll software applications for purchase as a long-term solution.

With regard to other improvements in the use of technology, the City should consider implementing an automated time and attendance system, as discussed in **R4.1**, or expanding on-line entry of payroll data as discussed in **R4.2**.

F4.3 Currently, sick leave and vacation accrual and usage are being tracked both by the payroll system and manually at the departmental level. The departmental payroll clerks maintain manual payroll journals that show the sick and vacation hours earned, used and remaining. According to the departmental payroll clerks, this information is tracked manually because current information is needed to approve leave requests, process severance payouts and to ensure the balances are correct in the payroll system. However, the payroll system generates a sick and vacation leave report on a biweekly basis that shows leave usage and balances. This report is current as of the last payroll period processed. The department payroll clerks are provided with these reports when they pick up the paychecks.

R4.4 The payroll system should be fully utilized and relied upon as the official record for leave information. All employee leave time should be maintained in the payroll system. Taking into consideration issues such as security concerns and hardware capability, the City should also consider allowing the departmental payroll clerks to have on-line read-only access for reviewing leave information. This could enable the departments to monitor leave usage and balances and have timely information as well as reduce paperwork. See **R4.3** for a discussion of recommendations pertaining to the existing payroll system.

F4.4 The finance department prepares a quarterly vacation leave report on a lotus spreadsheet, using the biweekly sick and vacation leave reports generated from the payroll system. The purpose of the vacation report is to assist the departmental payroll clerks to determine employees' compliance with the City's use-or-lose vacation policy. The report shows the total vacation hours that an employee is entitled to use during a calendar year, the total vacation hours taken during the calendar year and the balance available for the remainder of the calendar year. This information has to be manually calculated because the system only tracks actual leave taken and balances by pay period and not by calendar year. This information is needed especially when pay periods overlap calendar years at year end to help

the departmental payroll clerks assign leave taken to the appropriate calendar year. See the **human resources** section for additional information and recommendations pertaining to the City's vacation policies.

The departmental payroll clerks are required to compare the vacation report to their manual records and respond back in writing (agree or disagree). According to the accounting supervisor, the payroll clerks do not always respond. Non-responses are considered as confirmation of balances.

R4.5 The payroll system should be able to generate management reports showing leave usage and balances for specific time periods. These reports would allow managers to monitor time and leave history more effectively. The City should not rely on non-responses as confirmation of leave balances. In addition, the payroll coordinator should investigate non-responses concerning vacation leave report comparisons to help ensure that leave balances are correct. See **R4.3** for a discussion of recommendations pertaining to the existing payroll system.

F4.5 The payroll system can automatically process various payroll deductions. In addition, the system can generate reports showing amounts withheld for each employee by type of deduction (for example, state tax, federal tax, credit union). However, the system is not currently capable of printing deduction checks. As a result, these checks are manually typed by the payroll coordinator. The payroll coordinator estimated that she spends approximately three hours per pay period on generating deduction checks. The following table lists the various types and numbers of deduction checks manually issued in 1998.

Table 4-4 Payroll Deduction Checks Issued in 1998

Type of Check	Number of Checks Written	Dollar Amount
Associations	68	$95,738
Child Support	285	467,296
Credit Union	48	2,977,487
Deferred Compensation	47	1,332,978
Garnishments	414	54,307
Insurance	62	25,839
Taxes (Federal, State, Local)	142	7,158,273
Retirement Funds (Service Buyback)	52	30,968
Union Dues	98	145,902
Miscellaneous	121	16,777
Totals	**1,337**	**$12,305,564**

Source: Acting Payroll Coordinator

The miscellaneous deduction checks consist of a variety of deductions that are not processed every payroll period (for example, hospitalization waiver, refund of garnishment, union special assessment, refund of credit union payment, flower fund). Because more than one type of deduction is currently coded to the miscellaneous code, the payroll coordinator must manually review and sort the various deductions to generate the deduction checks. In addition, other deductions such as garnishments are categorized under a specific code but also need to be manually reviewed and sorted because the payments are to be sent to different entities. According to the computer services director, the payroll system could be enhanced to print deduction checks, with additional programming.

R4.6 The payroll system should be used to process payroll deductions and print deduction checks. If the payroll system was used to automatically print deduction checks for all categories except miscellaneous and garnishments, this would reduce the number of deduction checks needed from 1,367 to 565, a reduction of 59 percent. In addition, the City should evaluate the cost-benefit of having the payroll system automatically print deduction checks for those categories such as miscellaneous and garnishments with a single code but multiple payees. Eliminating manual printing of checks by the payroll coordinator would provide a time savings to the City. This would allow the payroll coordinator to focus on other necessary duties. See **R4.3** for a discussion of recommendations pertaining to the existing payroll system.

Financial Implication: The labor savings to the City from the reduction in manual effort in printing deduction checks is estimated to be about $1,000 annually.

F4.6 The City pays its employees on a 26 pay, biweekly cycle. During the 1998 year, 62 special payrolls were also processed. As a result, from October 1998 through January 1999, the City processed a payroll every week.

The special payrolls arise due, in part, to requirements in the collective bargaining agreements calling for the issuance of special payments for certain types of benefits, such as those relating to hazardous duty, meal tickets, clothing allowance, non-use sick, non-use hospitalization and longevity. The number of checks created in 1998 through these special payrolls amounted to 4,766 or 15 percent of all checks generated by the City. Due to the associated review and reconciliation functions being performed, special payrolls are time consuming to process and cause the City to incur additional costs.

R4.7 The City should attempt to limit the number of times special payrolls are processed during the year. This could be accomplished by enforcing timely submission of payroll information, and combining special payrolls with the normal pay check processing. Modifying the timing of the processing of the special pays may be dependent upon labor negotiations. The peer cities (Canton, Springfield and Lorain) plan special pay runs to coincide with regular payroll dates. This allows the peer cities to minimize the number of payroll runs.

F4.7 The City does not have a payroll manual documenting its payroll procedures. The lack of a manual could be contributing to payroll errors consistently noted during payroll processing (see **F4.11**) as well as duplication of effort in various areas (see **F4.17**). Also, the lack of a manual could lead to difficulties in accomplishing responsibilities in an efficient manner when there is a change in the personnel who processes payroll in either the finance department or the individual departments.

Additionally, there is no formal training provided to finance department personnel or departmental payroll clerks on payroll processing procedures. Most duties are learned on-the-job. Some departmental payroll clerks were taught by the prior departmental payroll clerk. Other departmental payroll clerks were only provided with assistance from the payroll coordinator as questions arose.

R4.8 The City should develop a policies and procedures manual related to the payroll process for the finance department and individual departments. This manual could enable the payroll staff to have a resource available to help ensure proper compliance with all policies and procedures established related to the payroll process. Copies of sample computer screens and other documentation should be included in the manual. This manual should be reviewed annually and kept current.

An initial orientation training should be provided by the payroll coordinator to new staff assigned to perform departmental payroll clerk duties. In addition, the finance department should provide periodic training to staff on payroll policies and procedures to ensure that staff are familiar with their responsibilities. The payroll manual should be used as a basis for initial orientation and continuing training.

F4.8 The method used to document leave usage varies from department to department and is not standard throughout the City. Some departments require that vacation leave requests be made in advance on the appropriate form approved by the supervisor. Other departments complete a form for only sick leave but not other leaves. Some departments do not require a form for any leave taken. In addition, some departments use a separate form for each type of leave usage, while other departments have leave usage information contained on one form.

R4.9 The City should develop a standard method for capturing leave usage that would be consistent throughout the City. The City should consider having all employees complete and submit a signed leave sheet that is approved by the supervisor. In addition, the City should consider using one standard form that would cover all leave type usages throughout the City. This would reduce the amount of paperwork, reduce the amount of time spent handling and tracking multiple forms and improve internal controls over monitoring of leave usage.

The peer cities of Canton, Lorain and Springfield all have standard leave request forms for use throughout the City. The forms are comprehensive and allow for the recording of the various leave types applicable to that City. In addition, space is provided for approval or denial by the appropriate supervisor.

F4.9 Currently, the payroll system tracks sick leave and vacation usage and balances although employees accrue other leave benefits, such as personal, accumulated time, reduced hours, and injured on duty. This information is tracked at the departmental level (see **F4.3** and **R4.4**). Only sick leave balances are printed on the employees' paycheck stubs. Some departments provide leave reports to their employees but all employees are not routinely provided with individual leave reports showing leave usage and balances. Therefore, all employees are not provided with adequate information to review and verify leave usage and balances. According to City staff, vacation leave is not printed on the paycheck stubs because the system only tracks actual leave taken and balances by pay period and not by calendar year.

R4.10 The paycheck stubs should reflect all leave usage and balances for that individual employee (see **R4.4**). This would allow the employee to review and verify leave usage and balances. Any discrepancies can then be timely communicated to the departmental payroll clerks who would then be able to take action to resolve the discrepancies. This communication is important to help ensure that leave information in the payroll system is accurate and complete. See **R4.3** for a discussion of recommendations pertaining to the existing payroll system.

F4.10 Currently, the streets department is the only department entering time and attendance information into the key master application. After all data has been entered, an audit report showing the data input is generated by the computer services department and provided to the departmental payroll clerk. Although the data is entered daily by the clerk, the audit report is only printed at the end of the payroll cycle. In addition, the payroll clerk has to pick up the report from the finance department because the streets department does not currently have local printing capability with respect to the key master application. If the payroll clerk makes adjustments to the payroll data, another audit report is generated. This process is repeated until all data entry errors have been resolved. According to the computer services director, additional hardware and programming would be required to provide local printing capability.

R4.11 Taking into consideration issues such as security concerns and hardware capability, the City should provide the streets department payroll clerk with local printing capability. This printing capability should allow the payroll clerk to print audit reports locally on a daily or as needed basis, without having to wait until the end of the payroll period. This would enable the payroll clerk to review the payroll shortly after the data had been entered, allowing for detection and correction of errors in a timely manner.

Attendance Reporting

F4.11 The City has put in place controls over processing of payroll at the departmental level and within the finance department. However, errors are noted by the acting payroll coordinator and the streets department payroll clerk during payroll processing. According to the acting payroll coordinator, the following are some of the errors consistently noted and corrected prior to check distribution:

- **!** Hours are not properly coded by the departmental payroll clerks. For example, a holiday pay may be incorrectly coded as regular pay.
- **!** Shifts worked are not properly coded. For example, hours worked during a first shift may be incorrectly coded as a second shift.
- **!** Supporting documentation (personal data sheets) for changes in pay rates on the payroll time sheet are not provided to the payroll coordinator timely.
- **!** Hours are not charged to the proper appropriation code.
- **!** Non-regular hours (docked time) are not properly indicated on the payroll time sheet.

City staff stated they did not know what the underlying causes of the payroll errors were, but indicated that possible reasons for these errors include the following:

- **!** Most of the departmental payroll clerks do not have adequate time to spend on payroll because of their other numerous job responsibilities in addition to their payroll functions

- ! Departmental payroll clerks do not always receive payroll documentation from employees in a timely manner
- ! Lack of formal training
- ! Lack of a payroll procedures manual
- ! Reliance by the departments on the payroll coordinator to correct errors versus correcting the errors themselves

According to the acting payroll coordinator, several departments (police, health, streets and fire) consistently have more errors in their payroll data each pay period than other departments. Although the acting payroll coordinator has informed these departments of these issues, there is still the risk of inaccuracies in the City's payroll data due to the short one week lag in payroll processing.[1]

R4.12 An increase of the lag time between the payroll period end date and the actual pay date would allow the City to stop estimating payroll information and allow for extra time to ensure the accuracy of the payroll. Currently, the City has an approximate one week lag time. The City should consider a two week lag time. The implementation of an additional week of lag time could be phased in by increasing lag time one day each pay period until a full week has been added. A phased implementation will minimize the effect to the employees. Modifying the payroll lag time may be dependent upon labor negotiations.

Additionally, the implementation of various recommendations in this section would address the possible causes of payroll errors and help decrease the errors noted each payroll period. For example, elimination of duplicate efforts regarding payroll processing and tracking of leave would allow the departmental payroll clerks more time to spend on necessary payroll duties (see **F4.3**, **F4.4**, **F4.17)**. The development of a payroll procedures manual for the finance department and individual departments would help ensure that payroll documentation is properly completed and submitted within the payroll deadlines established (see **F4.7** and **R4.8**). Providing employees and payroll staff with training would help reduce the time the payroll coordinator spends on correcting payroll errors (see **F4.11**).

F4.12 Fire department employees may be eligible for the following leave benefits: fair labor standards act (FLSA), reduced hours, sick, vacation, honor guard and accumulated time (A/T). Leave benefits earned are based on the number of hours an employee works, which is documented on a time sheet approved by the supervisor. Leave forms are completed for sick leave usage only.

[1]In addition, the short lag time in payroll processing results in payroll information for employees in the smaller departments to be estimated as payroll sheets must be turned in by 1:00p.m. the last day of the pay period.

There is no standard method for tracking and maintaining the various types of leaves within the fire department. As a result, there is duplication of effort in tracking certain types of leaves. For example, information on FLSA and A/T hours is maintained manually in the payroll journal, on index cards and on the departmental computer system. Other leave such as reduced hours and vacation are recorded only in the payroll journal. There is a manual payroll journal for each employee which primarily shows the leave taken each month and balances for FLSA, reduced hours and vacation.

The departmental payroll clerk tracks and maintains leave balances based on documentation approved and provided by the supervisors. The departmental payroll clerk makes monthly reports available to the employees that shows leave earned, taken and balances for the various leave types to ensure that the balances in the department records are correct. There does not appear to be any other verification checks performed to ensure that recorded balances are accurate. For example, the City's ability to review and verify the accuracy of the severance payout process is hindered by the lack of documentation for leave usage and the absence of verification checks of leave balances. See **R4.13** for recommendations addressing the issues of this finding and the following finding dealing with leave reporting and tracking in the police department.

F4.13 The current method for collecting, documenting and reviewing time and attendance data for the police department allows for inefficiencies and duplication of effort. The roll call method is used to document daily attendance. The commander calls out the employee's name or observes the employee's attendance. Attendance or non-attendance is manually documented in a roll call book. Employees who are not part of the roll call use sign in/out sheets. The information per the sign in/out sheets is transferred to the roll call book. The commander enters the attendance data in the roll call book into a spreadsheet on the department's computer system. In addition, the commanders record A/T hours for each employee in separate manual journals. The commanders prepare a monthly report that shows the A/T hours earned and used as well as the balances, which is made available to the employees. Employees complete the appropriate form for non-regular hours worked such as overtime, court time, change day, holiday, and injured on duty as well as for leave usages. These various forms are approved by the supervisor.

Each payroll period, the departmental payroll clerk retrieves the payroll data from the computer and performs a one-to-one comparison to the roll call book as well as the appropriate non-regular hour and leave usage forms for accuracy. Control totals are not used. Once the verification process is completed, the attendance information data in the computer is manually transferred to the payroll time sheet and forwarded to the finance department for payroll processing. Only sick and vacation leave is currently reported to the finance department.

R4.13 The City should improve internal controls and procedures over the documenting and tracking of leave in the fire (see **F4.12**) and police departments (see **F4.13)**. As discussed in **R4.4**, all leave types should be tracked and maintained in the payroll system. The City should rely on the payroll system as the official record for leave balances. In addition, the City should consider developing and enforcing standard forms for the tracking of leave usage (see **R4.9**). Having appropriate leave forms that have been reviewed and approved by the supervisor could help to verify that recorded balances are accurate. The leave forms could be used to perform cross-checks of recorded balances. Also, showing all leave balances on the employees' paycheck stubs would allow the employee to review and verify recorded leave balances for accuracy (see **R4.10**). Proper controls to ensure accurate leave balances are important for the City. For example, new A/T time is paid off at a higher rate than old A/T time (see **F4.14**). Additionally, accurate leave balances would help to ensure compliance with FLSA provisions.

F4.14 In the police department, the department secretary is responsible for processing the severance payout documentation that is submitted to the Board of Control for approval. However, she does not coordinate with the departmental payroll clerk in completing the documentation. The department secretary obtains leave balances from the commander's manual journals for A/T hours (see **F4.13**). Sick and vacation leave balances are obtained from the payroll system. In 1998, the City paid out $126,574 in severance pay for the police department. Although this amount was not a significant amount for FY98, the amount an individual can receive can be relatively large. For example, a police department employee received $55,621 in severance payout.

The following summarizes the various leave types paid out when an employee retires or resigns from the police department (frozen accumulative time (old A/T), current accumulative time (new A/T), sick time, vacation, longevity and hazard duty).

- Old A/T and new A/T is time earned for working in excess of regular scheduled hours. An employee has the option of receiving pay or time off. Hours earned prior to January 1, 1986 is considered old A/T and is paid at 80% of the employee's current wages when they retire or resign. Hours earned from January 1, 1986 and on are considered new A/T which has a ceiling of 480 hours and is paid at 100% of current wages. Per the union contract, employees have the option of charging time off to either new A/T or old A/T.

- Longevity and hazard duty hours are prorated when a person retires. Longevity is prorated based on an employee's service record while hazard duty is prorated based on the number of hours worked during that calendar year. These benefits are not received if a person resigns.

- **!** For sick and vacation leave, the biweekly leave reports from the payroll system are used and relied upon to determine balances. The employee is entitled to a payout of a percentage of the total balance, according to the contract. Vacation is paid out in full.

The balances taken from on the commander's manual journal are not cross-checked to either the balances in the department's computer system or the underlying forms. Therefore, there is no assurance that the severance payout amounts are accurate.

R4.14 The City should strengthen control procedures over the severance payout process. The amount of severance payout to an individual can be high. If the City has several concurrent retirements, the total amount of the severance payout can be significant. Given the City's limited financial resources, this could adversely affect its cash flow. In addition, the lack of proper controls could potentially result in an individual receiving an overpayment.

If all leave is tracked in the payroll system and adequate controls are put in place to ensure that recorded balances are correct, then the payroll system can be relied upon as the official record for leave information. In the interim, leave balances taken from the commander's manual journal should be cross-checked to the balances in the department's computer system. In addition, selected leave amounts in the commander's manual journal should be traced back to appropriate supporting documentation to verify accuracy of leave usage. The City should consider implementing similar procedures regarding severance payouts in the other departments.

At Springfield, one of the peer cities, departmental balances are reviewed by the finance department prior to final authorization and payment. Leave balances are determined and the total severance payout amount is calculated by the department on a summary sheet. The summary sheet is forwarded to the finance department where it is reconciled to the finance department's leave records. This procedure represents another option for the City. However, implementation of this process is dependent upon the tracking of all leave types in the payroll system as discussed in **R4.4**.

F4.15 Vacation is earned based on an employee's anniversary date. However, the City's contracts advance increased vacation rates to "January 1 in the calendar year in which the appropriate anniversary is completed." As a result of this clause, an employee hired November 30 shall be eligible to use his accrued vacation the following January, thereby undermining the provision that stipulates employees must work for one full year before being eligible to use vacation. Advancing of vacation leave to employees prior to their earning this time can generate negative vacation balances in the payroll system.

It was noted during a review of employee leave balances that six of the seven departments selected for review had some employees with negative vacation balances as of the payroll period ending December 18, 1998. **Table 4-5** shows the six departments, the number and percent of employees in that department with a negative vacation balance and the total number of negative vacation hours as of the December 18, 1998 pay period.

Table 4-5: Departments with Negative Vacation Balances

Departments	Number of departmental employees	Number of employees with a negative vacation balance	Percent of employees	Total negative vacation hours
Water	81	1	1.2%	2
Waste Water	82	5	6.1%	12
Streets	54	3	5.6%	46
Finance	31	1	3.2%	3
Fire	144	45	31.3%	2,272
Police	246	14	5.7%	129
Total	**638**	**69**	**10.8%**	**2,464**

Source: 12/18/98 biweekly sick and vacation leave report

The large balance in the fire department is due to several factors. According to fire department staff, one factor is the advancing of vacation leave to employees prior to the earning of this time per City policy. Another factor is the advancing of vacation leave by previous fire chiefs to some employees upon their hire, which is outside of City policy. As a result, some employees were advanced vacation leave which was never earned but which was taken, thus generating negative leave balances. When these employees resign or retire, the negative leave balances, valued at their current pay rate, will be deducted from their severance payout.

The **human resources** section of this report contains additional information regarding the City's leave policies. The **human resources** section also discusses recommendations regarding discontinuance of the advancement of vacation time and several alternative approaches to accumulating vacation time.

Staffing Level and Responsibilities

F4.16 Most of the individuals that function as departmental payroll clerks are responsible for performing other duties, including clerical functions. The majority of the departmental payroll clerks assist in processing procurement related documents. The following table shows the percentage of estimated time spent on payroll activities by the departmental payroll clerks in the departments selected for review.

Table 4-6: Time Spent On Payroll Related Duties By Departmental Payroll Clerks

Department	Police	Fire	Streets	Water	Waste Water	Park
Percentage of time spent on processing the department's payroll	60%	40%	70%	65%	50%	40%-summer 20%-off season
Number of employees that the departmental payroll clerk is responsible for	246	144	54	81	82	200 - summer 49 - off season

Source: Interviews with various personnel

Note: The percent shown above represents time spent on payroll duties by one departmental payroll clerk. The water department has two payroll clerks. The percentage shown above represents time spent by the payroll clerk that handles the greater number of employees within that department.

The implementation of the various recommendations contained in this section would reduce the amount of time currently spent on payroll related duties. This would allow the departmental payroll clerks to focus on other necessary duties or possibly allow the departments to combine multiple functions under one position.

F4.17 **Table 4-7** summarizes selected payroll functions performed by various positions and indicates there are several areas where there is duplication of effort in the City's current payroll processing.

Table 4-7: Selected Payroll Positions and Functions

Function	Department supervisor	Departmental payroll clerks (excluding streets dept.)	Payroll coordinator
Maintains manual logs to document time and attendance	Yes	Yes	Only for finance department
Maintains employees' history data on salary and positions	No	Yes	Yes (City-wide)
Maintains Personnel files	No	Yes	Yes (City-wide)

Source: Interviews with various personnel

Regarding the maintenance of manual logs, the departmental payroll clerks, excluding the streets department clerk, are performing the same function as the department supervisors. The departmental payroll clerks, except for the streets department clerk, are also maintaining employee payroll-related history data and personnel files. These activities duplicate functions already performed by the payroll coordinator.

In addition, the departmental payroll clerk in the shop division of the water department is performing payroll activities that duplicate functions carried out by the payroll system. The clerk manually computes employees' gross wages every payroll period on her payroll worksheet. The clerk also maintains leave accrual and usage data (sick, vacation, personal, injury on duty). She manually updates an employee payroll record form every pay period that notes hours taken, hours accrued and ending balances. The clerk also maintains an employee personal history index card for each employee in the shop division. The index card contains information on an employee's service record (start date, termination date) as well as personal data. According to the departmental payroll clerk, the manual processes for an average of 100 employees per pay period takes about 38 hours per pay period. The payroll system performs these operations except for a portion of the leave balance operations and currently only tracks and maintains sick and vacation leave.

There also appears to be duplication of effort regarding processing of payroll information within the shop division in the water department. The shop division consists of the construction, engineering, meter and garage sections. Each section has an assigned individual functioning as a clerk time keeper who is responsible for reporting time and attendance information (hours worked, shift differentials, job classifications) for the employees in that section to the departmental payroll clerk. Only the construction section was reviewed

because it represents the largest section in the division. The actual time worked is summarized from time cards and allocated to various job classifications on a daily time report form. This information is then transcribed onto a daily check sheet which shows leave taken and hours worked per shift by employees' clock numbers. The data on the daily time report form is also transcribed onto a monthly time book. The daily check sheet and monthly time book both contain the same information. Only the daily time report form and the daily check sheet are forwarded to the departmental payroll clerk.

R4.15 The City should review those areas of payroll processing where duplicate records are being maintained by both the finance department and the individual departments. The specific functions where there is duplication of effort should be evaluated to determine at which level these functions would best be performed. This analysis should be used to develop and update position descriptions, as discussed in **R4.16**. Eliminating duplication of effort would allow City staff to reallocate their resources to other necessary duties

In addition, the departmental payroll clerk in the shop division of the water department should discontinue manually calculating employees' gross wages every pay period. In addition, the departmental payroll clerk should discontinue maintaining manual records that duplicate information already in the payroll system and rely on data from the payroll system. Using the payroll system to maintain all leave information is discussed in **R4.4**.

The water department should also review the job functions of the departmental payroll clerk and the clerk time keeper positions within the department. All duplication of duties performed and information maintained should be eliminated. For example, the clerk time keeper should discontinue the monthly time book and use the departmental payroll clerk's payroll worksheet since it contains the same information but on a biweekly basis. In addition, the department should consider consolidating the daily time report form and daily check sheet into one document. This will minimize paperwork, eliminate duplicate record keeping and allow the clerk time keeper to work on other projects and perform other necessary duties.

Financial Implication: The labor savings to the City from the elimination of the duplicate activities in the shop division of the water department is estimated to be $11,400 annually. The departmental payroll clerk could then devote this time to other necessary duties. Currently, there is a separate individual who performs procurement related duties in the Shop division. If the City adopts the majority of the recommendations in this report such as enhancing the payroll system or purchasing a new system to track all leaves and implementing an automated time and attendance system, it could be possible to combine the payroll and procurement duties in the water department under one clerk position. This would eliminate one FTE and result in a cost savings of $24,000.

F4.18 Several job descriptions pertaining to the functions that perform payroll duties are not up-to-date. Some of the position descriptions such as those for the water department payroll clerk (shop division) and the waste water department payroll clerk have been recently updated. However, the payroll coordinator's position description has not been updated since April 1981. As a result, the position description lists typical tasks that are no longer relevant given the City's current operations. For example, one of the typical tasks listed is to operate a payroll bookkeeping machine which the City no longer uses.

In addition, the responsibilities listed on the position descriptions are not always specific. For example, the waste water department payroll clerk's job description (administrative officer) lists "handles limited payroll functions" as an example of payroll-related duties. Also, the park and recreation department payroll clerk's job description (executive secretary) notes "prepares payroll" as the payroll-related responsibility. Outdated job descriptions pose a problem for staff evaluations. Staff cannot be properly evaluated when the criteria they are to be evaluated against are no longer relevant. Additionally, not having up-to-date job descriptions could prevent the City from attracting qualified candidates because they may lose interest in submitting an application if they believe they will be performing activities that are outmoded.

R4.16 The City should continue to revise outdated position descriptions so they include specific tasks and responsibilities that more accurately reflect basic payroll functions needed to support the City's payroll operations. In determining the specific tasks, the City should also take into consideration the implementation of any new technology or changes in procedures made to streamline payroll operations. Also, the City should clearly delineate the functions, duties and responsibilities between the payroll coordinator, the departmental payroll clerks and the department supervisors as they relate to payroll processing to prevent duplication of effort, as discussed in **F4.17**. In deciding which positions should perform specific necessary payroll functions, management should determine the most effective use of existing staff. The duties developed and incorporated should be supported and enforced by management. See the **human resources** section of this report for additional information.

F4.19 There is a significant difference between the City's number of authorized positions versus the number of actual positions. For example, the water department has 237 authorized positions but only 118 actual positions funded representing a 50 percent staffing level. The computer services department has 21 authorized positions but only 11 actual positions funded in the budget representing a 52 percent staffing level.

City Council per the City charter authorizes new positions. According to City management, several reasons required the authorization of positions that currently have remained unfunded. In the water department, position levels are authorized individually to allow for the advancement of staff as they complete different plant operator license requirements and pay

levels. In addition, authorized positions may become obsolete. For example, the computer services center has several technical positions authorized but due to changes in technology, their functions are no longer needed.

R4.17 The City should consider improving procedures over the establishment and maintenance of authorized positions to facilitate more effective position control. As a start, the City should review all authorized positions to determine if these are necessary and take appropriate action to eliminate those positions that are outdated. For example, some of the currently established authorized positions such as those in the computer services department may not be relevant positions necessary to support the City's operations. Such positions should be removed from the payroll system. After performing this comprehensive review, the City should then establish a formal review process to review authorized positions on an annual basis. The results of this staffing analysis should be incorporated into the development of the City's annual budget.

As an alternative, the City could consider not having City Council approve new positions as a separate process from the approval of the annual budget. The City could perform the annual staffing analysis and present this as part of the annual budget. City Council could then approve the establishment of new positions and elimination of existing positions through the budgeting process. However, this alternative will involve changing the City's charter which would require approval through a vote from the City's constituents.

Employee Payroll Information Accuracy

F4.20 All positions are initially created in the payroll master file after passage of a City ordinance. The supervisor of operations in the computer services department is the only person who is authorized to create a position within the payroll master file. However, there are no verification checks performed to ensure the correct information is entered into the payroll master file.

A completed personal data sheet and an appointment letter from the mayor's office is needed for a change in position. Changes in salary must be supported by a City ordinance and a completed personal data sheet. Resignations/terminations are supported by a resignation letter or other appropriate documentation and a completed personal data sheet as well as Board of Control approval for any severance payouts. Position changes, salary changes and resignations/terminations are entered into the payroll master file by a data entry operator from the computer services department. The individual departments and employees are responsible for ensuring that the proper documentation is submitted to the finance department to update the payroll master file in a timely manner.

According to the acting payroll coordinator, the documentation that supports the changes to the payroll master file are not always attached to the personal data sheets required to be submitted with the payroll time sheets by the departments. As a result, payroll cannot be processed until the documents are received from either the departments or the mayor's office. When this occurs, payroll processing is generally delayed by a few hours.

R4.18 The payroll coordinator should verify that the information entered into the payroll master file by the supervisor of operations is correct and that the payroll master file is updated in a timely manner. Copies of all appointment letters and City ordinances affecting salary rates should be provided to the payroll coordinator as soon as the letters and ordinances are authorized. Providing copies in advance to the payroll coordinator will help prevent delays in payroll processing. In addition, the documentation can be used to check the accuracy of the payroll time sheet and personal data sheets submitted for processing by the departments.

F4.21 Changes in payroll deductions must be supported by a deduction authorization form and a completed personal data sheet. The changes are entered into the payroll master file by a data entry operator from the computer services department. A report is then printed that shows changes made to an employee's deductions. The payroll coordinator compares the report to the employee's deduction authorization form to ensure changes were entered correctly.

The payroll coordinator is to note pre-determined deduction codes on the personal data sheet to indicate which deductions are being added, changed or deleted. However, there is not a specific code for all of the various types of deductions that the City processes. If there is no pre-determined deduction code for a particular deduction that has been approved by the finance supervisor, the computer services director makes a decision on whether to create a code in the system for that deduction. If a decision is made not to create another deduction code, that particular deduction is coded under a miscellaneous code. Because more than one type of deduction is currently coded to the miscellaneous code, the payroll coordinator must manually review and sort the various deductions to generate the deduction checks. During a review of FY 1998 deductions, it was noted that some types withheld by the City on behalf of the employees are not mandatory deductions. See **F4.5** for additional information on deduction checks.

R4.19 The City should make sure that the finance supervisor has input into whether a particular deduction should be tracked separately, lumped into the miscellaneous code or not processed by the City. Also, the City should consider reviewing the deductions currently processed via specific codes and in the miscellaneous category to differentiate between mandatory and non-mandatory deductions. Only mandatory deductions should be processed through the payroll system. The City should consider having the employee handle non-mandatory deductions.

Check Distribution and Direct Deposit

F4.22 Currently, the City does not offer its employees direct deposit. However, according to the deputy director of finance, the City is in the process of researching the options associated with direct deposit in order to determine benefits to the City and its employees. The City sent out a request for proposal for banking services in April 1999. One of the specifications in the request for proposal addressed direct deposit capability.

R4.20 The City should continue to pursue direct deposit and should consider requiring all employees, existing and future, to use direct deposit. The City should consider negotiating this provision in future union contracts. Other options include paying employees hired after a certain date via direct deposit or giving the City the option of paying all employees via direct deposit if at least 75 percent of employees represented by a negotiated contract use direct deposit. Modifying the payroll lag time to two weeks as discussed in **R4.12** can help facilitate the timely submission of accurate payroll information to the financial institution.

Financial Implication: Assuming 100 percent participation in direct deposit, the maximum savings in transaction fees would be approximately $1,205 each fiscal year, based on a four cent cost savings applied to the 30,143 paycheck transactions occurring in FY 1998. The 30,143 transactions include regular, special deduction and manual checks. The use of direct deposit can reduce the cost of processing payroll checks, streamlines bank reconciliations and helps minimize security risks. Direct deposit would also help to eliminate resources spent on early pickup of paychecks.

F4.23 In general, payroll checks are printed in the finance department. Paychecks are picked up by the departmental payroll clerks at the finance department on Thursday afternoon or Friday morning. Employees who work second shifts are provided with paychecks that Thursday afternoon. According to the acting payroll coordinator, paychecks are provided to these employees one day in advance as a courtesy to allow them to deposit the funds prior to the weekend. This appears to be a practice that has been in place at the City for a long time. Paychecks for the remaining employees are distributed to them on Friday.

Employees can make special requests to obtain their paychecks through other means. Checks can be picked up in advance on Thursday if the employee had turned in a note in advance, signed by the supervisor, stating that the employee is scheduled to be off on Friday. Employees pick up these checks directly from the finance department.

R4.21 If the City requires all employees, existing and future, to use direct deposit, there would no longer be a need to expend resources to manually distribute paychecks. This would allow the departmental payroll clerks and finance department staff to perform other necessary duties. If the City does not require all employees to use direct deposit, the City should discontinue

the practice of allowing paychecks to be picked up on Thursdays. All paychecks should be distributed on Friday. This would allow departmental payroll clerks and finance department staff to perform other necessary duties on Thursday.

F4.24 Once the paychecks have been printed, the payroll coordinator sorts them by the respective departments. In addition, all deduction checks are sorted, manually stuffed into envelopes, and mailed each pay period. The city does not use a self-mailer.

R4.22 The City should investigate the feasibility of printing paychecks, direct deposit notices, W-2's and 1099's with self-sealing mailers. This would reduce the need for check stock, paper and envelopes. The equipment could also be used for purchase orders, vendor payments and other City printing needs. Use of the machine would result in time savings for the payroll coordinator. Additional time savings could be generated from using the machine for purchase orders and vendor payments. This would allow City staff to focus on other necessary duties. See the **procurement** section of this report for a related recommendation.

Financial Implication: The **procurement** section of this report discusses the various costs for purchasing or leasing a self-sealing machine, as well as the potential labor savings from the elimination of manually stuffing vendor payments. An additional labor savings of approximately $1,000 annually may be realized from the reduction in manual effort printing checks and stuffing envelopes.

Financial Implications Summary

The following chart represents a summary of the annual cost savings and implementation costs discussed in this section. For the purposes of this chart, only recommendations with quantifiable financial impacts are listed.

Summary of Financial Implications for Payroll

Recommendation		Annual Cost Savings	Implementation Costs
R4.1	Implement automated time and attendance system		$70,250 (one time) $5,670 (annual)
R4.6	Eliminate manual effort in printing deduction checks	$1,000 [1]	
R4.15	Eliminate duplicate activities in the shop division of the water department	$11,400 [1]	
	Combine payroll and procurement duties in the water department	$24,000 [2]	
R4.20	Maximize use of direct deposit	$1,205	
R4.22	Eliminate associated payroll manual effort from implementation of equipment for printing and self sealing mailers. See the **procurement** section of this report for implementation costs and other labor savings.	$1,000 [1]	
	TOTAL	**$38,605**	**$75,920** [3]

[1] Savings of deployed costs. Deployed costs are costs which would no longer be connected to the specific task but would continue to be absorbed elsewhere within the City.
[2] The adoption of the majority of the recommendations in this report could allow for the combination of payroll and procurement duties under one clerk position.
[3] Implementation costs include $70,250 of one-time costs and $5,670 of annual costs.

Numerous recommendations contained within the financial systems section have financial implications associated with them, however, they are not presented in this summary as the dollar amounts associated were difficult to quantify.

Conclusion Statement

The City of Youngstown is currently processing its payroll using many manual processes and old technology. There is significant room for improving the efficiency and effectiveness of the City's payroll operations. Improvements in the utilization of technology, streamlining of processes and elimination of duplication of efforts would allow for increased productivity and better use of limited resources.

The current payroll processes at the City are highly manual and labor-intensive. Only one of the larger departments reviewed utilized electronic submission of payroll data. Also, the collection of time and attendance and leave information varies from department to department. Contributing is the lack of documented standard procedures and forms. The development of standardized procedures and forms and implementation of an automated time and attendance system could provide the City with many benefits.

In addition, although the City has limited resources, there are many manual processes that involve duplication of effort. For example, some departmental payroll staff are performing functions manually that are being performed by central office payroll staff. There is also duplication of effort in tracking and maintaining payroll information within some departments. Furthermore, certain functions performed by the existing payroll system are being duplicated manually.

The current payroll system was originally developed in 1975 and is over 20 years old. The limited functionality of the system contributes to certain processes being performed manually by City staff. For example, the system currently only tracks sick and vacation leave, even though there are several other major types of leave being accrued and used by City employees. In addition, over 1,300 deduction checks were processed manually in 1998 because this functionality is not currently available. Although the existing payroll system could be enhanced in-house, given the staffing level in the computer services department, it is somewhat questionable whether the City would be able to support significant enhancements to the current system. The City should investigate options such as the purchase of a new system or contracting out payroll processing to obtain enhanced system functionality which could help streamline processes.

Due to numerous special pays, the City processes many payroll runs, sometimes at a rate of one per week. Reducing the number of payroll runs could also help streamline operations. Many errors are noted during payroll processing due to various factors such as lack of formal training and a procedures manual. According to City staff, the errors noted are corrected prior to finalization of the payroll. However, there is still the risk of inaccuracies in the City's payroll data due to the short one week lag in payroll processing. The City should consider a two week lag in payroll processing to allow for timely detection and correction of payroll discrepancies. Additionally, the City is currently pursuing direct deposit for its employees. A two week lag would facilitate the submission of accurate payroll information to the financial institution.

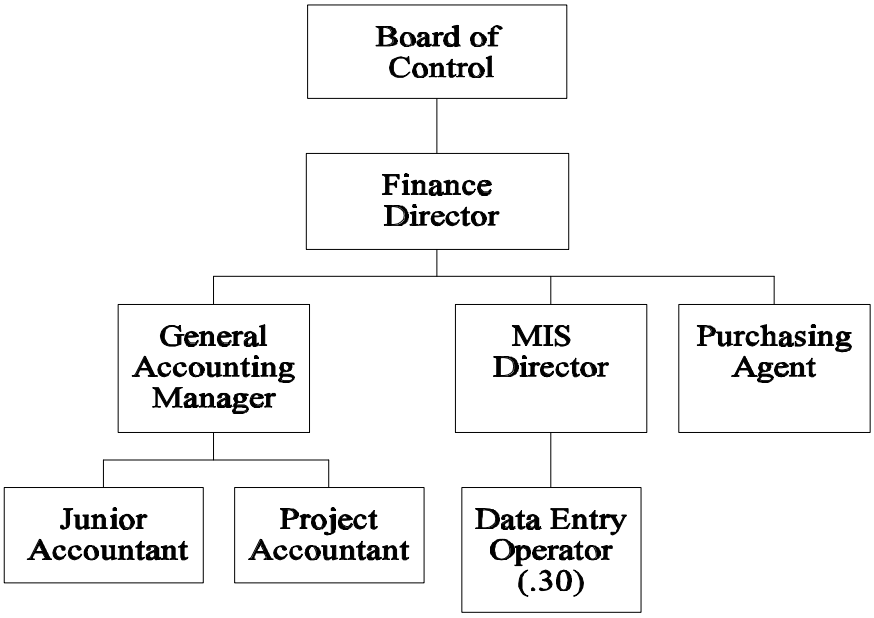
Procurement

Background

This section focuses on the purchasing and vendor payment functions of the finance, police, fire, water and waste water departments within the City of Youngstown.

Organizational Chart and Staffing

The organizational chart below depicts the reporting relationships for the positions which have certain responsibilities for the purchasing and vendor payment functions. Additionally, the City has adopted a decentralized approach to purchasing which requires other personnel, such as department heads and secretaries, to be involved in the process.



Organization Function

The City does not utilize a centralized purchasing department, nor does it maintain a central warehouse operation. As a result, each department is responsible for procuring its own goods and services as well as storing items that are not immediately consumed. Specific functions performed by various individuals in procuring goods and services are listed below.

The functions performed by the general accounting manager and her staff include:

- Entering purchase orders and vendor invoices into the general accounting and financial reporting system (GAFRS)
- Processing vendor payments and expense reimbursements
- Certifying availability of funds for requested purchases
- Issuing form 1099's to qualifying vendors

The functions performed by the purchasing agent include:

- Preparing bid specifications and overseeing the competitive bidding process
- Conducting periodic auctions of surplus equipment and supplies

The functions performed by the MIS director and his staff include:

- Printing all checks in payment of vendor invoices
- Generating various reports used in the purchasing process
- Periodically entering purchase orders and invoices into the accounting system

The functions performed by various individuals within the departments include:

- Identifying and selecting sources of goods and services
- Negotiating vendor prices and terms for purchased goods and services
- Preparing the purchase order form
- Placing orders with adequate lead-time for delivery
- Coding the transactions on the requisition to the correct general ledger fund and accounts
- Receiving, inspecting and storing supplies and materials delivered to the department
- Authorizing payment for goods and services received

Summary of Operations

The City council has not adopted formal policies regarding the purchasing process. However, the finance department has created informal policies designed to ensure that the departments are receiving favorable prices on purchased items. These policies include requiring three informal quotes for items having a single or aggregate cost exceeding $2,500 but less than $15,000. Furthermore, the draft policies are consistent with ORC, and require proposed expenditures over $15,000 to be competitively bid. Because cooperative purchasing results in savings associated with volume buying, the City participates in the state purchasing consortium and encourages the departments to utilize this purchasing mechanism.

To acquire goods, an employee must first receive verbal approval from their immediate supervisor and a purchase order number from the department clerk. Each department has a clerk who is assigned the responsibilities of issuing purchase order numbers and maintaining budgetary information. Using the assigned purchase order number, the employee is permitted to contract with the vendor. To maintain some control over the purchasing process, the department clerk uses a manual log to record the date the order was placed, the vendor, the dollar amount, the estimated freight cost and the location where the goods are to be delivered.

All vendor invoices are sent to the department clerk who uses the information to complete a purchase order. The department clerk then forwards both documents to the department head for a signature indicating satisfaction with the delivered goods. The documents are then sent to the junior and project accountants for processing. The City has implemented a system of automated flags that prevent further processing of invoices if sufficient funds are not available in the budget of the line-item being charged. The purchase order will be returned to the originating department, which must make the necessary modifications to the line-item accounts to allow for processing. The physical movement of the purchase order and invoice is done through inter-office mail.

There is no central warehouse operation. The departments are responsible for coordinating all deliveries and inspecting the accuracy and condition of orders received at their locations. Additionally, the departments are also responsible for resolving issues involving the return or replacement of delivered goods and other vendor related problems.

Financial Data and Statistical Data

Table 5-1 shows calendar year 1998 purchased items, excluding salaries, benefits, utilities and insurance, by category within all funds as compared with calendar year 1997. Due to the decentralized nature of the City's purchasing procedures, reasonable explanations for the significant changes could not be provided.

Table 5-1: City Purchases

	1997 Actual Expenditures	1998 Actual Expenditures	Percentage Increase (Decrease)
PURCHASED SERVICES:			
Professional Services	3,181,333	4,406,567	38.5%
Real Estate	333,967	375,680	12.5%
Travel, Seminars, Etc.	97,088	84,437	(13.0%)
Advertising and Printing	59,134	49,645	(16.1%)
Repair Services	1,348,698	913,154	(32.3%)
Maintenance Services	732,913	341,132	(53.5%)
Other Operating Services	2,375,739	2,509,785	5.6%
Total Purchased Services	$ 8,128,872	$ 8,680,400	6.8%
MATERIALS AND SUPPLIES:			
Office Supplies	385,085	319,480	(17.0%)
Equipment	1,151,943	639,840	(44.5%)
Gas and Lubricants	359,335	329,733	(8.2%)
Postage and Shipping	291,006	266,146	(8.5%)
Other Materials & Supplies	2,411,560	2,126,736	(11.8%)
Miscellaneous	68,355	15,704	(77.0%)
Total Materials and Supplies	$ 4,667,284	$ 3,697,639	(20.8%)
TOTAL OF THIS TABLE	**$ 12,796,156**	**$ 12,378,039**	**(3.3%)**

Source: 1997 and 1998 expenditure reports provided by the finance department

Performance Measures

The following performance measures were used to analyze the City of Youngstown's purchasing and vendor payment functions:

- Adherence to purchasing policies and procedures
- Appropriateness of the bidding process
- Adequacy of the use of term contracts or other favorably priced contractual instruments
- Appropriateness of the level of decentralized purchasing
- Adequacy of the automated purchasing system
- Effectiveness of internal controls over purchasing
- Existence of tracking systems for inventory and fixed assets
- Assessment of cycle time for issuance of vendor payments

Findings / Commendations / Recommendations

F5.1 Youngstown does not have formal, City council approved purchasing policies. The only policies governing City purchases are draft purchasing policies developed by the finance department and distributed among the various departments within the City. Although these policies have never been formally approved by the City council, the departments have been instructed to refer to and comply with the procedures when making purchases. All of the departments selected for review had copies of the draft policies. The following is a summary of those policies.

- Each department in the City is responsible for the acquisition of goods and services that do not require formal bidding. The purchasing agent is responsible for the acquisition of goods and services that require formal bidding.

- Purchases of any item or group of directly related items having a single or aggregate cost which does not exceed $2,500 require the issuance of a purchase order.

- Purchases of any item or group of directly related items having a single or aggregate cost in excess of $2,500 but not exceeding $15,000 are required to have three written informal quotes to be submitted to the board of control for approval. Professional, maintenance and service contracts follow the same process with the exception that the department head has the flexibility to receive three competitive price proposals or three request for qualification statements rather than informal quotes.

- Purchases of any item or group of directly related items having a single or aggregate cost which exceeds $15,000 are required to be adopted through ordinance by the City council and competitively bid in accordance with ORC § 735.05. Professional, maintenance and service contracts follow the same process with the exception that the board of control determines whether the purchasing agent is to solicit competitive price proposals or request for qualification statements.

- Through formal ordinance, the City of Youngstown participates in the State of Ohio's Cooperative purchasing program.

In essence, City council is responsible for reviewing and approving ordinances that will allow the purchasing agent to begin the competitive bidding process for items and services with a cost in excess of $15,000. The board of control is responsible for approving the selected vendors in these situations. The board of control is also responsible for reviewing and approving all purchases for items and services with a cost in excess of $2,500 but less than $15,000. For purchases with a cost below $2,500, the individual departments are allowed to contract with the preferred vendor without receiving competitive price proposals. A review

of the minutes from the board of control meetings indicate that the actual practices of the City council and the board of control are consistent with the responsibilities.

F5.2 In procuring items that are required to be competitively bid (costing more than $15,000), the purchaser must first obtain approval to advertise from the City council. Upon receiving this authorization, the City will place an advertisement once a week for at least two weeks in a newspaper of general circulation within the City. The bids are opened at noon, on the last day of filing, by the purchasing agent and recorded by the executive secretary to the director of finance and publicly read. Once the board of control has approved a vendor, the purchasing agent will notify the chosen vendor and make arrangements for performance of the contract. Vendor selections are made based on the lowest and best bidder. In accordance with ORC § 735.051, cities can waive the competitive bidding requirements to rectify situations perceived to be real and present emergencies.

During 1998, competitive bids amounting to approximately $672,000 were solicited for police equipment, two fire engines, playground equipment, crime lab forensic analysis, computer stock paper and various other items. During a review of minutes from board of control meetings, only two instances were noted where it appears the City waived the competitive bidding requirements due to emergencies associated with water line breaks ($16,790) and road work ($30,625) within the City.

F5.3 The draft policies require purchases over $2,500 but not exceeding $15,000 to have three written informal quotes to be submitted to the board of control for final approval. Based on discussions with department personnel and a review of the minutes from board of control meetings, it appears there is some inconsistency at the department level in complying with these policies. For example, some of the departments consistently obtain three or more written quotes for all items including purchased services, while other departments receive two or less quotes for only material and equipment purchases. Furthermore, the departments obtain and document the vendor quotes in varying ways ranging from no documentation to formal vendor responses sent on company letterhead.

R5.1 In order to eliminate the inconsistences between the practices of the departments, formal purchasing policies should be adopted by the City council and enforced by the board of control and the finance department. The adopted policies should clearly distinguish between purchases of tangible goods and contracts for professional services. In making this distinction, City council should consult with the finance director, the purchasing agent and other personnel in an attempt to develop thresholds, approval levels and procedures which are appropriate for each type of purchase. Once the policies have been adopted, the board of control and the finance department should not allow the departments to make purchases unless they have complied with the policies.

Additionally, current City practice only requires the departments to receive three informal quotes when purchasing tangible goods and professional services costing between $2,500 and $15,000. In determining the appropriate procedures for the new policies, the City should consider utilizing formal invitations to bid rather than informal quotes for the more significant items in this range. This will ensure that items with a significant cost are being purchased in a competitive environment and that vendor selection is made on an objective basis.

F5.4 The only purchasing consortium the City belongs to is the Ohio Cooperative Purchasing Program administrated by the Ohio Department of Administrative Services, Office of the State Purchasing. The program allows direct buying from a vendor who has an Ohio Cooperative Purchase Contract number without undergoing a bidding process. During the past year, the City purchased approximately $435,000 worth of goods through the cooperative consisting primarily of automobiles and copy machines.

Other cities were identified that are utilizing additional purchasing co-operatives to procure commonly used items. The City of Springfield utilizes the Southwest Ohio Purchasing Group to procure items like road salt and glass beads. The City of Akron along with the University of Akron, the Akron City School District, the Canton City School District and a number of smaller cities and townships in the area successfully formed the County, University, Educational Association (CUE). Members belonging to CUE are able to procure custodial and maintenance supplies as well as paper products and office supplies at discounted prices. Based on submitted quotes, vendors are selected by committee and approved by the general membership.

R5.2 While the Ohio Cooperative Purchasing Program provides the City with discounts when purchasing office equipment and automobiles, Youngstown is not involved in such a program for purchasing other commonly used items. As indicated in **Table 5-1**, the City of Youngstown is spending a significant amount of money ($3.7 million) for materials and supplies. In order to maximize the value of future expenditures, the City should explore the possibility of entering into a purchasing consortium with other local entities like Youngstown State University and the Youngstown City School District. This would enable the City to receive common items that are competitively priced without going through the bidding process. Additionally, this would save the departments the time and effort associated with developing bid packages and quotation requests.

F5.5 To obtain discounts and other favorable contract terms, the City subjects some commonly used items to competitive bidding. In June, the purchasing agent contacts each department in an effort to develop bid specifications for common items that will be used throughout a two year period. These items are then subjected to competitive bidding with the lowest and best vendor given a contract for a period of two years beginning in September. All winning bids are published in a catalog titled "City of Youngstown Annual Contracts" which is distributed

to the departments within the City. A department wishing to make a purchase is first required to consult the catalog to determine if the purchase is covered by a competitively bid contract. If there is an awarded vendor for the purchase, then the department is required to use that vendor. If there is not an awarded vendor, then the department can negotiate with a vendor of its choosing. Examples of items that have been competitively bid in the past include traffic signs, uniforms, janitorial/maintenance supplies, light bulbs, flags, paint, batteries, chemicals and automotive parts. However, as indicated in **Table 5-2**, contracts for office supplies continue to be negotiated on an individual basis by each department.

Table 5-2: Comparison by Department of Vendors Used for Office Supplies

	Finance Department	Water Department	Fire Department	Police Department	Waste Water Department
Office Supply Purchases	Copy Paper, Pens, Pencils, Scissors, Legal Pads, White-out, Binder Clips, Staples, Etc.	Appointment Books, Adding Machine Tape, Glue, Calendars, Binder Clips, Legal Pads, Staples, Correction Fluid, Copy Paper, Etc.	Pens, Pencils, Copy Paper, White-out, Legal Pads, Calendars, Envelopes, Clip Boards, Diskettes, Etc.	Pens, Pencils, Copy Paper, White-out, Legal Pads, Calendars, Envelopes, Clip Boards, Diskettes, Etc.	Graph Paper, Legal Paper, Pens, Pencils, High lighters, Copy Paper, Envelopes, Printer Supplies, Tape, Staples, Paper Clips, Etc.
Vendors Used for Office Supplies	DeBald & Co., Great Lakes Paper, Phoenix Office Supply, Matrix Data, Global Supplies, Reliable Office Supplies, Staples, Lowes, American Paper, The Printing Depot	Debald & Co.	DeBald & Co.,Office Depot, Office Max, Valley Office Equipment	DeBald &Co., Valley Office Equipment	DeBald & Co., Phoenix Office Supply, Staples

Source: Interviews with various departments within the City

In purchasing office supplies and other common items, the peer cities of Canton and Lorain subject them to competitive bidding and negotiate annual contracts with the lowest bidder. The City of Springfield recently used competitive bidding to negotiate a three year Just-In-Time (JIT) contract with Office Depot. Under the terms of the agreement, Office Depot established a direct computer link with the City so that orders for supplies and materials could be placed electronically. Once an order is placed, Office Depot is required to deliver the goods in a satisfactory condition within twenty-four hours. Through the use of competitive bidding and term contracts the deputy finance director/purchasing agent of the City of Springfield indicated that the JIT agreement has saved an estimated 10 to 20 percent off the vendor's retail prices. A performance audit conducted on South-Western Public Schools indicated that they had also implemented JIT agreements similar to the City of Springfield and were realizing savings ranging from five to 30 percent.

C5.1 By competitively bidding some common items used by the departments, the City is able to utilize its buying power to obtain discounts and other favorable purchasing terms.

R5.3 While the City is utilizing its purchasing power to obtain discounts on some common items used by the departments, there are items like office supplies where each department continues to separately identify, negotiate with and select its own vendors. Furthermore, as indicated in **Table 5-2**, the individual departments analyzed in this section of the performance audit are oftentimes negotiating with different vendors to obtain the same or similar types of office supplies. **Table 5-2** also indicates that there are instances where each department is separately negotiating with the same vendor (Debald & Co.) to obtain office supplies. Given that the City spent a significant amount of money for office supplies last year (approximately $319,000, see **Table 5-1**), they should attempt to maximize the value received by using the competitive bidding process to negotiate JIT agreements for office supplies. Term contracts could potentially be used to allow for larger discounts and to hedge against price fluctuations. These techniques would not only save the City money, but it would also save the City's departments considerable time associated with researching office supply items, locating vendors and negotiating purchasing terms.

Financial Implication: Assuming that Youngstown can negotiate JIT agreements similar to the City of Springfield and South-Western Public Schools, and they could realize 20 to 25 percent discounts on office supplies, they could potentially save between approximately $63,500 and $79,500 on an annual basis.

F5.6 There are no methods in place to monitor vendor performance on a City wide basis. Therefore, the potential exists that a department will contract with a vendor that may have caused another department significant problems. Discussions with the individual departments indicate that they informally monitor vendor performance by noting those vendors who have performed poorly in the past and not making future purchases from them. The only controls over inappropriate pricing are provided through the approval process and the familiarity of the purchaser with current market prices.

R5.4 Through the use of software or by a manual system, the City should implement a centralized vendor performance monitoring program. Information that should be gathered includes, but is not limited to: quality of goods, timeliness of deliveries, vendor's responsiveness to problems, goods continually being out of stock, price variances between catalog and invoice and complaints concerning vendors expressed by the departments. Such a centralized program would provide all the departments with the information necessary to not contract with vendors who have performed poorly in the past.

F5.7 According to the purchasing agent, the City only utilizes requests for proposals in contracting for purchased services approximately two or three times a year. In the recent past, requests for proposals have been used to secure the services of an architectural/interior design firm to

renovate the City council chambers and for strategic planning and program administration services in an effort to reduce the number of homeowners on the housing rehabilitation list. Included within the request for proposals are the evaluation criteria used to make vendor selections. Criteria used to evaluate past proposals include price, work experience, profiles of past work, current work load, special requirements of the project and various other standards. Common items that the City could begin to utilize requests for proposals when forming contracts include but are not limited to professional and technical services such as attorneys, engineers and consultants, as well as property services such as auto repair work, garbage removal and cleaning services.

R5.5 Within the purchasing policies to be adopted in accordance with **R5.1**, the City council should formally address the use of requests for proposals in contracting for purchased services. More specifically, a policy should be adopted which would require greater use of requests for proposals by establishing dollar thresholds as well as defining the types of purchases that would be subject to competitive pricing. The finance department should gather statistics to devise these thresholds, attempting to cover a majority of the annual purchased service expenditures. More frequent solicitations of requests for proposals for purchased services will help ensure that the City procures its services at the most efficient price and that vendor selection is made objectively. Enhancements of this nature are especially important considering the lack of a centralized purchasing department.

F5.8 Due to the nature of the City's current purchasing process, which allows the departments to contract with vendors without securing a valid purchase order beforehand, the departments rarely utilize blanket purchase orders. Of the departments reviewed, waste water was the only one identified that regularly utilized blanket purchase orders to procure items like copper pipes, cast couplings, valves and fire hydrant equipment. Blanket purchase orders utilized by the waste water department in 1998 included one issued to Northwest Controls for $50,000 and two issued to Phoenix Electric for $10,000 each. The waste water blanket purchase orders are renewed by the board of control on a yearly basis in April. Also, due to the nature of the current process, emergency purchase orders are rarely issued.

F5.9 Currently, no individual within the finance department is responsible for issuing purchase order forms to the departments. The pre-numbered purchase order forms are maintained within the finance department and can be signed out by anybody on an as needed basis. The employees taking the purchase order forms are supposed to sign a notepad indicating the date, the purchase order numbers taken, the department the employee represents and the employee's signature. However, no one within the finance department is responsible for ensuring that this is being performed. If at year-end, the departments have excess purchase orders, they are permitted to carry them over to the next year. The finance department does not perform, nor require the departments to perform reconciliations between the beginning and ending balances of purchase order forms maintained at the departments.

At the department level, the purchasing process is initiated by an employee wishing to make a purchase and culminates with the issuance of a purchase order after the receipt of a vendor invoice. To make a purchase or have a service rendered, the departmental employee must obtain verbal approval from the immediate supervisor and a purchase order number from the department clerk. Assuming supervisor approval is granted, the employee is permitted to use the assigned purchase order number to negotiate a purchase contract with a vendor. Once the purchase has been verbally finalized, the employee communicates the necessary information to the department clerk for notation in a manual log. Each department/division has an individual that serves as the department clerk and is responsible for issuing purchase order numbers and maintaining a manual purchase order log detailing the date an order was placed, the vendor, the amount and the location of the goods or services.

All vendor invoices are received by the department clerks who use the detailed information to manually complete the purchase order. In completing the purchase order form, the department clerk assigns the organization and sub-object codes to which the purchase is to be charged. The department head then authorizes the finance department to make payment by signing the purchase order form, thereby verifying that the services were performed and/or authenticating that the merchandise listed on the purchase order and the invoice were actually received. Upon receiving the department head's final approval, the department clerk distributes the copies of the purchase order and invoice to the applicable personnel/departments.

By issuing purchase orders after receiving the vendor invoices, the City is completely bypassing the encumbrance process. Not only is this a direct violation of ORC § 5705.41 (D), but it also severely weakens the City's internal controls over the purchasing process. Encumbering funds prior to making purchases is imperative because it ensures that the funds will be available once the purchase agreement has been entered into, it provides management with an accurate fund balance with which to make future purchasing decisions and it allows management to easily identify significant variances between the actual and estimated cost for making a purchase.

As a direct result of the City's practice of foregoing the encumbrance process, Youngstown's financial audit disclosed that calendar year 1997 was closed with deficit balances in 34 funds and expenditures exceeded appropriations in 17 funds. Since that time, it does not appear that the City's purchasing procedures have improved, because only 20 percent of the purchase orders that were selected for testing during this performance audit were properly issued. The finance director indicated that the reason the City is not using encumbrance accounting is due to a lack of adequate staffing in the finance department.

F5.10 Each department monitors appropriation availability by maintaining a manual journal or a computerized spreadsheet detailing the amounts budgeted, received and spent, a general

description of each purchase, the date, the purchase order number and the remaining account balance for each line-item. The department clerks are responsible for updating the journals/spreadsheets for each purchase after it has been verbally finalized by the department employee.

On a monthly basis, the finance department prepares reports for each department detailing the total amount appropriated, expended and ending balance for each object. In order to verify that the purchase information posted to the accounting system by the finance department is correct, the department clerks perform manual reconciliations between the department records and the monthly reports. Although some of the departments have on-line inquiry or read-only access to budgetary information, due to a lack of comfort with the features, only a minority are utilizing these capabilities.

F5.11 Because the City allows departmental employees to identify, negotiate with, receive bids from and select vendors, the purchasing process can be described as being decentralized. In a centralized purchasing environment, the City would have a purchasing department that would perform these functions. In addition to the deficiencies noted in **F5.3, F5.5, F5.6, F5.7** and **F5.9**, the City's current decentralized purchasing environment is inefficient when compared to a functional centralized purchasing process for the following reasons:

- **!** With the absence of formal, City-wide policies, the finance department, the board of control and the City council must rely on the departments to objectively negotiate with and select vendors.

- **!** Individual departments currently receive informal quotes for purchases between $2,500 and $15,000. However, as noted in **F5.3**, there is inconsistency at the department level in complying with this policy. Greater savings as well as assurance that the policies are being complied with could potentially be achieved by having a centralized purchasing department receive formal invitations to bid.

- **!** Although purchases costing less than $2,500 represent a significant cost to the City, the individual departments are not currently required to receive any quotes for these items. This practice allows for the potential that a department will contract with a vendor that is not offering the lowest and best price. A centralized purchasing department would have the necessary time and resources to receive informal quotes for some of these items

  Decentralized purchasing requires stronger internal controls to ensure that the departments are complying with the policies. However, based on the results of this performance audit and past financial audits (**F5.24**), the City currently has significant internal control weaknesses which appear to have contributed to the inconsistent practices of the departments.

- Decentralized purchasing results in the City having to process a greater number of purchase orders and vendor invoices due to the lack of City-wide competitively bid contracts and other procurement devices. This is evidenced by **F5.5**, which shows that each department within the City is allowed to separately negotiate with many vendors for office supplies. In comparison, the centralized purchasing department within the City of Springfield negotiated one City-wide JIT agreement for office supplies. As a result, the City of Springfield only processed 1,832 vendor payments during 1998. The City of Youngstown processed 10,326 vendor payments during the same time period.

The finance director indicated that the reason the City has not established a centralized purchasing department is due to a lack of adequate staffing.

R5.6 The City should consider implementing a centralized purchasing process. In general, a centralized purchasing process saves money by subjecting more items to competitive bidding. A summarization of how centralized purchasing could work at the City follows. When making purchases for items costing more than $15,000, each department would continue submitting a detailed requisition to the purchasing agent for competitive bidding. For purchases less than $15,000, the procedures are going to depend on the new thresholds adopted by the City council. Assuming the current thresholds, items costing in excess of $2,500 but less than $15,000 would require the departmental employee to submit a requisition form to the department head who would approve the proposed purchase and forward the document to the purchasing department for processing. A buyer within purchasing would then utilize formal invitations to bid to receive the lowest and best price and would then transfer the necessary information to the junior accountant who would create a purchase order, encumber the funds and mail the purchase order to the selected vendor. Items costing less than $2,500 but greater than the lowest City council defined threshold (for example $500) would require the departments to submit to the purchasing department a properly authorized requisition. Once in purchasing, a buyer would review the requisition and receive three informal quotes. Upon selecting the lowest and best quote, the requisition would be transferred to the junior accountant for processing. To purchase items costing less than the lowest City council defined threshold (for example $500), the departments should submit a properly authorized purchase requisition indicating the preferred vendor that purchasing should contract with.

Based on an analysis of the peer cities it appears that Youngstown could operate a centralized purchasing department with approximately 4.0 FTEs (See **R5.8** for a discussion on staffing the purchasing department). The functions could be broken down as follows:

- The purchasing agent would function as the purchasing department supervisor. Additionally, the purchasing agent would continue to be responsible for competitively bidding all purchases costing in excess of $15,000.

- The City should establish a "Buyer" position within the finance department. Using the examples noted above, this person would be responsible for receiving all formal invitations to bid (between $2,500 and $15,000), assisting with requests for proposals and handling other tasks as defined by the purchasing agent..

- The City should establish another "Buyer" position within the finance department. Using the examples noted above, this person would be responsible for handling all informal quotations (between the lowest City council defined threshold and $2,500), assisting with requests for proposals and handling other tasks as defined by the purchasing agent.

- The junior accountant would generate all purchase orders and continue handling the data entry functions.

By establishing a centralized purchasing department, the objectivity of the vendor selection process will be enhanced, a greater number of items will be subjected to competitive pricing and department orders can be consolidated allowing quantity discounts to be negotiated. Additionally, the increased number of City-wide contracts negotiated through centralized purchasing will allow for a decrease in the number of issued purchase orders and vendor payments, resulting in strengthened controls and time savings associated with data entry. The financial implication associated with implementing centralized purchasing would be minimal if the City can reallocate existing resources. However, if the City is unable to do this, then additional staff may be needed. Both of these areas are further discussed in **R5.8**. (**F5.9** and **F5.11**)

R5.7 If the City determines that implementing centralized purchasing is not feasible, then they should modify the current process. More specifically, the City should immediately begin utilizing encumbrances when making purchases. The following is a general description of how the City could re-design its current decentralized manual purchasing process to eliminate deficiencies.

The project accountant should be assigned the responsibility of maintaining and accounting for all purchase order forms. At the beginning of the year, this individual should issue to the department clerks multi-part purchase order forms that are not pre-affixed with a purchase order number. This form will serve as the requisition until it is sent to finance where it becomes a purchase order upon the issuance of a purchase order number. At the department level, the clerks should be responsible for maintaining the forms and reconciling the beginning and ending purchase order form balances.

When making purchases, departmental employees should properly complete the multi-part purchase order form, which will include applicable account codes as well as supervisor approvals, and should submit them directly to the department head for verification that the requested purchase is for a proper public purpose. The purchase order form should then be sent to the junior accountant who would issue and affix a purchase order number and input it into the accounting system, effectively encumbering the funds prior to making the purchase. In either the centralized or the decentralized purchasing process, the City should continue utilizing its flags to prevent the encumbrance of funds if an insufficient amount is available. If the account is determined to have adequate funds to make the purchase, the document should then be submitted to the finance director for her approval and certification of availability of funds. If it is determined that insufficient funds are available, the junior accountant should return the forms to the departments, where line-item modifications must be made in order to resubmit the purchase order. Upon receiving the finance director's approval, the junior accountant should distribute the various copies of the purchase order in the following manner:

- The original copy is mailed to the vendor
- One copy is sent to the project accountant who will be responsible for vendor payments (see **R5.12**)
- Two copies are delivered to the department placing the order for use as a receiving copy and for departmental records
- One copy is maintained by the junior accountant for finance department records

In summary, the primary difference between the proposed process noted above and the current practice is the timing of when the City becomes obligated for the goods. In the proposed process, the City does not become obligated until after the department head has signed a purchase requisition approving the proposed purchase, the junior accountant has properly encumbered the funds and the finance director has signed the purchase order certifying the availability of funds. Under the current purchasing process, the City potentially becomes obligated as soon as the department head grants verbal approval.

If the City decides to continue utilizing a decentralized purchasing process, then the City council should formally adopt and include within the policies a purchasing process similar to the one noted above. Furthermore, the adopted policy should state that personnel and supervisors will be held personally liable for anything purchased without a properly signed and issued purchase order. The board of control should then ensure that these policies are being strictly enforced. (**F5.9**)

R5.8 By making the changes noted in either **R5.6** or **R5.7**, the integrity of the accounting system should be sufficiently improved to allow the departments to fully rely on it as the official purchasing record of the City. Therefore, once the purchasing process has been modified, the departments should discontinue all manual tracking of purchase information as noted in **F5.10**. Eliminating departmental tracking of purchase information would reduce the current duplication of work, thus saving time and effort on the part of the department clerks.

The finance department should offer training and develop a purchasing manual for all department clerks, supervisors and other interested personnel explaining how to fully utilize the on-line inquiry capabilities (see **F5.10**). Upon completing the training, the City should utilize the on-line capabilities to communicate all financial information. Not only will this save the finance and MIS departments the time associated with printing the monthly reports, but it will also aid in minimizing paper costs.

To address the finance director's staffing concerns (**F5.9** and **F5.11**), implementing either **R5.6** or **R5.7** as well as this recommendation would eliminate many of the duties currently performed by the department clerks enabling some of them to assist in processing purchase orders, vendor payments and carrying out other purchasing related functions. If the City chooses to establish a centralized purchasing department, then they should initially attempt to fill the two buyer positions by reallocating the department clerks. However, if the City determines that it is not feasible to use the department clerks to fill both positions, then they should fill one of the positions with a department clerk and investigate the possibility of hiring an additional individual. Between the existing staff within the finance department and the reallocation of the department clerks, no additional staff should be needed if the City chooses to modify the current decentralized purchasing process. (**F5.9, F5.10** and **F5.11**)

Financial Implication: The City of Springfield currently pays its buyers a beginning annual salary of approximately $25,000. Assuming Youngstown can hire a buyer at a similar rate and that benefits constitute 30 percent of the annual salary, the cost of hiring an additional staff member for the purchasing department will be approximately $32,500. This additional cost could be offset by the savings identified in **R5.3**. It should be noted that **R5.3** only addresses potential savings related to office supply purchases; additional savings should be realized in other types of expenditures as well.

F5.12 The current and proposed **(R5.6** and **R5.7)** purchasing processes at Youngstown are both highly manual and paper-driven. In general, manual purchasing systems are inefficient in that they require a greater number of staff, waste paper and other resources, and have longer lead-times in processing transactions. On-line purchasing would rectify all of these deficiencies. Properly using on-line purchasing allows most entities to minimize paper costs while

processing requisitions and purchase orders at a much faster rate with less FTEs than the manual counterpart. Despite an awareness of these advantages, the City currently does not have a purchasing module within the GAFRS accounting system nor has it conducted any formal investigations into the feasibility of implementing one. See the **Technology** section of this report for additional discussions concerning the GAFRS accounting system.

R5.9 It is imperative that the City fully understand and implement a properly designed manual purchasing process similar to those described in **R5.6** and **R5.7**. Additionally, it is equally important that the supervisors enforce the process by not allowing purchases to be made unless the personnel comply with the procedures. Once the City has achieved this status, the finance department should begin investigating, and ultimately implementing, an automated purchasing system. Features of automated purchasing systems include on-line remote requisitioning, accessibility of management to the status of requisitions, on-line vendor selection, automatic construction of purchase orders and automatic encumbering of funds. By automating the manual purchasing process, the City will achieve greater efficiency, improved management of the purchasing function and reduced costs. If the City automates the purchasing process prior to the employees understanding and complying with the proper procedures, then it is doubtful that the City will realize the degree of benefits necessary to justify the investment.

Financial Implication: Based on discussions with software vendors, an automated purchasing software package would cost approximately $25,000. However, this figure does not include the consulting/conversion costs of implementing the system. These costs would be directly affected by the level of involvement of the City.

F5.13 Youngstown does not have a comprehensive purchasing manual for use either by staff within the finance department who process purchase orders and vendor invoices or other departments within the City. With the exception of the draft purchasing policies, there is no documentation available to serve as a resource to City personnel in understanding basic requirements of requisitions, purchase orders and other procurement functions.

R5.10 The City should consider developing a comprehensive purchasing manual in an effort to assist users in complying with the adopted policies and procedures. This manual should be designed to provide the departments with a better understanding of the proposed **(R5.6** and **R5.7)** procurement cycles. The manual should formalize dollar thresholds, delineate approval paths, reiterate statutory and charter requirements for competitive bidding, blanket purchase orders and certification of funds, and describe emergency purchasing procedures. Furthermore, the manual should provide users with step by step instructions that include copies of computer screens and command prompts necessary for using the on-line inquiry capabilities. Each department should be provided with at least one copy, distributed at a meeting during which

the contents are reviewed in detail. Proper support of the manual is critical because of the large number of staff who initiate and authorize purchases. This manual should be updated and distributed to all departments on an annual basis or upon significant enhancements.

F5.14 The City does not have formal City council adopted policies that define what items are considered fixed assets. However, the finance department has draft informal policies that state that an item is considered a fixed asset if it has a unit cost of $1,000 or more, has a useful life of more than one year and is not a repair or supply item. Prior to 1997, the City used FACTS software to maintain fixed asset information. However, according to the current finance supervisor, the FACTS software became obsolete in that the vendor (Valuation Resource Management) had developed a newer version called FACTS PLUS and was no longer offering support for the older software. The current finance supervisor also indicated that the previous finance supervisor was uncomfortable with the FACTS software and did not feel that it was accurately maintaining the fixed asset information. As a result, in 1997 the City stopped using the FACTS software and began using lotus spreadsheets to track fixed asset information by department. The City is currently in the process of implementing the FACTS PLUS software which is supported by the vendor and will utilize a bar code system as well as digital photos to maintain the fixed asset information. Additionally, the current finance supervisor indicated that she feels comfortable with the features of the new software.

Prior to 1997, acquired goods meeting the descriptions of fixed assets were affixed with pre-numbered tags used to account for the assets in the FACTS software and to assign and monitor responsibility for the items. However, when the City stopped using the FACTS software, they also ceased the practice of tagging new assets. According to the finance supervisor, when the new system is fully implemented, assets acquired during 1997 and 1998 will be tagged during an inventory appraisal to be performed by Valuation Resource Management. The inventory appraisal is being performed because the City wants the initial asset values entered into the new system to be accurate.

When an asset has been acquired, damaged, sold, stolen or moved from one location to another, the departments are required to complete a form that is filed with the finance supervisor. The City does not currently perform year-end reconciliations between the spreadsheet records and the fixed assets actually maintained at the departments. Due to incomplete and/or inaccurate records within the fixed asset systems, the City was unable to provide historical cost information for land in 1996 and 1997 which led to citations from the financial auditors. To address this situation, the finance supervisor indicated that the City is currently developing a complete listing of all parcels of land along with the associated cost so that the data can be input into the FACTS PLUS system when implemented.

R5.11 While it appears that the City is moving in the right direction with the implementation of the FACTS PLUS software and other proposed practices, there are still some fixed asset policy issues which should be addressed. Specifically, the City council should adopt a formal policy which clearly defines what items are considered fixed assets and how the City is to account for them. Within the description of how to account for the fixed assets, the City council should require that reconciliations between the physical assets and the records maintained by the FACTS PLUS tracking system be performed on an annual basis. By combining the FACTS PLUS tracking system along with strengthened fixed asset policies, the City will be in a position of being able to maintain proper control over its assets. This is important because accurate fixed asset records provide reliable information to support amounts reported in the City's GAAP financial statements, aid in establishing adequate insurance coverage and promote accountability. Furthermore, accurate records allow the City to adequately assess its needs when procuring fixed assets, thereby reducing the risk of purchasing unnecessary or duplicate items.

Vendor Payments

F5.15 In general, the vendor payment process at the City is manual and inefficient. All vendor invoices are sent to the department clerks where they are used to create a purchase order. The vendor invoice and purchase order are then forwarded to the department head who reviews and signs the purchase order indicating that the goods have been received and the amount billed is correct. The purchase order and invoice are then returned to the department clerk who identifies and resolves discrepancies between the two documents, staples two copies of the purchase order to the original vendor invoice and submits the voucher packet to finance for processing.

The voucher packet is received by the project accountant who assigns a vendor number to each purchase order to be used for system input. The project accountant then transfers the packets to the junior accountant who reviews them to ensure that the accurate organization and sub-object codes are being charged, that the invoice is original, the supervisor or department head initialed the documents and that the invoice number and amount is correct. If all the information is correct, the junior accountant initials the voucher packet and enters the information in the GAFRS system. If there were any problems with the information contained in the voucher packet or if there are insufficient funds available in the organization and sub-object codes being charged, then the junior accountant will complete a purchase order return form and return the documents to the departments for correction. The City has implemented automated flags which are supposed to prevent the processing of invoices if there is an insufficient cash balance in the account. However, as noted in **F5.18**, several funds closed 1996 and 1997 with deficit balances indicating that the City may be overriding the automated flags.

On Wednesday night each week, the vendor checks are printed by the MIS department. On Thursday, the project accountant manually matches the checks to the voucher packets and stuffs them in envelopes for mailing on Friday. If there are discrepancies between the information entered and the checks printed, they are supposed to be detected at this time. If any problems are detected with the vendor payments, the checks are then voided and reissued the following week.

R5.12 In conjunction with the proposed purchasing processes noted in **R5.6** and **R5.7**, the following is a description of how the vendor payment functions should be re-designed. All vendors should be instructed to send invoices directly to the project accountant within the finance department. When goods are delivered to the departments, the employee receiving the items should sign, date, and forward both the packing slip and the applicable copy of the purchase order to the project accountant authorizing her to proceed with the payment process. As the project accountant receives the vendor invoices, she should compare them to the copy of the purchase order sent to her by the junior accountant and the packing slip to ensure what is being billed reconciles with what was ordered and received. All discrepancies should be investigated and promptly resolved. Once the invoices have been properly verified, the project accountant should enter them into the accounting system.

F5.16 Financial audits for calendar years 1995, 1996 and 1997 disclosed that there were instances where copies of invoices had been used as the basis for payment to vendors. There were additional instances where purchase orders alone were used as the basis of payment to vendors. Furthermore, once vendor invoices are paid, the City does not stamp the document as being paid or canceled. Control weaknesses such as these allow for the potential that duplicate or improper payments will be made to vendors for merchandise or services that were not received.

Interviews with the finance director indicate that she has recently made it a priority of the finance department to ensure that the City only pays vendors based on original invoices. Although a sample of vouchers taken during this performance audit indicated that there were some relatively minor instances where copies were still used, there were no instances where purchase orders alone were used as the basis for payment. The finance department still does not stamp the invoices as being paid or canceled. Based on the results of this sample, the City still has some problems with paying on invoice copies but it appears that it is beginning to address this issue.

R5.13 The finance department should continue requiring the departments to submit original vendor invoices prior to making payment. For additional control purposes, the finance department should consider adopting the practice of having the project accountant stamp all invoices as paid after payment has been remitted. Adopting and strictly enforcing these practices would aid in eliminating the potential for duplicate or improper payments.

F5.17 Through adoption of the annual budget, the City council establishes the legal level of control. The City of Youngstown chooses to appropriate at the "fund, function, object" level, therefore, City council approval is required prior to making budgetary transfers between object levels within a function, between functions within a fund and between funds. This oversight cannot legally be delegated.

Appropriations are amended throughout the year and at year-end. During the year, the finance director makes adjustments within the financial system to modify appropriation levels to allow for processing of transactions. With the exception of transfers between funds, budgetary adjustments are not submitted to City council for approval. The finance director indicated that she does receive City council approval prior to making transfers between funds. By not receiving City council approval prior to making transfers between object levels within a function and functions within a fund, the City is not complying with ORC requirements.

R5.14 The City should comply with ORC requirements and only process budgetary transfers after receiving City council approval. The City should review its policies regarding the establishment of the legal level of control to ensure that it is set at a level that is both appropriate and manageable. The annual appropriation resolution which sets the operating budget should be prepared at a level which would preserve City council oversight, but which would also allow the finance director and department supervisors to transact City business in an efficient manner. If the current "fund, function, object" level is deemed to be the most appropriate and effective, no change should be made. However, if it is determined that composing the appropriation resolution using a level different from "fund, function, object" would enhance City council oversight or management efficiency, future appropriation measures should be adopted at that new level. This decision should be made cooperatively by the City council and the finance director.

F5.18 Although the City has the automated flags activated which are supposed to prevent the processing of an invoice when an insufficient line-item balance is available, several people other than the finance director have the capability to override the system. The finance director indicated that although these people have the capability, they are not supposed to perform the overrides unless they have her permission beforehand. However, since the City closed 1996 with three funds where expenditures exceeded appropriations and 1997 with 17, it appears that the current controls are ineffective and raises the possibility that personnel may be overriding the system without the finance director's consent.

R5.15 The City should fully utilize the control features built into the accounting system. When departments attempt to make purchases which exceed the appropriation within the line-item being charged, the finance department should require, in all instances, that a transfer with the correct authorizations (see **F5.17**) be submitted to cover the expenditure. If for some reason it becomes necessary to manually override the system, the finance director or the accounting

manager should be the only personnel who have the capability to perform such an action. Therefore, the City should consider changing the current override code so that the finance director and the accounting manager are the only personnel capable of performing the overrides. When overrides are necessary, they should be documented as to the reason why, how the deficit account balance is going to be rectified and who performed the override. This documentation should be submitted to the City council on a monthly basis along with the appropriation modifications. Taking these actions would not only place the City in a position of being able to better enforce the integrity of its budgets, but it would also hold management accountable for performing these overrides.

F5.19 The current practice fostered by the finance department does not require the departments to submit documentation that ordered goods have been received. In processing vendor payments, the finance department assumes that if the purchase order was signed by the department head, then the goods must have been received. However, this assumption may be false because the potential exists that a department head will sign the purchase order indicating that all the goods have been received in a satisfactory condition without conducting a thorough evaluation. By not requiring the packing or receiving slip to be submitted with the purchase order and vendor invoice, the potential exists that the City could make a payment for goods which have been received in an insufficient quantity, received in an unsatisfactory condition or possibly not received at all.

R5.16 To strengthen controls over the vendor payment functions, the finance department should require that adequate documentation be submitted as evidence that ordered goods were received in a satisfactory condition. In complying with this requirement, the departments should submit signed copies of both the packing slip and the receiving copy of the purchase order. To foster accountability, the documents should be signed by the departmental employee who received and inspected the delivered goods. Rather than basing vendor payments on broad assumptions, this would provide the finance department with evidence that the goods were delivered in a satisfactory condition and that someone inspected and signed for them at the time of delivery.

F5.20 The City does not perform any procedures to ensure the accuracy of the vendor payment information prior to printing the checks. The GAFRS accounting system currently generates check pre-list reports on a daily basis detailing all the checks that are ready to be printed. However, no one is currently reviewing them. The only control functions in place occur after the checks have been printed and consist of the project accountant manually matching all vouchers to the appropriate checks and verifying that the amounts and vendor names are accurate. If errors are identified, the check is voided and reissued a week later. This process is inadequate because it results in wasted paper, additional printing costs, an inefficient use of employee time and effort as well as delayed vendor payments.

R5.17 The finance department should implement control procedures designed to identify data entry errors prior to printing the vendor checks. At a minimum, the City should consider having the project accountant maintain manual batch totals of vendor invoices that are submitted to the general accounting manager on a daily basis for reconciliation to the pre-list reports. On a weekly basis, the reconciled pre-list reports should be submitted to the finance director who would be responsible for reviewing them for unusual amounts and signing the documents indicating that the checks can be printed.

F5.21 Based on a representative sample of transactions, the City pays its vendors within an average of 40 days from the receipt of an invoice, with the longest elapsed time being 133 days. Vendors typically extend "net 30" payment terms, which means that the balance will not be considered overdue until thirty days past the invoice date. The City's average payment cycle of 40 days indicates that it is essentially paying its vendors late. However, many of the City's invoices are being paid prior to the net 30 payment terms. During calendar year 1998, the finance department issued 10,326 vendor payments averaging approximately 200 regular checks per run.

F5.22 In order to be assured that the departments are taking advantage of vendor discounts, the finance department issued a memorandum stating that "...all departments are to pay particular attention to any discounts that can be received from the vendors. Invoices which can receive a discount should be processed as a top priority item. A written explanation will be required if discounts are consistently missed or ignored." To provide an objective basis for monitoring the vendor discount process as well as to answer department and vendor inquiries, the finance department time stamps all purchase orders when received.

Currently, available discounts are not being documented and discounts taken or lost are not being recorded and analyzed. According to the general accounting manager, the majority of the departments consistently utilize the available discounts and therefore, there has been little need to document this type of information. Departments consistently missing invoice deadlines are identified through observation by either the junior or project accountants who then notify the general accounting manager.

C5.2 By issuing a formal memorandum to the departments, the finance department has shown the importance of taking advantage of vendor discounts. Furthermore, time stamping purchase orders when received better enables the finance department to monitor vendor payment lead times as well as answer inquiries.

R5.18 Because Youngstown's average vendor payment cycle time (40 days) is in excess of the standard 30 day payment terms, it appears that the City's vendor payment monitoring system could be enhanced. Therefore, the City should implement a formal tracking system designed to monitor and process invoices in a more timely manner. As part of the tracking system, the

City should use the check pre-list reports (**R5.17**) to identify those departments which are submitting the necessary information on an untimely basis and work with them to rectify the situation. By paying invoices late, the City could potentially damage important vendor relationships as well as pay more for items because the vendor may build in a cost for doing business with the City.

Due to a lack of formal tracking of prompt payment discounts, the City is unable to objectively analyze its performance in this area. To provide a more objective as well as accurate basis for identifying departments not utilizing vendor discounts, the City, within the formal vendor tracking system noted above, should begin documenting by department, the number and dollar value of vendor discounts taken and lost.

F5.23 On Wednesday nights, vendor checks are printed by the MIS department and delivered to the project accountant on Thursday morning. According to the project accountant, it usually takes all day Thursday to match the vendor checks to the applicable voucher packets and then manually fold, stuff and seal roughly 200 vendor payments each week.

In processing vendor payments, the City of Canton utilizes a laser printer to print the checks and a self-sealing mailer machine to fold the documents and pressure seal them. A City of Canton finance department representative indicated that with the use of the self-sealing mailer machine, it takes approximately 10 minutes to fold and seal approximately 100 vendor payment checks. The finance department representative also indicated that they utilize this machine to process approximately 1,200 to 1,300 payroll checks on a biweekly basis.

R5.19 Youngstown should investigate the feasibility of utilizing a self-sealing mailer machine. This would eliminate the time spent on stuffing envelopes as well as reducing the need for copy paper and envelopes. This equipment could also be used for purchase orders, employee paychecks, Form W-2s, Form 1099s, various correspondence and other printing needs. Utilizing this time saving equipment will also allow the project accountant to devote more time towards implementing and maintaining the proposed purchasing and vendor payment cycles noted in **R5.6, R5.7** and **R5.12**.

Financial Implication: Currently, the project accountant spends approximately eight hours a week folding and stuffing envelopes. This results in approximately $7,000 a year in salaries and benefits being dedicated to these tasks. A self-sealing machine capable of processing 1,300 documents an hour can be purchased for about $5,600. Additionally, self-sealing mailers capable of processing 2,500 documents an hour can be leased at a price of approximately $157 a month. Many types of stock are available, at a cost of around $50 per thousand. Additional savings would be realized through reduction in the use of paper, envelopes, printing and postage (if bar-coded addresses were incorporated). Form layout can be custom designed and printed on blank paper with a laser printer. Security features can also be incorporated.

F5.24 The financial statement audits conducted in 1995, 1996 and 1997 addressed many of the noncompliance conditions and internal control weaknesses identified during this performance audit. This indicates that although the City was made aware of deficiencies in its procurement practices as early as 1995, minimal action has been taken to correct these issues. Noncompliance conditions and internal control weaknesses identified during the last three financial audits which appear to remain uncorrected are summarized below:

- In all three years, the City had funds where expenditures exceeded appropriations. This is a violation of ORC § 5705.41 (B).

- No subdivision or taxing unit is supposed to enter into a contract to expend money unless there is a certificate of the fiscal officer that the amount required has been lawfully appropriated and is in the treasury. However, there were and continue to be instances where purchase orders are dated subsequent to the invoice date, indicating that the finance director is not providing the necessary certification which violates ORC § 5705.41 (D).

- Copies of invoices have been used as the basis for payment to vendors. There were instances where purchase orders alone were used as the basis for payment of vouchers. Furthermore, vendor invoices are not canceled when paid. These practices foster an environment where duplicate payments can be made to vendors or payments can be made for merchandise never received.

- Payments have been made to vendors without proper evidence that products or services have been rendered. Packing slips or receipt copies of purchase orders are not available as supporting documentation for payments. This weakness may result in payments to vendors for products or services which have been received in unsatisfactory condition or not received at all.

- Several employees are able to override the computer system to enter expenditures that exceed the amount appropriated within line items. In all three years, there were funds in which total expenditures exceeded appropriations.

- The City has not established an effective fixed asset tracking and valuation system. This weakness has resulted in the omission of land from the fixed assets reported on the City's financial statements, as well as other valuation and completeness errors.

R5.20 As can be seen through this report, many areas addressed by past audits have remained uncorrected. The instances of noncompliance and internal control weaknesses identified in this and previous audits should be rectified for the current and future years. It should become a formal goal of the finance director and the City that the audit for the current year be completed with an absence of reportable conditions carried over from past audits. This report and the financial statement audits contain specific recommendations relating to the internal control weaknesses and noncompliance conditions which should be implemented.

Financial Implications Summary

The following chart presents a summary of the cost savings and implementation costs identified in this section. Only recommendations with quantifiable financial implications have been included in this chart.

Summary of Financial Implications

Recommendations	Annual Cost Savings	Implementation Cost
R5.3 Implementing JIT	$63,500-$79,500	
R5.8 Hire a buyer for centralized purchasing		$32,500
R5.9 Implementing on-line purchasing		$25,000 (One Time)
R5.19 Implementing self-sealing mailer machines	$7,000	$5,600 (One Time)
Total	**$70,500-$86,500**	**$63,100**

Conclusion Statement

Youngstown's purchasing cycle can be summarized as being a decentralized process that is not completely compliant with Ohio Revised Code, contains many internal control weaknesses and is manual and paper driven. Although the City has chosen to maintain a decentralized purchasing process, there should be formal practices and procedures that all the departments are expected to comply with. Due to the lack of formally adopted and enforced City-wide policies, significant inconsistencies exist between the practices and procedures of the departments. Therefore, the City council should adopt formal City-wide policies and the board of control and the finance department should take the necessary actions to ensure compliance with these policies.

Until the City complies with the ORC and begins utilizing encumbrance accounting, they will continue to have budgetary integrity problems. The current system is ineffective because it allows the departments to make purchases without obtaining the finance director's certification that funds are available. Also, it does not allow for the encumbering of funds prior to or even after a purchasing contract is formed. As a result of these deficiencies, it appears that the City-wide budgetary system cannot be relied upon to provide accurate fund balance information. This statement is evidenced by the fact that each department must dedicate valuable resources to maintain their own budgetary records for use in making purchasing decisions. This is an inefficient duplication of effort.
To rectify these deficiencies, the City should establish a centralized purchasing department. A centralized purchasing department would have the resources necessary to subject a greater number of purchases to competitive pricing as well as to implement and monitor the use of requisitions and encumbrance accounting. Not only would this save money but it would also sufficiently improve the accuracy of the budgetary records to allow for the elimination of much of the current duplication of effort. If the City chooses not to implement centralized purchasing, then it should modify the current process so that the City does not become obligated for purchases until after they have been properly approved, encumbered and certified. Eliminating various unnecessary tasks should result in the departmental clerks having additional time that could be better devoted to other tasks within the departments. Once the City has implemented an effective purchasing cycle that utilizes encumbrance accounting, then it should begin investigating the merits of an automated purchasing system.

Although the financial statement audits conducted in 1995, 1996 and 1997 disclosed many ORC violations and internal control weaknesses, these items have continued to remain uncorrected. City management needs to immediately take action to address these issues to prevent waste and abuse of limited City resources.

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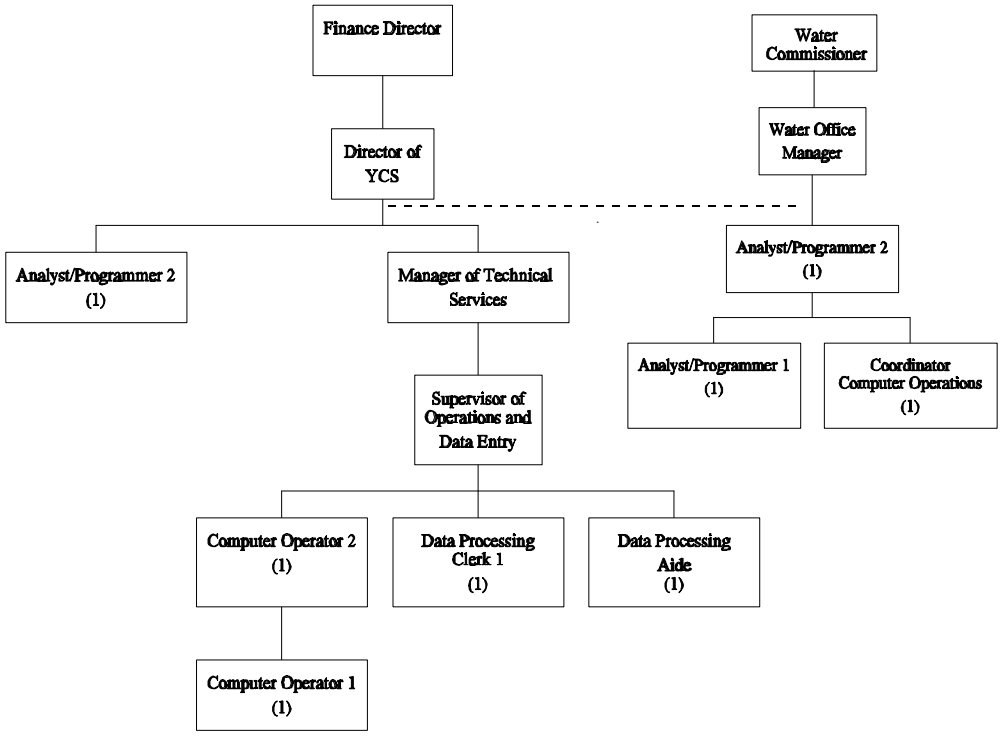
Technology Utilization

Background

Organization Chart

Technology implementation and management are handled by the Youngstown Computer Services Division (YCS). The following chart shows the key technical personnel within the City of Youngstown.

Chart 6-1: Technology Personnel



There are three programming and computer specialist positions which are funded by the water department and are part of the water department's organizational structure. However, they also report to the director of YCS. These individuals are physically located in the YCS department at City Hall. The three positions are responsible for doing technical work for the water department system only.

Organization Function

YCS is a division of the department of finance. The position of director of YCS was created in 1979 and reports to the director of finance. This position is responsible for supporting all departments under the mayor. In addition, the director works with and provides technical advice to departments governed by other elected officials, such as the municipal courts.

YCS has 11 budgeted positions, including the three budgeted positions dedicated to the water department. Further, YCS only has one programmer supporting Year 2000 efforts and in-house applications, other than water department applications. As a result, the director of YCS performs some of the programming duties.

According to department job descriptions, the manager of technical services manages the YCS activities (print and batch jobs, system backups) on the second shift. The primary focus of analyst programmers 2 and 1 is the design and implementation of data processing systems and the maintenance of in-house applications. The supervisor of computer operations and data entry manages mainframe computer operations schedules and documentation. Computer operators support data processing activities, such as mainframe and peripheral equipment monitoring and maintenance. The coordinator of computer operations works mainly with the water department's computer operations. The data processing clerk 1 and aide perform data entry operations.

Summary of Operations

The YCS department is responsible for providing technical support for the mainframe applications (programming, computer operations, report generation); acting as a technical advisor to other departments; supporting all systems of the water department; and performing data entry for certain software applications (payroll, police). YCS runs three shifts from 11:00 pm Sunday to 12:00 am Saturday. A description of shift responsibilities are listed below.

- First shift (day shift) maximizes accessibility for online users, provides reports and batch jobs as requested or scheduled and supports data entry.

- Second shift primarily processes water billing and receipts as well as system backups.

- Third shift performs General Accounting and Financial Reporting System (GAFRS) and other

routine batch jobs, backups and system administration. Planned system down time (in coordination with the police department and 911 operations) occurs during this shift to perform system updates and other routine mainframe maintenance operations.

In addition to the mainframe, YCS supports a word processing network and supplies guidelines on personal computer acquisition. The City relies on equipment vendors to perform computer hardware repair and maintenance. There is no centralized repair service. The management of repair and maintenance efforts is decentralized, requiring departments to initiate equipment service calls. Technical training is provided to the technical staff on an as-needed basis.

Technical Configuration

The City does not have a wide area network (WAN). The water department's local area network (LAN) hardware is located in and is supported by the YCS. The fire, police, engineering, permits, and inspections and sewer departments have LANs that are mostly supported by equipment vendors. The water and sewer departments also have separate connections to the mainframe.

Youngstown City Hall houses the YCS department. The City operates an IBM ES/9000 platform to process the major governmental operations applications. Various additional equipment such as scanners, routers, servers and printers also reside at City Hall. The following table outlines some of the key statistics describing the IBM ES/9000 system:

Table 6-1: IBM ES/9000 Platform Overview

Model	IBM ES/9000 Model 9221
Location	City Hall
Initial Installation	January 1996
Memory	32 MB
Tape Drive	4 Cassette, 2 Reel tapes
Disks	39.7 GB RAMAC RAID
Operating System	VM/ESA 2.2, VSE/ESA 2.3
Upgrades	September 1, 1998
Language	COBOL

Source: YCS department

The City's major software applications (accounting, payroll, income tax, water) are run on the mainframe. In addition, the City operates a Wang VS 65, purchased in 1986, that is used solely as a word processor. The sewer department also uses a DEC VAX 4000-100 to monitor plant and pump stations.

The City currently has 149 users who are able to use at least one of the applications or databases available on the IBM ES/9000 mainframe. Users are limited to the applications for which they are

authorized. For example, the fire department secretary has access to the GAFRS financial accounting and budgeting application and the property database but not other applications.

The City of Youngstown does not have an up-to-date inventory of its computer hardware. However, documents supplied by City staff indicate that there are at least 224 PCs and 161 printers in total that are available for use by City personnel. The following table shows a breakdown of computers by City department. The table does not include dumb terminal stations connected to the IBM ES/9000 or the Wang VS 65 word processing system.

Table 6-2: Computer Equipment Summary

Department	Number of Workstations	Number of Printers
Building and Grounds	3	3
City Council	4	3
City Planning	5	5
Civil Service Department	2	2
Community Development	17	3
Economic Development	4	4
Emergency - 911	5	4
Engineering	5	5
Finance Department	14	10
Fire	17	4
Health	27	25
Law Department	12	12
Management Information Systems	12	10
Mayor	6	0
Municipal Court	20	18
Parks	2	4
Police	21	12
Police - video [1]	6	3
Streets	10	0
Sewer	21	18
Water	11	16
Totals	**224**	**161**

Source: Director of YCS, City documents

[1]The police department operates a separate video system to record and file mug shots.

Applications

The following table lists the key software applications that the City uses to manage business operations. The applications are categorized by departmental area. The table also indicates the software vendor, the platform on which the application resides at the City and the implementation year.

Table 6-3: City Software Applications

Departmental Area **Software Application**	**Vendor**	**Platform Application Resides On**	**Implementation Year**
Finance			
Accounting/budgetary	FSA (GAFRS)[1]	IBM ES/9000	1996
Payroll	In-house	IBM ES/9000	1975
Income tax	In-house	IBM ES/9000	1976
Water Department			
Utility billing	Computare Inc. (CUBS) [2]	IBM ES/9000	1993
Plant monitoring	Aquatrol	PC based	1993
Sewer Department			
Plant monitoring	Bristol Babcock (SCADA) [3]	DEC VAX 4000-100	1984
Bailiff Municipal Court			
Court administration	GBS [4]	PC based	1998
Fire Department			
Department management and reporting	Firehouse	PC based	1998
Incident preplaning	Firezone	PC based	1998
Police Department			
Records management	Off-the-shelf applications supplied by various vendors	PC based	1995
Crime tracking databases	In-house	IBM ES/9000	1975

Source: Director of YCS.
Note: This table does not represent a comprehensive list of software used by the City. See **F6.11**.

[1] General Accounting and Financial Reporting System (GAFRS), Financial Systems Association (FSA)
[2] Customer Utility Billing System (CUBS)
[3] Supervisory Control and Data Acquisition (SCADA)
[4] GBS Computer and Communications Systems

In addition, YCS maintains several information specific databases which can be accessed by various City departments. The following lists the databases and describes the type of information maintained.

- City licenses - information on various City licenses such as soft drink sales and taxicab licenses
- Street file - allows input of emergency incident address to determine the fire units to dispatch
- Criminal warrants - maintains information on criminal warrants issued and tracks the management of warrants outstanding
- Tracer - public domain database containing criminal history, arrest, court docketing and traffic arrest information
- Offense - crime reporting database. Homicide reports are generated from this database for FBI reports.
- Business file - list of business notification information in case of emergency incident
- Property file - obtained from the county and contains current ownership information by parcel or lot number
- Vacant lot file - list of vacant and abandoned lots within the City
- Rental property - contains landlord registration information

Application Functional Overview

The following briefly describes the key software applications at the City of Youngstown.

Financial Applications

The Government Accounting and Financial Reporting System (GAFRS) is the general ledger accounting system used by the City. The system consists of the following integrated applications: general ledger, encumbrance accounting, accounts receivable, accounts payable and budget planning. GAFRS can accommodate any combination of appropriation, allocation, organizational unit or line item control. In addition, GAFRS provides a flexible report writer to quickly generate reports from the database. GAFRS was purchased from Financial Systems Association (FSA). See **F6.22** for additional information.

The payroll application was developed in-house in 1975. The application generates pre-printed time sheets and payroll checks, allocates wages to multiple accounts, interfaces with the accounting and budgeting system, and can generate various standard and custom reports. In addition, the application will generate edit and error reports and W-2 forms.

The income tax program was created in-house and is used to process all local income tax receipts and records for the City. The application allocates income tax collected to the intended fund. This application does not interface with any other application. Information from income tax reports must be entered manually by departmental staff into the GAFRS accounting system.

Departmental Software

Youngstown Water Department (YWD) uses two major software applications for daily operations. Customer Utility Billing System(CUBS), developed by Computare, Inc., is a utility billing system that calculates and prepares utility bills for water, sewer and trash pick-up for residents of the City. In addition, the system has separate utility revenue and receivable tracking, rate structure analysis and consumption history reporting functions. YWD also uses a water plant and pump monitoring software called Aquatrol. This software allows the chief engineer to monitor water system functions from remote locations via telephone lines.

The Youngstown Sewer Department (YSD) uses the Supervisory Control and Data Acquisition (SCADA) to monitor sewer plant operations. The application monitors dissolved oxygen and acid levels of sewage inflow to the plant and the temperature of pump station motors and indicates general operating conditions for various system parameters.

The municipal court has completed the implementation of the municipal court, clerk and adult probation software. The software and additional equipment were purchased from GBS Computer and Communications Systems. Modules include criminal/traffic, civil, parking, case management and adult probation. In addition, the municipal court also has an e-mail and word processing application module.

Youngstown Fire Department (YFD) uses Firehouse software developed by Visionary Systems for department related recordkeeping such as training, personnel incident history and maintenance and repair records. Firehouse will also track fire safety inspections performed by the department. Firezone is a computer aided drafting and design (CADD) software used to develop incident preplans for major buildings and industrial sites in the City. If an incident occurs at one of the preplanned sites, information about the incident can be entered and the program can be used as a post incident critique tool.

Youngstown Police Department (YPD) uses several different vendor purchased software packages in the administration of the department. Harvard Graphics, Corel Draw 7 and Adobe Photoshop 4 and 5 are examples of software used by the department. In addition, other office automation software is used by the YPD to produce reports, create spreadsheets and databases and develop training materials. YPD uses several in-house databases (offense, tracer, warrants) for information look-up and report writing.

Staffing

The following table presents staffing level information by primary responsibility for those key personnel involved in the implementation and management of the City's technology. The number of staff was calculated using full-time equivalents (FTEs) as applied to the individual's responsibilities.

Table 6-4: Technology Staffing

Position/Responsibility	Budgeted Positions	Actual Number of Positions	Number of FTEs
Director of YCS	1.0	1.0	1.0
Manager of technical services	1.0	1.0	1.0
Supervisor of operations and data entry	1.0	1.0	1.0
Analyst programmer 2 [1]	2.0	2.0	2.0
Analyst programmer 1 [1]	1.0	1.0	1.0
Computer operator 2	1.0	1.0	1.0
Computer operator 1	1.0	1.0	1.0
Data processing clerk 1	1.0	1.0	1.0
Data processing aide	1.0	1.0	1.0
Coordinator of computer operations [1]	1.0	1.0	1.0
Totals [1]	**11.0**	**11.0**	**11.0**

Source: Director of YCS

[1] The City has three technology positions in the water department that report to the director of YCS but are funded by the water department. The positions are one analyst programmer 2, one analyst programmer 1 and the coordinator of computer operations.

The City has currently budgeted for only 11 positions. Since 1976, staffing levels have fluctuated between 7 and 13 staff. The 13 staff peak occurred in 1979.

Operational Statistics and Ratios

The following table lists technical, financial and demographic information for Youngstown and its peer cities (Canton, Lorain and Springfield).

Table 6-5: Peer City Operational Statistics and Ratios

Comparison Categories	Youngstown	Canton	Lorain	Springfield
Technology Information				
Mainframe/Midrange Computer	**IBM ES/9000**	IBM RS/6000[2]	IBM AS/400	IBM AS/400 [1]
Mainframe users	**149**	300	337	225
PC workstations	**224**	325	206	300
Dumb terminal workstations	**Not available**	Not available	187	20
Laptops	**2**	1	8	56
Printers	**161**	70	97	262
Functional LANs	**Yes**	Yes	Yes	Yes
Functional WAN	**No**	Yes	Yes	Yes
City Web site	**No**	Yes	Yes	Yes
Employees per PC workstations	**3.7**	3.3	2.7	2.3
Financial Information [3]				
FY 1997 (Actual)	**$453,190**	$1,758,619	$466,802	$542,010
FY 1998 (Actual)	**$463,994**	$1,799,204	$263,158	$550,968
FY 1999 (Budgeted)	**$407,300**	$1,885,402	$355,665	$672,075
Other Demographics				
Area (sq. miles)	**31.5**	14.3	23.8	20.5
Population (1990 Census)	**95,732**	84,161	71,245	70,487
Number of City Employees	**828**	1,090	565	690
Number of Technology Employees	**11**	27	2	7

Source: Peer City documents and interviews
Note: IBM AS/400 computers are considered midrange computers.

[1] Springfield operates three IBM AS/400 platforms. Two are used exclusively for 911 services and other public safety systems.
[2] Canton is completing a migration from using an off-site Unisys mainframe to an in-house IBM mainframe.
[3] Financial information is for technology department expenditures only.

Financial Data

The following table shows summary financial information on General Fund expenditures pertaining to technology for FY 1997 (actual), FY 1998 (actual) and FY 1999 (budgeted). The salaries and benefit figures are for those individuals in the above staffing table and were calculated using FTEs, based on the individual's responsibilities, applied to budgeted and actual costs.

Table 6-6: Financial Summary

Account	FY 1997 (Actual)	FY 1998 (Actual)	FY 1999 (Budgeted)
General Fund			
Salary and Benefits [1]	$249,467	$267,090	$272,750
P/T, Overtime	$26,847	$15,272	$15,000
Fringe Benefits	$5,664	$4,705	$5,250
Travel, Seminars [2]	$0	$1,300	$2,500
Professional Services	$1,290	$7,880	$7,500
Utilities and Telephone	$1,199	$1,161	$1,200
Repair Services [3]	$2,132	$504	$500
Maintenance Services [4]	$74,951	$49,885	$50,000
Rental Expense	$18,679	$15,738	$16,000
Other Operating Services	$6,509	$8,851	$10,000
Office Supplies [5]	$0	$15,975	$20,000
Other Operating Materials	$3,191	$6,427	$6,500
Postage and Shipping	$32	$57	$100
Equipment [6]	$63,229	$69,149	$0
Totals	**$453,190**	**$463,994**	**$407,300**

Source: City financial records and staff

[1] Salary and benefit amounts for technology personnel funded through the water department are not included in this table.
[2] Travel budgets were cut to balance the City budget in FY 1997.
[3] Replacement of old equipment caused decreases in repair expenditures.
[4] Replacement of old equipment and system upgrades caused decreases in maintenance services.
[5] Office supplies budgets were cut to balance the City budget.
[6] The budget for equipment was not included in case cuts would have to be made.

Performance Measures

The following is a list of performance measures that were used to conduct the review of technology at the City of Youngstown:

- Adequacy and appropriateness of technical personnel in relation to municipal requirements
- Comparison of staffing levels to peer cities and to private sector staffing ratios
- Effective strategic planning and review of technology
- Effective and efficient management of technology activities
- Adequacy of technical architecture (hardware and networks)
- Effective use of software applications
- Assessment of communication technology
- Adequacy of technical training
- Assessment of Year 2000 compliance effort

Findings / Commendations / Recommendations

Organization and Staffing

F6.1 The City does not currently have a chief information officer (CIO) responsible for city-wide technological operations. The director of YCS does not have formal responsibilities over technology issues on a city-wide basis. Departments have broad authority to purchase and implement technology hardware and software. For example, the director of YCS only reviews computer purchases city-wide while the Data Processing Board (see **F6.6**) gives final authorization for technology purchases over $2,500. Many peripheral equipment items and software applications do not meet these review criteria. This limitation may allow for the purchase of equipment or software that is not compatible with existing city systems. Additional examples of decentralized technology management activities include the following:

- **!** Strategic Planning - The City does not have a city-wide comprehensive strategic technology plan. (See **F6.5** and **R6.5**)
- **!** Software Licenses - The City does not have a centralized inventory of software and software licenses. (See **F6.12** and **R6.12**)
- **!** Hardware Warranties - The City does not centralize its management of hardware warranties. Individual departments are responsible for maintaining hardware warranty information. (See **F6.14** and **R6.14**)
- **!** Computer Repairs - The City does not have a centralized process for computer repairs. (See **F6.15** and **R6.15**)

The lack of centralization of the preceding technology functions limits the operational efficiency of the City, and increases technology cost incurred. The actual excess cost to the City by not performing the above mentioned duties could not be reasonably determined.

R6.1 The City should establish a full-time chief information officer position that reports directly to the mayor. Currently, the director of YCS reports to the director of finance. Having a reporting relationship directly to the mayor allows key technology issues to receive the high-level attention necessary to ensure that major city and departmental technology purchases will help achieve the City's broader goals. In addition, a CIO position reporting to the mayor, could ensure technology standards are applied city-wide resulting in technology training, maintenance and operational efficiencies.

Table 6-5 presents operational statistics and ratios for Youngstown and its peer cities (Canton, Lorain and Springfield). A CIO position could help implement the technology needed to be more comparable to the peer cities. For example, Youngstown has considerably fewer mainframe users and PC workstations than the peer cities. A CIO position with city-wide authority, could ensure the efficient use of existing system functionality. In addition, the CIO could assist with procuring new systems that provide enhanced operational and productivity efficiencies for the City.

The main duties of a chief information officer should include but are not limited to the following:

- Develop, evaluate and update the City's technology plan
- Assist in the development and administration of the technology budget
- Assist in the City's acquisition, use and maintenance of technology hardware and software
- Manage the City's network system
- Assist in grant planning and proposal writing
- Provide technical assistance to city personnel regarding technology
- Coordinate with departments in the use of computers

The individual promoted or hired for this position should possess a degree in the computer science field and relevant work experience or sufficient work experience and knowledge to manage technology city-wide. In interviewing individuals for the chief information officer position, the City should ensure that having an appropriate technical background as well as management skills are the primary requirements. The CIO should have responsibility for all technology issues throughout the City.

The City needs to fill the CIO position as soon as feasible because this position is a key management position within the City. The advent of the Year 2000 and associated software and hardware replacements and upgrades are examples of critical technology projects that will require technical leadership to ensure systems are properly implemented. The City is also presently developing and implementing a wide area network (WAN) and a CIO could provide project coordination across the various City departments.

Financial Implication: The cost of this position is expected to range from $84,500 to $110,500 in annual salary and fringe benefits if the City hires a CIO or promotes the current director of YCS and hires a new employee to assume his responsibilities.

F6.2 The descriptions for the City's technical positions are not up-to-date. For example, the computer operator position description was last updated on March 9, 1987. Not having up-to-date job descriptions prevents the City from attracting qualified candidates for vacancies.

Candidates who read the job description may lose interest in submitting an application if they believe they will be performing activities that are outmoded. In addition, outdated job descriptions pose a problem for staff evaluations. Staff cannot be properly evaluated when the criteria they are to be evaluated against is no longer relevant.

R6.2 The City should also revise the technical position descriptions so the duties and required knowledge/skills more accurately reflect basic functions needed to support the City's technical operations. Once the position descriptions have been updated, the City will be better able to properly evaluate the technical staff and help ensure that technical staff remain qualified.

F6.3 Technical staff at the City do not receive formal annual evaluations. According to the director of YCS, informal evaluations are done. In addition, the director of YCS believes there is no need to do formal evaluations because the City does not provide step increases.

R6.3 The City should implement an annual evaluation process for all technical staff. Periodic evaluation of technical staff is necessary to ensure that individuals are keeping up with changes in technology and remain qualified to perform technical activities. The evaluations should incorporate responsibilities on the updated position descriptions and should assess the staff's performance to ensure that individuals are improving in areas such as network management and support that are necessary to help the City effectively conduct its operations.

F6.4 The following table presents staffing level information by category for Youngstown and its peer cities (Canton, Lorain and Springfield). The number of staff figures represent FTEs as applied to the individual's responsibilities.

Table 6-7: Peer City Staffing Comparison (FTE)

Staffing Category	Youngstown	Canton	Lorain[1]	Springfield[1]
Director of information technology	**1**	1	1	1
Assistant director of information technology	**1**		1	
Supervisor, data entry	**1**	1		
Assistant supervisor		1		
Data entry clerks	**2**	4		
Network administrator		1		1
Network support		3		1
Database administrator		1		
Supervisor, programmer/analyst		1		
Programmer/analyst	**3**	9		
Computer operators	**3**	3		1
Administration aides/assistants		1		1
Computer/application specialists		1		2
Totals	**11**	**27**	**2**	**7**

Source: City of Youngstown and peer city documents

[1] Springfield and Lorain do not have significant in-house written programs and do not require programmers/analysts. In addition, data entry functions are performed by City department clerical staff.

Compared to the peer cities, Youngstown has the second highest staffing level. The City of Lorain has only two technology positions and contracts with New World Systems Corporation for technical products, support and service for all major applications, systems and networks.

The Gartner Group, a leading information technology consulting firm, advises organizations to examine the makeup of their computer user population to determine appropriate staffing levels rather than devising a staffing formula. The firm suggests a classification consisting of three levels. The Gartner Group has found the following ratios of technical support person to end users to exist in organizations surveyed for the three general classifications of users:

- **!** Power user (technologically sophisticated user) 1:30
- **!** Office user (uses office software and business applications software, e-mail and Internet) 1:60 to 1:100
- **!** General (minimal user of computers) 1:125 to 1:300

Three staffing categories (network administrator, network support and computer/application support) in **Table 6-7** have direct workstation support responsibilities. However, the City has no equivalent staff to maintain and repair about 224 PCs.

R6.4 In conjunction with the development of the strategic plan, the City should perform a technology staffing analysis to determine if there is a need for positions not currently budgeted or revisions to current position duties. The analysis should include the following topics:

- Current staffing levels and job descriptions
- Staffing needs for new hardware implementation and maintenance
- Staffing needs for the implementation and maintenance of a wide area network (WAN)
- Projected retirement and employee attrition
- Projected funding available for technology

As the network and technology infrastructure of the City is developed, the City should consider applying the Gartner Group analysis or any other rational methodology to determine its appropriate staffing level for technical support. For example, if the City uses the office user ratio of 1 technical support person for every 100 workstations, the City would need the equivalent of 1.6 FTEs. The 1.6 FTE figure was calculated assuming 163 computer workstations and 0.0 FTEs for existing technical support.

If the Gartner Group analysis is used, the salary and benefit costs for a technical support person should range between $47,970 and $71,760. In determining the number of technicians necessary at the City, administration should first perform the staffing analysis and then consider the existing and future volume of hardware and software as well as the technical skill level of the users at the City. The financial impact to the City could be minimized by reassigning existing responsibilities and training staff as a result of the technology staffing analysis**.** Alternatively, the City could consider out-sourcing the technology support function to a qualified technology vendor.

Financial Implication: The addition of 1.5 to 2.0 FTE technical support positions would cost the City between $90,000 and $120,000 annually in wages and benefits, assuming these positions could be filled at a $60,000 annual cost.

Overall Planning and Management

F6.5 The City does not have an up-to-date comprehensive strategic technology plan. According to the director of YCS, the YCS department does plan for technology reviews, upgrades and purchases within the department. In addition, the director of YCS indicated the normal

budgeting process may encourage other city departments to plan for future personnel needs and equipment replacements. However, City management does not formally develop strategic plans concerning technology.

R6.5 The City should develop a comprehensive long-term strategic technology plan that incorporates departmental systems. In essence, the plan should describe the City's long-term objectives and how technical staff, funding and resources will help the City achieve these long-term objectives. The technology plan should be consistent with and support an overall city strategic plan. The comprehensive strategic technology plan should also be presented to the City council who must fully support the objectives and goals stated within the plan and ensure that adequate funding is provided. In addition, the City should also establish an annual review and revision process that will allow the strategic plan to evolve with changes in the City administration, the local community and technology.

Since a WAN is being developed and implemented, a strategic technology plan that covers all City operations is necessary to effectively manage and utilize the network. The coordination of administrative operations and departmental activities helps prevent the purchase or development of incompatible systems that must later be redesigned or replaced. The City's technology plan should address the sequential implementation of different business operations systems that use similar data to ensure that these systems will be able to properly interface with each other.

The following steps should be taken to implement the City's planning process:

- Identify and analyze the City's administrative and departmental environment that the strategic technology plan must support
- Define key goals and objectives of the City and establish measurable success factors for those administrative and departmental areas
- Evaluate how existing hardware and software applications support the long-term goals and objectives of the City
- Research significant industry trends relating to technology and governmental institutions or other public sector organizations
- Determine what technology is needed to help the City achieve its long-term goals and objectives
- Identify user requirements for software applications as well as e-mail and Internet software
- Develop an implementation plan

The result of this process should be a step-by-step action plan detailing how the City expects to meet its long-term goals and objectives given the existing technical architecture. The architecture is a blueprint that specifies the technical infrastructure (hardware, network

configuration and system software), software application systems and database design. The proposed strategic technology plan should contain the following elements:

- Realistic detailed timetable
- Funding requirements and funding sources
- Individuals responsible for implementation
- Estimated resource requirements to implement actions including consultants, contractors or in-house staffing
- Staff development
- Expected benefits
- Benchmarks to determine progress in meeting stated goals

The timetable should be realistic in estimating the City's commitment to the implementation of new technologies. The City most likely will not be able to quickly fund or support major changes in technology. A sound methodology will help the City to implement high quality applications with less risk and at a lower cost. The strategic plan as well as the budget should also address the issue of upgrades and future replacement of computer equipment as well as software and associated staff development. Upgrades and replacements are important issues that the City should incorporate into its planning and budgeting process.

F6.6 The City does not have a technology steering committee. The City does have a Data Processing Board (DPB) consisting of the mayor, finance director and law director. The director of YCS is an advisor to the DPB. The DPB meets as necessary and approves requests for hardware and software acquisitions over $2,500 after they have been reviewed by the director of YCS.

R6.6 The City should consider creating a technology steering committee and ensuring that the committee consists of individuals from various functional and departmental areas, so that representation cuts across the City. The DPB membership and scope of duties could be expanded to form the technology steering committee. The broader representation helps assure that technology activities are coordinated and consistent with the City's overall goals and objectives. Minutes of meetings should also be maintained. The City should also consider inviting community, business and technology leaders to be part of the technology steering committee to bring in additional technical knowledge and expertise. This representation helps assure that the City's technology expenditures and activities are consistent with and support the City's overall goals and objectives and provides a communication channel for citizens and business entities of the City.

The functions of the technology steering committee should include the following:

- Evaluate the justification for new initiatives to determine if the project is consistent with the City's master technology plan and priorities

- Provide recommendations to executive management and the Council
- Review progress of technology projects
- Help resolve significant organizational issues impeding project progress
- Assess implementation of new technology. For example, determine whether the technology is working as intended or determine whether adequate staff development/training was provided.
- Establish and approve technology standards

The technology steering committee should meet on a periodic basis, for example, quarterly. The City should make a concerted effort to ensure that this committee remains active and is involved in the City's strategic technology plan implementation. Committee members represent valuable resources that the City can utilize to evaluate proposals. For example, subcommittees can be formed by the steering committee to research possible technology solutions, identify specific hardware and software that would meet the needs of a department and then make purchase recommendations.

The technology steering committee needs to take a strong role in the City's technology future. Active oversight is necessary to ensure that appropriate technology is implemented in an efficient and cost-effective manner. With the implementation of the WAN, the development of administrative and departmental systems need to be consistent to ensure that City staff will be able to communicate with each other and access needed information.

F6.7 The director of YCS has extensive knowledge of the City's technology systems and operations. However, there is no formal backup person to the director who currently possesses an equivalent level of knowledge and experience. As a result, the City faces a significant risk to the operation of its technological environment if the director is absent due to job separation or an extensive leave of absence. There is only one other person familiar with some of the mission critical programs who is the analyst/programmer 2. There is also a significant risk of technology systems maintenance and software programming delays because formal backup personnel for the programmer have not been designated.

The City has not developed any in-house applications since 1976. The payroll and income tax applications were written and implemented in 1975 and 1976, respectively. According to the director of YCS, changes to these systems are minimal and are usually performed to implement new regulations. While YCS maintains the program source code for all of the in-house applications, proper application documentation has not been performed.

R6.7 The City should designate backup personnel for the director of YCS' position functions and the programmer. In addition, backup personnel for programming functions should be designated so that the risk of a disruption to operations associated with only having one or two staff familiar with the in-house applications is minimized. For example, if the in-house

support staff responsible for the maintenance of the payroll application would be absent for an extended period, another staff person could become familiar with the application by reviewing the documentation and assume the maintenance duties with minimal negative impact to City operations.

The City should also develop in-house application documentation for both users and systems staff. The documentation should be a narrative and graphical description of the applications and should include the following items:

Operating Procedures

- Instructions for turning the system on and getting the programs initiated
- Instructions for entering data at the terminal, which includes a picture of each screen layout the user will encounter
- A description of error messages that can occur and the alternative methods for handling them
- A description of the defaults taken in the programs and the instructions for changing them
- Instructions for distributing the computer's output, which include sample pages for each type of report

System Documentation

- Data dictionary - description of the files and databases
- System flow chart- description of the data as it flows from source document to report
- Application program documentation - description of the inputs, processing and outputs for each data entry, query, update and report program in the system

Technical Documentation

- File structures and access methods
- Program flow charts
- Program source code listings
- Machine procedures

The documentation should be distributed to the technical staff and made available to system users. The documentation could provide operational efficiencies and help ensure that in-house applications continue to be supported by the YCS department. In addition, the City should maintain one copy at a secured location as part of its disaster recovery plan.

F6.8 The following table summarizes the results of an assessment of selected key activities related to management of technology at the City.

Table 6-8: Assessment of Technology Management Activities

Activity	Assessment
Central purchase order review of technology-related expenditures by technology department for appropriateness	The director of YCS reviews computer purchases under $2,500 and all technology equipment purchases over $2,500. The Data Processing Board gives final authorization for technology purchases over $2,500. See **R6.8**
Purchasing policies and practices that allow for volume buys	The City uses state contract vendors for large volume buys. However, departments compare vendor prices for small volume buys and buy only when needed (see **F6.9** and **R6.9**)
Formal written technical standards covering hardware, operating systems and city-wide software	The City does not have formal written standards for hardware, operating systems or software. (**F6.10**, **R6.10**)
Written computer use policy (including Internet use policy)	The City has no written computer usage policy. (**F6.11**, **R6.11**)
Centralized up-to-date listing/inventory of software and software licenses	The City does not have a centralized inventory of software and software licenses. Individual departments are responsible for maintaining software and software license inventories. (**F6.12**, **R6.12**)
Centralized up-to-date listing/inventory of hardware equipment.	The City maintains a fixed asset inventory of its computer hardware. However, because of the $1,000 capital threshold policy, some technology equipment does not appear on the inventory and inventory items are not being tagged. (**F6.13**, **R6.13**)
Centralized management of hardware warranties	The City does not centralize its management of hardware warranties. Individual departments are responsible for maintaining hardware warranty information. (**F6.14**, **R6.14**)
Centralized process for computer repair	The City has no centralized process for computer repair. (**F6.15 R6.15**)
Help Desk services available to City staff	The City does not have help desk services available. (**F6.16**, **R6.16**)

Source: Interviews with City staff**,** City documents

R6.8 The City should employ a centralized purchase review process regarding technology issues so that individual departments are not making decisions independently. For example, all purchases for computer hardware and software should be approved by the CIO. If a purchase does not adhere to the City's standards, the CIO should discuss the purchase with the buyer

and explain that the hardware or software may not be able to be supported by the City or be compatible with the City's network.

F6.9 The City does not take advantage of volume discounts for technology expenditures other than through established state contracts. In addition, the City does not have a process to take advantage of volume discounts Since the City does not have a strategic plan, projected technology needs are not determined and departments buy only what they currently need.

R6.9 The City should establish formal procedures to ensure the City takes advantage of volume discounts of hardware and software purchases. These procedures could include the following:

- **!** Department heads and division administrators should provide their hardware and software needs to the technology steering committee prior to the start of the fiscal year.
- **!** The technology steering committee should then prioritize the needs of the department heads and the division administrators.
- **!** The technology steering committee and the chief information officer should then determine if the hardware or software requested is compatible with the overall technology goals and objectives of the City.
- **!** The chief information officer should then compile a summary of the hardware and software needed during the upcoming fiscal year.
- **!** The chief information officer should use the summary to coordinate volume purchases of the hardware and software.

Volume discounts could allow the City to implement technology in a cost-effective manner. These procedures could also ensure that the City distributes technology to the departments and divisions based on prioritized needs.

F6.10 The City does not currently have formal written standards for hardware, network operating systems or software such as office automation packages and e-mail. Although the City has implemented informal hardware standards, written standards have not been adopted. The current technology at the City consists of multiple network operating systems and a variety of office automation packages. This situation does not lead to cost efficiencies. For example, technical support staff would need to be familiar with multiple systems. In addition, a greater number of training courses need to be provided to users. Volume purchases of software packages are also less expensive than purchasing software individually. City officials indicated they are planning to implement a standard network operating system and office automation package; however, this is only in the planning stages and resources have not been allocated.

R6.10 The City should develop and enforce formal written standards for hardware, network operating systems and software such as office automation packages and e-mail. The standards should be reviewed and approved by the technology steering committee. The City should review and update the standards on a quarterly basis because of the rapidly changing nature of technology. These standards should be followed by all departments and divisions within the City, with the exception of necessary differences caused by a particular department or division's unique needs. The technology steering committee should review and approve requests for exceptions to the standards.

Because of the rapidly changing nature of technology, hardware models and software versions frequently change. Therefore, the standards should describe a range of versions that the City plans to use to conduct its operations. By standardizing hardware, network operating systems and software such as office automation packages and e-mail, the City can more effectively control the costs of implementing and maintaining technology. Although City staff should have input into hardware and software used in the departments and divisions, having multiple operating systems and hardware platforms increases the level of support that YCS would need to provide to maintain the systems.

F6.11 The City does not have a computer use policy for City employees. A comprehensive computer use policy is used to help protect against the risk that staff may use computer equipment for improper and inappropriate personal use. Examples of improper use would be the use of City equipment for personal business or to access data for personal use without express authority.

R6.11 The City should develop a comprehensive computer use policy adopted by the technology steering committee and filed with the City council that addresses the use of City equipment by City employees. Some topics to be addressed could include the following:

- Personal use of City equipment
- System security and management of passwords
- Physical security of City equipment
- Copyright laws
- Sabotage or vandalism
- Employment termination and cancellation of network privileges
- Software license violations
- Internet usage

A comprehensive policy will make City staff aware of the potential dangers computer equipment and software are exposed to in a network environment and minimize abuse of network privileges.

F6.12 The City does not maintain a comprehensive centralized listing of software and licenses. According to City personnel, each department keeps track of software and licenses used within that department. Therefore, a complete detailed inventory of software and software licenses is not currently available to City management for control and decision-making purposes. In addition, because of the lack of a comprehensive listing, the information presented in **Table 6-2** was difficult to compile and may still not be complete.

R6.12 The City should develop a comprehensive listing of software used throughout the City by establishing a database to record and track software and software licenses. The following information could be tracked for each application used by the City:

- **!** Name of application
- **!** Purpose of application
- **!** Location and type of hardware the application resides on
- **!** Software version, vendor name, address and telephone number if purchased
- **!** Location of backup source code or escrow account
- **!** Programming language used to develop in-house application
- **!** Application interfaces
- **!** Software license number
- **!** Implementation year

This listing should be an integral part of the City's disaster recovery plan (see **F6.29** and **R6.27**). These efforts to record and track software and software licenses will help ensure that appropriate individuals are using authorized software. This tracking is necessary because use of unauthorized software is illegal.

In addition, the City could use this listing to review the number and type of software currently available prior to determining additional software needs. Evaluating the existing inventory of software prevents the City from overbuying software licenses and duplicating purchases. The City could determine whether network licenses would be less expensive than purchasing software individually. Also, individual departments or divisions may have purchased software and network licensed software that could benefit other departments.

The City should also perform an annual physical inventory of the software and software licenses to ensure that the software is still on the assigned hardware and that unauthorized software is not being used. This physical inventory should be performed by YCS staff because these individuals possess the technical knowledge to perform such an inventory.

F6.13 The City maintains a fixed asset inventory of its computer hardware. However, because of the $1,000 capital threshold policy, some technology equipment does not appear on the fixed asset inventory list. According to the financial supervisor, items less than $1,000 and not

categorized as a maintenance or repair items, are included on a controlled asset inventory. For example, many laser printers, scanners and other peripheral technology equipment fall below the threshold limit. In addition, the fixed asset inventory is not detailed enough to track warranty information on computer equipment and hardware nor does it track user information. In 1997, the City began using a spreadsheet to track fixed assets and stopped tagging new assets and performing physical inventory counts. According to the financial supervisor, the City is currently in the process of implementing a new version of the fixed asset system (see the **procurement** section of this report). Valuation Resource Management, a fixed asset management firm, has been selected to perform a re-inventory of the City's fixed assets and set up the databases and fixed asset management system. When the system is fully implemented, assets acquired during 1997, 1998 and 1999 will be tagged.

R6.13 The City should continue to implement the most current version of the fixed asset system. Not having an up-to-date automated fixed asset inventory of computer hardware exposes the City to risks. For example, computer equipment could be misappropriated. Because equipment tagging and periodic inventories are not being done, the City may not be aware that such misappropriations might have occurred. Not having accurate data on the number, type and location of computer equipment could make it difficult for the City to plan and budget for hardware replacements and upgrades as well as software license purchases.

The City should also consider including all technology purchases of hardware on the fixed asset system, regardless of cost. As technology hardware competition and production efficiencies increase, hardware prices tend to decrease. Many computer hardware items fall below the $1,000 capitalization limit. By including all technology hardware purchases on the fixed asset system and tagging each item placed on the system, the City could minimize the risk of the misappropriation of assets.

In addition, the YCS department should consider developing a technology equipment database which would be able to use existing information from the City's fixed asset system as well as new categories such as IP address, computer user, and network connectivity information. This listing could contain some fields that would not normally be maintained in a fixed asset database but could help system support personnel track and monitor equipment. If the City would decide not to include the controlled asset items into the fixed asset system, technology equipment which costs less than the $1,000 capital threshold could be included in this database. A periodic reconciliation with the City's fixed asset system should be performed to maintain accurate information.

To ensure accuracy and completeness of the technology equipment data and deter misappropriation of assets, the City should conduct an annual physical inventory and perform selective testing on a quarterly basis. If the City's equipment was damaged or lost in a fire, the City would not have any replacement information for insurance purposes. In addition,

data in the technology equipment database needs to be accurate to enable the City to effectively manage its resources and generate management reports to determine the following:

- The composition of equipment at each department or division
- The age of computer equipment (including servers) in each department or division
- Ratio of computer workstations to printers in different departments or divisions
- Ratio of computer workstations to employees

This type of information can assist the City in planning for upgrades and future replacement of computer equipment as well as software licenses. In addition, help desk staff (see **F6.16** and **R6.16**) can use the technology equipment database when providing assistance to a specific computer workstation.

F6.14 The City does not centralize management of equipment warranties within the YCS department. According to City personnel, each department keeps track of equipment warranties. A comprehensive list is not available to City management for control and maintenance purposes.

R6.14 The City should track warranty information for computer hardware in a centralized database. Warranty information could be included in the technology equipment database recommended in **R6.13**. An overall reduction in computer repair costs may be realized by having accurate information on computer equipment warranties available. In addition, enforcing technical standards would also help reduce the cost of computer hardware repair. A centralized computer repair and maintenance process (**F6.15** and **R6.15**) and City help desk (**F6.16** and **R6.16)** could benefit from this centralized database.

F6.15 The City does not have a centralized computer repair and maintenance process. If a piece of computer equipment needs repair, the user department would generally contact the vendor directly if the item is still under warranty. For equipment no longer under warranty, the department calls YCS. YCS will then either call a vendor or have the department call a vendor. Normally, the vendor called is the one who originally provided the equipment.

R6.15 The City should centralize the repair process, in conjunction with the creation of the help desk discussed in **R6.16**. If a piece of computer equipment needs repair, users would first contact the central help desk, which would then dispatch designated service personnel. The following list highlights some of the benefits of establishing a central repair function:

- Improved security over computer equipment under repair
- Improved coordination of vendor services or cost efficiencies from bidding out the repair process to a single vendor.
- Increased ability to monitor vendor performance

F6.16 There is no true centralized help desk function at the City. Assistance is provided from a variety of sources such as YCS staff and other departmental personnel. Software specifically designed for the help desk function is not used by the City.

R6.16 The City should consider developing a help desk function and assigning this responsibility to designated YCS personnel. The help desk function could allow the City to do the following:

- Track the type of problems that staff members call about. The City can then analyze the problems to determine if there are specific problems that should be addressed.
- Focus training to address wide-spread problems
- Determine the reliability of computer hardware and software
- Reduce the number of calls that the technicians have to be sent on
- Dispatch computer repair technicians to the users in a timely manner

In addition, the City should consider the purchase of help desk software. Help desk software will provide features currently not available at the City. For example, help desk software would allow the help desk to customize a knowledge tree of common equipment malfunctions with corresponding solutions. The help desk personnel could then compare the symptomatic data provided by the users against the pre-designed problem assignment checklist. If a problem compares favorably against a predetermined solution, the process ends with the dispatcher providing the solution. If the problem did not match the predetermined solution, the help desk personnel would then forward the request to a technical support person or vendor.

Financial Implication: The purchase of help desk software is expected to cost the City approximately $1,000. The City of Springfield uses Track-It from Blue Ocean Software to track repair and maintenance calls on the City's technology equipment. The cost for Track-It software with a five user license is $995. Additional user licenses and software modules are available. In determining the specific help desk software to purchase, the City should first develop its help desk software requirements and then acquire the software through a bidding process.

F6.17 The City of Youngstown has failed to recognize the importance of supporting its technology infrastructure to ensure efficient and effective city operations in providing vital services to its citizens. The technology infrastructure is a major part of the foundation for the successful operation of every department in the City. The consequences of failing to make technology a high priority and to adequately plan for the replacement, implementation and support of technology are apparent. The City does not have an up-to-date comprehensive strategic technology plan (**F6.5, R6.5)** or a technology steering committee to guide the planning process **(F6.6, R6.6)**. This deficiency allows for the absence of written standards for hardware, operating systems, software, and the lack of a centralized computer repair process or technical support function (**Table 6-8)**.

The lack of a coordinated city-wide technology function and a chief information officer **(F6.1, R6.1)** has contributed to the failure to recognize the importance of up-to-date job descriptions and formal annual staff evaluations. Without leadership and technology planning, the City does not have a clear idea of what technology is needed **(F6.19, R6.18)** or the staffing required to support an efficient technology infrastructure **(F6.4, R6.4)**. The reduction in the technology budget of 12.2 percent for FY 1999 is another example of the failure to recognize technology's importance to the City.

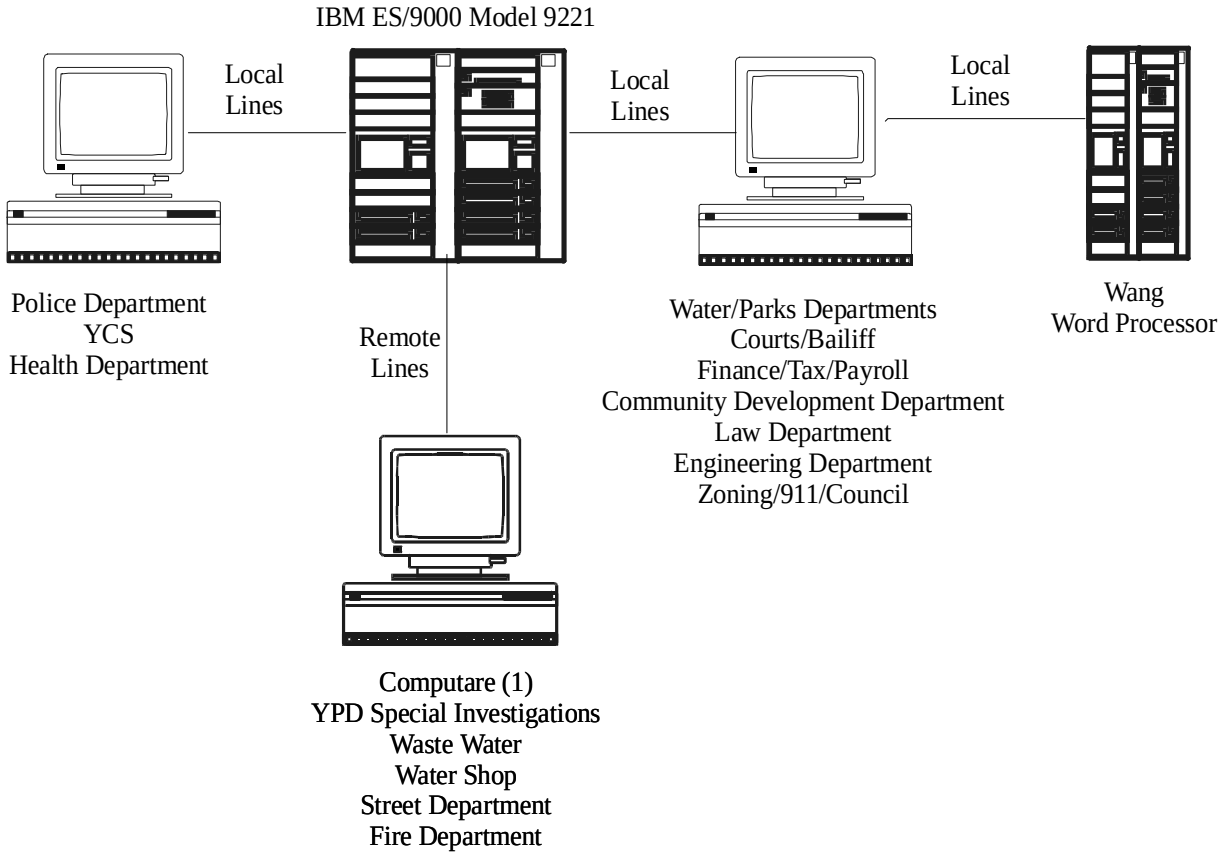
R6.17 The City of Youngstown must make technology a high priority function and reorganize its importance to the overall improvement of the City's fiscal and physical well being. The cost associated with this re-prioritization may be significantly more than the financial implications contained within this report and more difficult to identify. The first step should be to develop a budget to adequately support the technology infrastructure and staffing changes which will be required. As recommendations from this report are implemented, additional funding requirements can be identified.

Technical Architecture

Networks

F6.18 The following diagram shows the current connectivity to the IBM ES/9000 mainframe:

Chart 6-2: Mainframe Connectivity



Source: Youngstown computer services
(1) Computare is the vendor for the CUBS utility billing system.

F6.19 The City has several local area networks (LANs) that operate independently and are not connected to a WAN. For example, the LAN in the fire department is not connected to a WAN and cannot connect to the police department or engineering LANs. The exchange of information concerning arson investigations and incident preplanning contributes to the safety and security of the City. Currently, this exchange of information is performed by hard copy documents. The City has not performed a network analysis to determine the most appropriate WAN structure to implement. According to City personnel, the planned WAN will be

patterned after the Municipal Court system and use either leased phone lines or cable modems. No formal written plans for the WAN have been developed. In addition, an electrical capacity analysis of the City's buildings has not been performed.

R6.18 The City should perform an analysis of the current technology infrastructure to determine how a WAN could connect LANs and support existing and future applications like e-mail and Internet access. This analysis could then result in an action plan for any necessary upgrades to current LAN networks and the development of a WAN. The analysis should also be used when developing the City's strategic plan (see **F6.5** and **R6.5**). The analysis should take into consideration the number of users expected in the near future if the City provides additional e-mail and Internet access. The WAN structure being considered may not be capable of handling the additional e-mail and Internet access to City staff. In addition, the City should perform an analysis of the electrical capacity of each of the City's buildings to ensure new technology can be implemented and properly used.

The implementation of a WAN will increase connectivity throughout the City, ensuring that city-wide communication and data transfer can be made available to all City staff. If effectively implemented and used, a WAN can provide the City with the following benefits and improvements in operations:

- Because computer workstations throughout the City would be connected, users in one building could communicate with users in other buildings electronically. Arson investigators in the fire department, for example, could share information with detectives in the police department. In addition, users could access their required software from any connected workstation within City buildings.
- City-wide e-mail could be available to all designated staff.
- The ability of the WAN to support processes and features such as an Intranet, on-line requisitions, on-line receiving and on-line reporting could help the City improve operations and productivity.

With a WAN, City staff could access and print needed information from their desks. This eliminates having to wait for hard copy documents via internal mail or fax and improves productivity. Having timely access to information needed to perform duties allows the City to provide better service to its citizens and customers.

F6.20 The City does not currently have a designated individual to effectively monitor the new WAN being planned and implemented. In addition, the City does not currently have monitoring software or a formal procedure for network monitoring. The lack of a procedure to centrally monitor the network could cause network repair and maintenance delays resulting in lengthy network down-time.

R6.19 The City should designate an individual within the YCS department to monitor the new WAN and local area networks on a daily basis. It could eventually become necessary for the City to create a network administrator position to manage the City's networks. Additionally, the City should investigate acquiring network monitoring hardware and software which would allow the individual to remotely manage the networks from a central location.

Network monitoring software is used for remote monitoring, network diagnostics and troubleshooting. If one of the hardware components of the network is malfunctioning, the designated network administrator could use the software to determine exactly which component needs to be fixed. The network administrator can then use the software to disable (turn off) that particular component remotely so that data is not running through a bad piece of hardware. This software allows the network administrator to efficiently manage the network and quickly find problem spots.

Network monitoring software should be run 24 hours a day on a computer in the network administrator's office. The network administrator would then check the software every morning. This would then allow for problems to be detected before users show up for their regular work day.

Financial Implication: The cost to implement a network monitoring system will depend on the number of modules the City decides to purchase. A school district that purchased just the HP Open View NNM software paid about $19,000 for the software, manuals and first year updates. Before the City purchases network management software, the City should consider its network requirements and the appropriateness of the software for its platform.

Hardware

F6.21 The City is currently maintaining an IBM ES/9000 mainframe. The IBM mainframe is used to process the City's business operations applications. The City also has a Wang system still used by some departments for word processing. According to City personnel, the Wang system will eventually be phased out as new PC's and LANs are brought online. There is no estimated residual value for the Wang system. In addition, the sewer department operates a DEC VAX 4000-100 to monitor plant and pump operations. A new system is being evaluated and will replace the DEC VAX system. Again, no residual value is estimated for this piece of equipment.

Software Applications

F6.22 The City does not currently have a standardized office automation software package. City officials have stated that they intend to standardize office automation software to the Microsoft Office suite. Currently, many users have been observed using a variety of different

software packages. For example, the municipal court uses WordPerfect word processing software and the financial accounting office uses Lotus spreadsheet.

R6.20 The City should continue its efforts to establish a standard office automation software application. Standardizing hardware and certain software (word processing, spreadsheet, database) can help reduce the cost of implementing technology. For example, training costs could be minimized by having one standard office automation software application. In addition, technical staff would gain operational efficiencies by supporting fewer applications.

F6.23 The following technology utilization summaries have been compiled from other sections of this report. It appears that the City could benefit from the increased use of technology in its day-to-day operations. Additional information can be found in the respective report sections.

Finance Department

The City does not fully utilize the functionality available with the GAFRS software application. For example, the budgetary module is only used to produce budget reports. The director of finance said, that because of several data transfer errors, data had to be manually entered.

The income tax department does not use technology efficiently. The current in-house income tax application is not Year 2000 compliant and does not interface with the GAFRS accounting application. The **income tax** section of this report contains a more complete analysis of the departmental operations and includes findings and recommendations about technology utilization.

Currently, the City does not efficiently use technology to track fixed assets. The City stopped using a fixed asset system (FACTS) in 1997 and has tracked fixed assets using a Lotus spreadsheet. According to City personnel, a new fixed asset system (FACTS Plus) is being implemented. Fixed assets are discussed in the **procurement** section of this report.

The in-house payroll application was initially written in 1975. However, the application lacks some of the functionality available in current payroll applications, such as the ability to track all employee leave and to prepare deduction checks. See the **payroll** section of this report.

Engineering, Permits, and Inspections Department

The engineers division is not fully utilizing available software. The building department has purchased a Franklin software system (BDS/FIS) for record keeping such as permits, fees and inspections. However, the City is not using some of the modules purchased. Additional information is in the **engineering, permits, and inspections** section of this report.

Water Department

The water department is efficiently using technology to manage operations and monitor plant systems. The CUBS system calculates and prepares utility bills for water, sewer and trash pick-up and the Aquatrol system allows the remote monitoring of plant operations. Additional information can be found in the **water department** section of this report.

Sewer Department

The sewer department does not fully utilize the supervisory control and data acquisition (SCADA) system. The system has the ability to centrally control pump stations at the water plant. However, this functionality is not used. In addition, the system is not Year 2000 compliant. Additional information can be found in the **sewer department** section of this report.

Street Department

The street department does not use technology to help plan snow removal routes. Snow removal routes have not been updated since 1989. Additional information can be found in the **street department** section of this report.

F6.24 The City of Youngstown does not use a computer-aided dispatch (CAD) application to manage 911 calls. The police department uses a manual card system to track all emergency calls. When a 911 call is answered, incident information is written on a card and forwarded to a dispatcher to contact the proper response units. The fire department does use an in-house application that requires an address to be entered to help determine what fire units to dispatch to the address.

The City of Canton uses a CAD system from GEAC Computers. The system can display all active calls and units. Once the system verifies the address, an overview of the call (detailed location, noted cautions and user notes) can be viewed on the screen. Calls can be prioritized based on severity. Dispatchers can begin entering information as soon as they answer the call. All calls are logged and recorded. The application is server based and can be interfaced with other dispatching software. The City of Springfield uses a CAD application from New World Systems that performs essentially the same functions as the GEAC application. However, this system resides on an IBM AS/400 midrange computer. The City of Lorain receives 911 calls from a county wide dispatch center. Currently, information from the county wide 911 system must be manually entered into the City's CAD system. However, according to City personnel, Lorain is implementing an interface application which will allow county wide 911 information to be electronically transferred to the City's CAD system.

R6.21 The City of Youngstown should review the 911 dispatch process and investigate the purchase and implementation of a computer-aided dispatch system for its public safety departments. The implementation of a CAD system should provide more timely information to public safety personnel during critical incidents. In addition, the increased amount of data that can be entered or recorded, will provide additional support for incident planning, criminal investigations and final incident resolution. An automated dispatching system could also provide labor efficiencies by reducing manual operations. The cost of an automated 911 system would depend on the City's dispatching requirements determined during the review of the current process and the type of software and hardware needed to implement the system.

Communication Technology

F6.25 Currently, the City does not have city-wide e-mail. Some City departments have e-mail capability on their departmental LAN. In addition, some City employees have personal Web-based e-mail accounts.

R6.22 With the planned implementation of a WAN, the City should consider offering e-mail to all appropriate personnel. The use of a city-wide e-mail application facilitates timely communication and data sharing. In addition, a single city-wide e-mail system could provide efficiencies in technical support and training. For example, City staff would not have to be trained on several different e-mail applications.

Financial Implication: The cost of a city-wide e-mail system would depend on an analysis of the City's e-mail needs and the WAN infrastructure implemented. One example of an e-mail application is FirstClass Intranet Server (FCIS) by SoftArc Inc. The approximate cost for software and licenses for 250 users would be $2,755. This does not include the cost of a dedicated e-mail server or other peripheral equipment. Additional user licenses can also be purchased.

F6.26 The City has no Internet Web site. The three peer cities (Springfield, Canton and Lorain) presented in **Table 6-5** have City Internet Web sites. Peer city sites include the following information:

- City information such as population and demographics and history
- Individual department pages, such as parks and recreation
- Employment opportunities
- Economic development, trade and site selection information
- Maps and travel directories
- News and current events

R6.23 The City should consider developing a Web site to improve the quality and quantity of information provided to citizens, tourists and other interested parties. A City Web site could offer the following benefits:

- **!** Improved communication with the citizens of the community
- **!** Increased access to City information by the development of a one-stop information center for City services, public safety issues and other pertinent governmental information
- **!** Improved economic development and community development outreach and marketing
- **!** Increased tourism activity through City guides linked to the City's Web site

The City should consider including items such as those found in the peer city sites in addition to items of local importance. Additional items could include the following:

- **!** City government phone directory
- **!** On line forms for City services such as building permits, vendor licenses or service complaints
- **!** City financial information
- **!** City housing and development projects

If YCS does not have internal staff with Web site experience, the City should consider a Web site consulting firm to design and implement the site.

F6.27 The City currently has very limited Internet access for departmental and division staff. There are only three Internet access accounts paid for by the City. The accounts are used by the mayor, finance director and law director. The accounts allow for multiple users per account but only one user at a time. According to City staff, some employees maintain personal Internet accounts.

R6.24 The City should consider increasing Internet access for selected staff throughout the City. To do this, the City needs to perform the analysis of the technology structure discussed in **R6.17** The analysis should include evaluating connecting certain staff computers to a WAN to provide for faster Internet connectivity. Additionally, the City should develop and implement an Internet use form, as part of the computer use policy, for City employees to help reduce its liability in the event of unauthorized use of the City's computer resources (see **F6.11** and **R6.11**). Increased Internet access for the staff could provide operational efficiencies to the City. For example, increased access for the community development staff would allow for timely demographic and economic research which may be required for grant applications and reporting. In addition, many grantors (federal, state, local and private foundations) have Web sites with information on application processes, types of projects

funded and contact names to assist the City in identifying possible sources of funding for City projects.

F6.28 The City currently does not have an Intranet. An Intranet is for internal use within the City and would allow City staff to access and download/print internal information. Access to an Intranet is generally not provided to individuals external to the City such as citizens and community businesses.

R6.25 The City should consider developing an Intranet upon the completion of its WAN. The Intranet could contain the following items which would be available to City staff on-line:

- **!** Training schedules
- **!** Strategic plans
- **!** City policies and procedures
- **!** Reference manuals such as handbooks and policy manuals
- **!** Technical memos on common software questions or problems
- **!** Standard City forms such as payroll, evaluations, address change requests, training requests and fax cover sheets
- **!** Employee newsletters
- **!** Bulletin board where City staff in one department can share information on specific topics or projects with staff in another department

Having information such as telephone and e-mail directories and internal newsletters available in electronic format saves on paper materials and other supplies as well as the transportation costs involved in delivering these hard copy documents to all the City departments. In addition, the information is available in a more timely manner because all staff have access to the information as soon as it is posted on the Intranet. City staff would also be able to work more efficiently because of the ability to research and obtain information on procedures as needed versus having to wait for an answer or documentation.

Technical Training

F6.29 The City is not currently providing a comprehensive technical training program for its departmental or division staff. Currently, technical training is provided to technical staff on an as-needed basis. Training to departmental staff is provided by their respective departments when new equipment or software systems are implemented. According to the director of YCS, departments usually include the cost of initial training provided by the vendor with the new software or equipment purchased. If vendor training is not available, the YCS will review the software or equipment and make a recommendation for training courses and consultants to the department. There is no comprehensive record of completed staff training.

R6.26 The City should assign resources to develop a central staff development program for technology. Training is critical to the effective use of technology within the City. In developing a central staff development program, the City should consider the following:

- A central database should be used to track and monitor training information. For example, information on when training was provided and who attended specific courses could be maintained in this database. The City can then use this information to target staff who are not attending staff development. The City can also ensure that each staff member is receiving an adequate amount of technical training on an annual basis. In addition, the City could obtain feedback from the participants on the positives and negatives of courses taken and maintained in the database. This information would assist the City in evaluating the effectiveness of training courses. Feedback can help structure course materials and agendas for future training sessions so that they are useful to staff and cost-effective to the City.

- To increase participation in the training sessions offered, the City should consider listing courses on an Intranet (see **R6.24**). Listing information on the training sessions in an electronic form would help reduce paperwork by eliminating hard copy schedules and would facilitate keeping information more up-to-date. By making training information accessible to City staff, the staff can better plan schedules to allow them to attend needed technical courses. Until a suitable electronic format is developed, a printed course listing should be distributed to all City employees.

- In addition, to help ensure that staff are properly trained to use the technology being implemented, the City should consider making a certain amount of basic technical training (for example, sixteen hours) mandatory for those departmental staff who will be receiving a computer workstation for the first time or who will be expected to use a computer workstation in daily activities. However, if attending technical training sessions at specified training sites does not fit into existing schedules, the City could have a trainer provide one-on-one instruction to a staff member.

R6.27 The City should ensure that funds are set aside in the FY 2000 and future budgets for designated YCS personnel to attend technical training courses. Without this training, the City may have difficulty supporting the networks that are in place and that are going to be implemented in the future (see **F6.18** and **R6.17**). As the City's network infrastructure expands and becomes more complex, the need to develop staff with a thorough knowledge of networks also increases. Network support is a critical area for the City because the WAN will be used to process and transmit critical data throughout the City.

In addition, if the City hires technology support personnel (see **R6.4**), A+ certification training should be provided. A+ training and certification was recently developed so that computer

repair technicians and help desk personnel could have a formal certification process. Some of the topics that are covered in A+ certification training are:

- PC troubleshooting
- Printer management
- DOS memory management and optimization
- Corrective maintenance and repair
- Preventive maintenance
- Network infrastructures
- Internet basics

Financial Implication: Based on documentation from various local computer training centers, the cost to train a network administrator ranges from $8,000 to $11,000 per person. If the City decides to hire technology support personnel, the cost for A+ training is about $1,875 per individual.

Year 2000

F6.30 After midnight, December 31, 1999, computer systems are at risk of failing as they may confuse the year 2000 with the year 1900 on January 1, 2000. Computer systems that perform functions that rely heavily on the date field are the most at risk. The problem stems from a two-digit year field. For dates that are normally entered in short form such as "mm/dd/yy," it is nearly impossible for a computer system to distinguish between 1900 and 2000 because both years end in "00." Should systems proceed into the year 2000 without conversion, potential miscalculations could occur that affect schedules, payroll systems, benefit packages, payments to vendors, utility billings ad tax collections.

In order for a system to operate properly with the year 2000 date, the hardware, operating system and software application must all be Year 2000 compliant. In addition, entities that the City conducts business with electronically need to be Year 2000 compliant. Other systems such as security systems and energy management systems and ancillary items such as faxes, scanners and telephones also need to be evaluated. The following table summarizes the City's efforts in these areas.

Table 6-11: Year 2000 Compliance Assessment

	Administrative
Hardware	Mainframe hardware was upgraded on 1/1/99 and is Year 2000 compliant. Servers are compliant. However, a complete evaluation is being performed on all PC workstations in the City.
Operating Systems	Mainframe operating system is Year 2000 compliant. Wang and DEC VAX operating systems are not compliant. Server operating systems are compliant. A complete evaluation has been performed on all PC workstations in the City.
Software Applications	Year 2000 evaluation and work on major mission critical software is completed. Corrective actions are in process.
Other Business Partners	Compliance assurance letters from major business partners have been received.
Other Systems and Equipment	A complete evaluation has not been performed.

Source: City documentation and interviews with City personnel

The City assigned a law department staff member to manage the Year 2000 compliance efforts and has performed a documented city-wide Year 2000 assessment with cost estimates of approximately $723,000 to bring mission critical systems into compliance, but the total cost to the City in the event that remediation efforts fail is not known. The Year 2000 assessment document includes the following; however, the plan does not contain a disaster recovery component:

- Cost of upgrading existing software applications
- Cost of purchasing new software applications for those cases where the vendor is not modifying existing software applications
- Cost of resources, such as consultants, necessary to implement the software upgrades or new applications
- Funding sources
- Timetable for implementation

Some software suppliers have assured City officials that their software is Year 2000 compliant, but the software has not been tested at the City. In addition, YCS does not have a comprehensive list of software used throughout the City to review for Year 2000 compliance. Time is running out for the City and there are several systems that are currently not Year 2000 compliant. Systems and equipment not yet compliant and those recently tested for compliance are as follows:

- In-house systems (payroll, income tax) October 15, 1999
- In-house databases (tracer, warrants) October 15, 1999

!	City PCs	October 15, 1999
!	Wang VS 65 computer	Slated for disposal
!	DEC VAX 4000-100	Slated for disposal

It should be noted that while the income tax system was tested for compliance on October 15, 1999, the city is not currently using the Year 2000 compliant version of the system.

C6.1 The City has recognized the importance of addressing Year 2000 issues, making it a priority and designating a Year 2000 project manager to coordinate efforts to ensure compliance. Costs for compliance efforts have been identified or estimated, funding sources identified and timetables developed for the compliance project. The project manager is monitoring the continuing compliance efforts of the City and is periodically providing updates to City management.

R6.28 The City needs to continue to make the Year 2000 a high priority critical project because there are only several months left before January 1, 2000. Adequate funding should be estimated and set aside to address this problem. Because of the breadth of the Year 2000 problem and complexities of overall solutions, the law department staff member assigned to oversee the Year 2000 compliance efforts should have executive sponsorship, carry the authority of the highest ranking City officials and have equal access to all departments and divisions.

The City should develop a Year 2000 disaster recovery component. This component should detail the steps the City will take in the event that appropriate measures cannot be effectively implemented or efforts made to address Year 2000 compliance fail. The Year 2000 assessment document should also include the following:

- Cost of resources to provide staff development (training)
- Procedures for disposal/elimination of non-Year 2000 compliant hardware and software that will not be upgraded or replaced
- Detail testing schedule to test in-house modifications and new software on-site at the City

Communication with City staff is an important part of the Year 2000 compliance effort. Every department of the City should be familiar with the nature and importance of the Year 2000 problem, including its potential for business disaster. The City should perform the following activities:

- Communicate to City staff the nature of the Year 2000 problem, changes in job responsibilities, management of public information requests regarding Year 2000 and how the City is handling the problem

- Communicate to managers and department heads how Year 2000 noncompliance is being addressed and the importance of the project
- Provide appropriate management with status reports on the progress of the Year 2000 effort

The City needs to ensure that adequate in-house as well as vendor resources will be available to implement any new systems and make necessary modifications to existing software. If the City needs to secure the services of additional vendors, the cost of these services may be expensive because of limited resources in the computer industry. At worst, the City may not be able to find a vendor that is available.

To ensure that purchased software applications will properly function on January 1, 2000 and will not cause the City to incur unnecessary costs, the outside vendors should assist the City in testing the applications on-site at the City prior to the Year 2000. The City should investigate with its legal counsel what recourse is available in the event that Year 2000 vendor programming errors cause the City to incur costs, for example, because purchasing transactions could not be processed.

Properly addressing the Year 2000 problem is important because the City's Year 2000 efforts are being required to be publicly disclosed. For example, the Governmental Accounting Standards Board's (GASB) technical bulletin (TB) 98-1 requires that governments describe their Year 2000 issues and any significant resources committed to make mission critical computer systems and other equipment Year 2000 compliant in the notes to the financial statements. The GASB technical bulletin also requires that the stage of work on the Year 2000 projects be disclosed.

The Securities and Exchange Commission (SEC) has also released requirements for Year 2000 disclosures. Governments that issue debt that is traded on public exchanges (known as "municipal" securities even if issued by entities that are not municipalities) are subject to the SEC's anti-fraud provisions. Municipal securities issuers, like other organizations, have Year 2000 issues that may affect their operations, creditworthiness, and ability to make timely payment on their indebtedness. The SEC encourages municipal securities issuers and persons who assist in preparing their disclosure documents to consider whether Year 2000 issues may be material to investors. If Year 2000 issues are material and not adequately disclosed, this could constitute a violation of the SEC's anti-fraud provisions.

Financial Implication: The total cost to the City to make all necessary systems Year 2000 compliant is not currently known. If the City does not take appropriate measures to ensure that all key systems used at the City are Year 2000 compliant and can properly function, City business operations and activities would be significantly disrupted. Such an interruption of City operations and activities could result in a substantial additional cost to the City as well as to the community. For example, the City may not be able to record income tax collections.

Financial Implications Summary

The following chart represents a summary of the implementation costs discussed in this section. For the purposes of this chart, only recommendations with quantifiable financial impacts are listed.

Summary of Financial Implications for Technology Utilization

		Implementation Costs	
	Recommendation	**One-Time**	**Annual**
R6.1	Create position of a full-time chief information officer		$84,500-$110,500
R6.4	Establish an additional 1.5 to 2.0 FTE technical support positions		$90,000-$120,000
R6.16	Purchase help desk software to enhance technical support services	$1,000	
R6.19	Purchase network management software to assist in effectively monitoring network activities	$19,000 [1]	
R6.22	Purchase city-wide e-mail software system	$2,755	
R6.27	Provide network administration and support training Provide A+ certification training to network support personnel	$8,000-$11,000 [2] $1,875	
	Total [3]	**$32,630 - $35,630**	**$174,500-$230,000**

[1] The $19,000 represents the cost of one specific network management module. The total cost to implement a network monitoring system will depend on the number of different modules the City decides to purchase. Before the City purchases network management software, the City should consider its network requirements and the appropriateness of the software for its platform.

[2] The estimated one time cost is per employee sent for training.

[3] The financial implications summary table does not include the cost to the City of making necessary systems Year 2000 compliant. The total cost is not known because the City has not completed a comprehensive assessment of its systems. The additional cost could be significant.

Not included in the table above are the financial implications associated with technology needs contained in recommendations within the other sections of the report. These recommendations include purchasing a new income tax system **(R3.20)**, implementing an automated time and attendance system **(R4.1)**, instituting an on-line purchasing system **(R5.9)**, purchasing an automated water meter reading system **(R8.25)**, updating engineering technology **(R10.5)**, purchasing a field inspections system **(R10.16)**, and investing in a management information system for the street department **(R11.20)**. In addition, the above table does not reflect the total investment in technology needed by the City to ensure its technology infrastructure and operations adequately support city-wide services. The cost associated with this re-prioritization of technology may be significantly more than the financial implications presented in this report.

Conclusion Statement

The computer services department of the City of Youngstown appears to manage the current technology infrastructure as well as can be expected given the current organizational structure and available technology tools. However, the City needs to make significant improvements in its technology infrastructure. The City also needs to centralize management of technology. The director of YCS does not have technology responsibilities on a city-wide basis. The City needs a full-time chief information officer to provide key leadership in managing it's technology.

The City is implementing technology in the absence of a comprehensive strategic technology plan. The lack of a well-developed plan that prioritizes all system projects and provides a detailed timetable with identified funding sources could result in ineffective and costly implementation of technology. In addition, the City does not have a technology steering committee. The Data Processing Board reviews major technology purchases but does not have broad technology planning and oversight responsibilities. The peer city operational statistics and ratios table (**Table 6-5**) shows that even though Youngstown is the largest city in the peer group in area and population, and has the second largest number of employees, it spends significantly less on technology than either Canton or Springfield. In addition, the current amount budgeted for technology does not support the current technology infrastructure nor does it provide for the needed changes.

The City's existing systems use multiple operating systems and a variety of office automation software which increases the cost of providing technical support. The establishment of technical standards could help the City implement and maintain technology more cost-efficiently. Some of the City's departments, such as sewer, engineering, permits, and inspections and finance, do not appear to be fully utilizing available technology. The City does not currently have a wide area network (WAN) but is in the process of developing a WAN. However, because the City has not performed an analysis of the network structure, it is not known whether the new WAN will be sufficient to handle the City's current or future transmission and communication needs. The peer cities (Canton, Lorain and Springfield) have WANs and support Web Sites.

The City does not have a staff development program for technology. The City needs to ensure staff are adequately trained so that technology is used to improve the operations of the City and provide quality service to the citizens of Youngstown. Additionally, the City does not have a central help desk. Providing quality technical support is an important component in ensuring that technology is effectively used once staff are trained.

The lack of a comprehensive database of its hardware and software has hindered the City's ability to adequately assess the impact of Year 2000 on its operations. Because the City has not yet completed a comprehensive assessment of all of its systems, the total cost to make the City's systems Year 2000 compliant is not known. Adequate funding and resources need to be dedicated to the City's Year 2000 efforts. Because of the short time remaining, the City should also develop a Year 2000 disaster

recovery plan detailing steps the City will take in the event that appropriate measures cannot be effectively implemented or efforts made to address Year 2000 compliance fail. If the City needs to secure the services of additional vendors, the cost of these services will be expensive because of limited resources in the computer industry. At worst, the City may not be able to find a vendor that is available. Properly addressing the Year 2000 issue is also important because the City's Year 2000 efforts are being required to be publicly disclosed in its financial statements.

Revenue Generation

Introduction

This section represents a high level assessment of the major sources of revenue for the City of Youngstown (the City) and the capacity of the City to raise additional revenue. Only the revenues of the general fund were assessed in this section. The general fund is the City's general operating fund.

Background

Table 7-1 shows general fund revenue for the City by revenue type for the past three years.

Table 7-1: General Fund Revenue

Revenue Type	1996	1997	1998
Local Taxes	$18,631,227	$20,795,913	$23,291,327
Intergovernmental	3,239,867	3,400,895	3,677,667
License & Permit	462,770	582,335	375,725
Charges for Services	3,242,340	3,162,900	3,088,719
Fines & Forfeitures	576,090	550,204	691,496
Interest	96,062	109,728	324,167
Miscellaneous	1,835,077	724,874	961,238
Other Revenues	29,458	50,602	3,241,880
Transfers In	2,728,516	468,487	350,175
Total General Fund Revenue	**$30,841,407**	**$29,845,938**	**$36,002,394**

Source: City revenue reports

The major sources of the revenue types presented in **Table 7-1** are as follows:

- **Local Taxes** - sales tax, real estate tax and personnel property tax
- **Intergovernmental** - local government assistance, local government state sales tax, property tax allocations, beer and liquor permits, and various state grants
- **Licenses & Permits** - building permits, plumbing licenses and permits, electrical licenses and permits, HVAC licenses and permits, food establishment licenses and permits, and various other licenses and permits

- **Charges for Services** - special assessment charges, record charges, sanitation fees, interfund reimbursement for services, and various other charges for services
- **Fines & Forfeitures** - criminal court costs and fines, and parking fines
- **Miscellaneous** - deposit accounts, sale of land and equipment, rental revenue, and cable TV franchise fee
- **Other Financing Sources** - reimbursement of prior year expenditures and various reimbursements.

As **Table 7-1** indicates, the City's 1998 general fund revenue has increased significantly (approximately 21 percent) from 1997. There were modest increases in most of the revenue sources. However, the vast majority of the additional revenue was attributable to two unanticipated cash receipts; a $2.0 million increase in inheritance tax receipts and a $4.3 million worker's compensation rebate, of which $3.2 million was allocated to the general fund. The majority of the decrease in revenue from 1996 to 1997 is attributable to the City transferring in less cash into the general fund in 1997 as compared to 1996. In general, the operating revenues of the City have been stagnant over the past three years.

Table 7-2 shows 1998 general fund revenue for the City of Youngstown as compared to the peer cities. In reviewing the revenue reports from the various cities, inconsistencies were noted in the manner in which different revenue sources are classified. For example, the cities of Canton and Lorain post real estate and personal property tax revenue in the general fund while the City of Youngstown receipts these funds into the debt service and police/fire pension trust funds.

Table 7-2: 1998 General Fund Revenue (000's)

	Youngstown	Canton	Lorain	Springfield	Peer Average
Local Taxes	$23,291	$29,576	$17,489	$20,564	$22,730
Intergovernmental	3,678	6,919	3,644	4,535	4,694
License & Permit	376	793	446	512	532
Charges for Services	3,089	3,506	384	775	1,939
Fines & Forfeitures	691	502	778	1,066	759
Interest	324	1,630	184	701	710
Miscellaneous	961	938	359	1,824	1,021
Other Revenues	3,242	0	15	79	834
Transfers In	350	11	0	0	90
Total General Fund Revenue	**$36,002**	**$43,875**	**$23,299**	**$30,056**	**$33,308**
Population	87,450	81,079	69,800	67,480	76,452
Revenue Per Citizen [1]	**$413.82**	**$541.67**	**$332.84**	**$448.60**	**$434.23**

Source: Revenue reports from cities

[1] - It should be noted that inconsistencies were noted in the manner in which different revenue sources are classified.

The City is receiving the second lowest revenue amount per citizen when compared to the peers. In assessing the City's ability to maximize their revenue sources, the focus of this section will be mainly on the license and permit, and charges for services line items. These two categories represent revenue sources that the City has control over in setting the applicable fees and charges.

Performance Measures

The following is a list of performance measures that were used to review the revenues of the City:

- Assess the types of revenues collected
- Assess the individual charges for various charges, fees, permits and licenses
- Assess the City's ability to maximize funding available

Findings\Commendations\Recommendations

F7.1 The City does not have adequate procedures in place to ensure available revenue sources are maximized. Income tax revenue, which comprises approximately two-thirds of general fund revenues, is being lost due to the failure to identify potential taxpayers, poor management controls and inadequate system capabilities. Estimates in the **Income Tax** section of this report indicate the City could be realizing an additional $5.0 million or more annually in income tax revenue. Inadequate billing and collection procedures identified in the demolition and vacant lots program subsections of the **Street Department** have resulted in an estimated annual loss in revenue of approximately $500,000. For example, the vacant lot program did not bill approximately $210,000 to property owners for services rendered due to confusion surrounding a mayoral directive concerning overtime in 1998.

R7.1 The management of the City should review and revise the procedures in place to maximize available revenue sources. Because of the limited opportunities available for raising additional revenues and the increasing cost of providing services to citizens, maximizing available revenue sources is critical to maintaining financial stability. Various sections throughout this report offer recommendations regarding maximizing revenue. Management should consider these recommendations and identify other means to ensure all potential revenue is identified and collected.

F7.2 Potential revenue is being lost due to poor monitoring and management practices regarding delinquent accounts. Significant delinquent accounts identified during this audit include the following:

- $620,000 in delinquent income tax
- $1.9 million in delinquent water, sewer and sanitation charges
- $570,000 in delinquent demolition charges for the past two years. However the City has indicated that total uncollected demolition accounts as of October 29, 1999 total in excess of $2.8 million.
- $750,000 in delinquent abatement charges

Individual departments are responsible for monitoring their delinquent accounts. The City has contracted with a local attorney's office for collection services for all City departments. Although the water and income tax departments have some procedures in place to pursue delinquent accounts internally, the streets department uses the collection agency entirely for billing and collection efforts. This results in lost revenue for the City as the collection agency charges 21 percent of gross collections for its services. The low collection rate on delinquent accounts indicate that both internal and external collection efforts are not adequately maximizing revenue.

R7.2 Because of billing and collection deficiencies noted throughout this audit, instituting proper billing and collection procedures must be prioritized. Different options exist to improve the billing and collection procedures within the City. However, no matter what option is chosen, every effort should be made to pursue collection internally before the account is assigned to the outside collection agency. The City should not pay the outside collection agency 21 percent for accounts which are relatively easy to collect. The City should only assign delinquent accounts to the collection agency after all internal collection possibilities have been exhausted.

One potential option for maximizing internal collections efforts is to centralize billing and collection efforts under the finance department. The finance department would be responsible for the billing and collection of the various charges and fees based upon information provided by the different departments. Large operations such as income tax and utilities would still maintain their own billing and collection functions. Centralizing the billing and collection for smaller charges and fees would help ensure adequate procedures in place to maximize collections. In addition, the City should consider purchasing billing software at a minimal cost to aid the finance department in this effort.

Once the account is assigned to the collection agency, the City should have procedures in place to ensure the agency is performing the necessary steps in their attempt to collect. The collection agency should provide the City with regular status reports on all delinquent accounts assigned to them including collections made and efforts directed at collecting accounts still outstanding. See the **Income Tax** section of this report for additional discussion related to monitoring the accounts assigned to the collection agency.

The City should develop formal delinquent account and write-off policies which should be approved by the mayor and finance director. These policies should address when an account is to be declared delinquent, what procedures will be applied internally to seek collection, when an account is to be turned over to the outside collection agency, and under what circumstances an account is to be written off.

F7.3 As discussed in the **Engineering, Permits, and Inspections** section of this report, there are significant questions related to the City's ability to properly monitor and enforce its license and permit requirements. As the section notes, the City does not require general contractors to be licensed, although all the peer cities do. Requiring general contractors to be licensed could potentially generate an additional $36,000 in annual revenue for the City. Although the City does require additional contractors (electrical, plumbing and HVAC) to be licensed, **Table 7-3** indicates the City is not realizing as much revenue associated with licensing those contractors as the peer cities.

Table 7-3: License Revenue

Type of License	Youngstown	Canton	Lorain	Springfield
General Contractors License	0	37,225	34,695	(1)
Plumbing License	5,180	13,945	0	(1)
Electrical License	4,650	17,455	11,200	(1)
HVAC License	4,450	11,875	0	(1)
Total	**14,280**	**80,500**	**45,895**	**133,772**

(1) - Springfield does not track revenue from individual license types

To determine why Youngstown receives less revenue from the licensing of contractors than the peer cities, the licensing fee structures were examined. **Table 7-4** shows the licensing fees charged for licenses issued by the City and the peers.

Table 7-4: Licensing Fees

Type of License	Youngstown		Canton		Lorain		Springfield	
	New	Renewal	New	Renewal	New	Renewal	New	Renewal
General Contractors License	N/A	N/A	$125	$125	$150	$100	$300	$150
Plumbing License	$100	$50	$125	$125	$150	$100	N/A	N/A
Electrical License	$100	$50	$125	$125	$150	$100	$300	$150
HVAC License	$100	$50	$125	$125	$150	$100	$300	$150

Note: Plumbing licenses are handled by county in Springfield.

As noted in **Table 7-3**, the City of Youngstown licensing fees are well below those of the peer cities. In addition, the City does not have adequate procedures in place to ensure all required contractors obtain the appropriate licenses.

R7.3 The City should institute adequate procedures to ensure all contractors performing work within the City are properly licensed. These procedures could include monitoring records for expiring licenses and verifying those contractors are no longer in business, cross referencing the various permits to the licensing records, and performing spot checks of contractors doing work throughout the City using inspectors who are canvassing streets within the City daily. These procedures would not only increase revenues received from the issuance of licenses, but also help ensure work within the City is being performed in accordance with the applicable requirements. In addition, the City should review its current licensing fee structure to ensure revenue sources are maximized.

Financial Implications: The financial implications associated with requiring general contractors to be licensed is presented in **R10.6** in the **Engineering, Permits, and Inspections** section of this report. Instituting proper procedures to monitor the licensing of other contractors and enacting a fee schedule more in line with the peer cities indicates additional annual revenue of $43,275 could be realized by the City based on the City of Canton.

F7.4 **Table 7-5** indicates that Youngstown is receiving significantly less revenue associated with certain permits as compared with the peer cities.

Table 7-5: Permit Revenue

	Youngstown	Canton	Lorain	Springfield
Building Permits	122,419	119,971	290,537	214,558
Plumbing Permits	13,833	42,894	15,075	0
Electrical Permits	33,786	47,179	38,411	51,431
HVAC Permits	24,098	31,299	0	44,480
Fire Permits	0	0	29,950	13,520
Food Establishment Permits	90,880	8,489	0	0
Total	**285,016**	**249,832**	**373,973**	**323,989**

The fee structures for the types of permits included in **Table 7-5** are based on different factors that include the size and cost of the project, the type and number of electrical and plumbing fixtures and whether the project is residential or commercial. In comparing Youngstown's fee structure to those of the peer cities, it appears Youngstown's fees are consistent. However, there are significant deficiencies in the permitting process (see **Engineering, Permits, and Inspections** section for additional information). Poor management practices, inadequate documentation, and inadequate monitoring procedures do not ensure projects are being completed in Youngstown with the necessary permits being obtained.

R7.4 The City should institute effective management controls and procedures to ensure compliance with the City's permitting requirements. Recommendations provided in the **Engineering, Permits, and Inspections** section of this report and others should be considered in an attempt to maximize revenue and ensure compliance.

Financial Implications: If the City could increase compliance and issue a similar number of permits as the peer cities, additional annual revenues of approximately $127,000 could be

realized using peer averages for similarly issued permits (building, electrical, plumbing and HVAC).

F7.5 The City of Youngstown is consistent with peer and other cities in the types of services it charges. However, in examining the fee structure used to determine the charge for the service, it was noted that Youngstown's fee for towing and impounding is less than those charged by the two peer cities that perform these services. Youngstown charges $40 per tow and $5 per day for impounding. The City of Canton charges $50 to $80 per tow, $5 per day for impounding, and $10 per vehicle for impound administration. The City of Lorain charges $55 to $75 per tow and $10 per day for impounding. Towing services are performed by outside contractors in Springfield.

R7.5 The City of Youngstown should consider increasing the fee it charges for the towing and impounding of vehicles to a level which is consistent with the peer cities. Increasing towing and impounding fees would not only result in higher revenues for the City but higher penalties could also increase compliance with applicable parking laws and regulations.

Financial Implications: By increasing towing and impounding fees to levels consistent with those of the peer cities, an increase of approximately 45 percent, the City could realize an additional $11,000 in annual revenue.

F7.6 The water and sewer enterprise funds reimburse the general fund for certain costs that include space rental, computer services, and salaries related to administration, computer services, law department and public works. The amount of reimbursement reported in the general fund for 1998 was $658,370. The City of Springfield reported reimbursements for similar services totaling approximately $913,000 in 1998.

R7.6 The City should consider reviewing its current method of charging enterprise funds for general fund expenditures. Because enterprise funds are intended to be self-supporting and should be establishing fees at a level necessary to cover operating costs, the City should ensure that all applicable services and costs of the general fund are appropriately charged back to these funds.

The amount of addition revenue is contingent upon the City developing a detailed indirect cost allocation plan. This plan would describe the general services provided to non-operating funds and other agencies, such as utilities, office space and data processing services, and allocate the cost of these services in an equitable manner. In addition, the City needs to determine if additional services could be reimbursed through the Community Development Agency.

F7.7 The City currently owns two attended and one self pay parking lots. The management of these lots, as well as City parking meters, is contracted out to a private company. Annual revenue received from the parking lots and meters is approximately $161,000, which is posted to the parking lot enterprise fund. The contract with the management company sets the management fee at $31,600 per year for the three parking lots and $61,000 per year for the parking meters. A representative from the management company checks the box two times a day to empty cash and check for parking violations. Monthly parking permits are issued through the management company's office. Parking meters are emptied daily and any required maintenance is performed by the same person.

R7.7 The City should conduct a cost-benefit analysis of bringing the management of parking meters back in-house. Specifically, it appears that one full time person would be able to complete the daily duties relating to parking meters. In addition, bringing this function back in-house would require minimal investment other than salaries and benefits.

Financial Implications: Assuming a full-time person could be hired to perform these duties at $35,000 in salary and benefits, the City could potentially realize an annual cost avoidance of $26,000.

F7.8 In 1993, an investment company donated the Wick Building to the City. The building market value was appraised at $1.1 million in 1994 by a state certified general appraiser. However, the building remains a financial burden to the City. The current occupancy rate in the 13 story building is approximately 52 percent, which includes three City departments who aren't charged rent and a not-for-profit organization who is charged $1 per year. Yearly rent revenues of approximately $85,000 are not enough to cover custodial and other operating costs to the City, which exceed $125,000 annually. The City has historically had problems with maintaining leases and collecting rent from tenants on a timely basis. However, the City has addressed these problems by issuing leases to all tenants, initiating procedures to collected overdue rent and instituting timely billings for rent payments owed. In addition, estimates to provide capital maintenance to the building have been approximately $325,000.

R7.8 The City should conduct a study to identify ways in which the financial burden to the City associated with Wick building could be eliminated. The City should consider the following issues:

- Determine if the current rent structure is consistent to similar properties within the City.
- Contract with a property management firm to run the operations of the building, manage the current tenants, and pursue potential tenants.
- Sell the building on the open market. This decision must be made keeping in mind that three of the current tenants are City departments which will either require

additional space at other City owned buildings or will pay rent to the buyer if they remain at their current location.

F7.9 An inquiry of the State of Ohio unclaimed funds program indicates there is approximately $1,600 as of August 1999 which the City of Youngstown may be entitled to.

R7.9 The City should investigate these claims and file the necessary paperwork to obtain payment if they are entitled to these funds.

Financial Implications: Investigation and filing of the necessary paperwork associated with these claims could produce one time revenue of $1,600.

Financial Implications Summary

The following table summarizes the total estimated revenue enhancements and cost avoidance from the above recommendations. The City of Youngstown should consider the potential operational benefits which certain of the recommendations might affect.

Recommendation	One Time Revenue Enhancements	Annual Additional Revenue	Annual Cost Avoidance
R7.3 Properly Enforce License Requirements and Update Fees		$43,275	
R7.4 Properly Enforce Permit Requirements		$127,000	
R7.5 Increase Towing and Impounding Fees to those of the Peers		$11,000	
R7.7 Bring management of Parking Lots and Meters In-house			$26,000
R7.9 Follow-up on Unclaimed Funds	$1,600		
Total	**$1,600**	**$181,275**	**$26,000**

Conclusion Statement

Because there is a limited number of available revenue sources, the City of Youngstown needs to institute policies and procedures aimed at maximizing the revenues received from those sources. Poor management practices, inadequate systems and lack of sound financial controls has resulted in the loss of an estimated $5.5 million in annual revenues for the City. In addition, there are not adequate procedures in place to properly monitor and manage monies owed to the City. These delinquencies are estimated to be approximately $3.8 million.

The deficiencies in the licensing and permitting process has had a significant effect on the revenues the City receives from those sources. Efforts to ensure compliance with the applicable regulations would not only increase the revenue the City receives, but more importantly, ensure the integrity of the work being performed throughout the City. Other fees and charges should be reviewed to determine if they are properly covering the cost of the services being provided. Also, given the recent financial difficulties, the City should conduct analyses of certain programs, such as the parking lots and meters, as well as the Wick building, to determine if there are alternatives which could provide additional revenue to the City or reduce the operating cost of these programs.

Water Department

Introduction

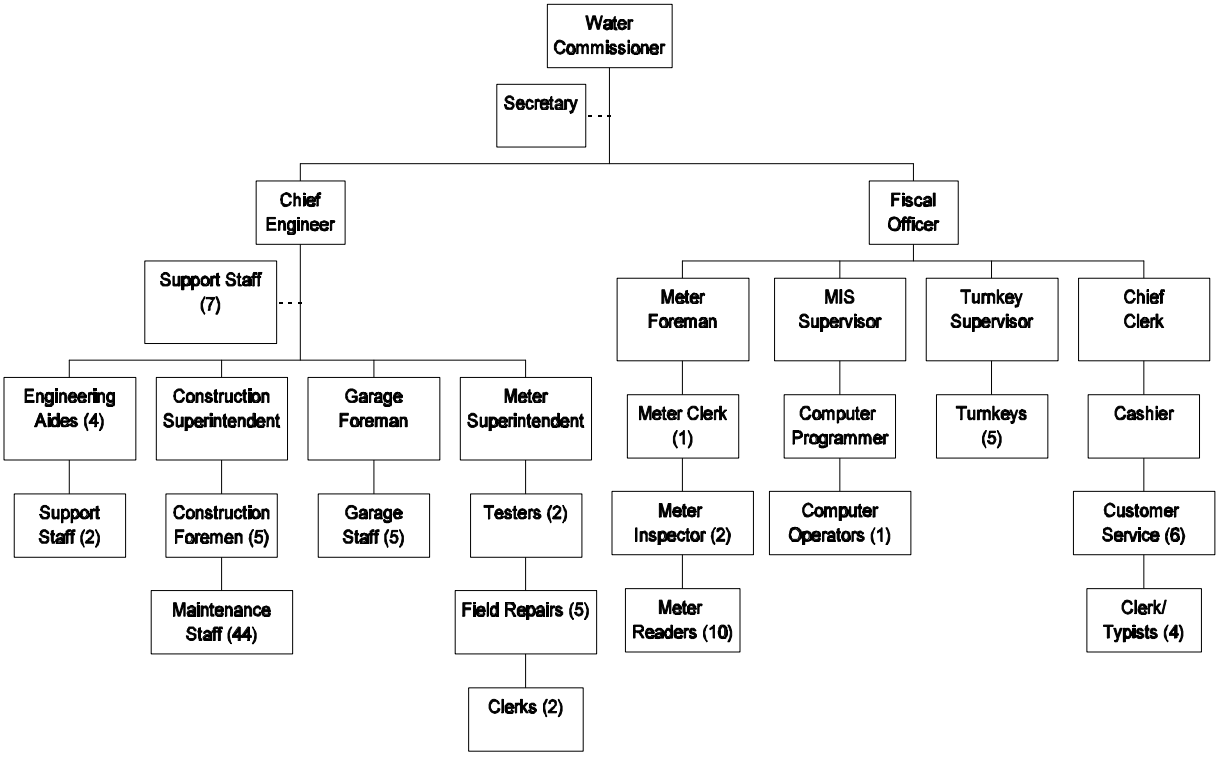
This section focuses on the Youngstown Water Department (YWD). Municipal water departments are often responsible for treatment facilities and reservoirs and in addition to maintaining the distribution system, meter reading and revenue collection operations described herein. The YWD acts solely as a distributor. Water is purchased from the Mahoning Valley Sanitary District (MVSD) which maintains Meander Reservoir. Comparisons to peer cities are adjusted to reflect this difference.

Background

Organizational Chart

The YWD employs 118 full-time equivalent employees (FTEs) as detailed in the chart below.

Organizational Function



The YWD is primarily responsible for the following functions:

- Deliver treated potable water from MVSD according to established agreements
- Operate pump stations, holding tanks, a reservoir and valve pits throughout the system
- Repair or replace water lines as needed
- Maintain the operation and accuracy of water meters
- Read or estimate each customer's water consumption
- Provide a bill to each customer
- Collect payments for water, sewer and sanitation services
- Pursue delinquent accounts
- Maintain the department's fleet of vehicles and other equipment
- Perform various administrative functions

Water departments are traditionally organized within municipal governments as enterprise operations. The department is intended to function much like a private sector business, relying on charges for services to support the costs of operations. Through water meter readings, the department is able to determine the amount of water used by each customer and bill that customer accordingly. Water departments also encompass large scale physical facilities which are operated and maintained by department employees. These two characteristics, the proprietary nature of operations and the extensive physical plant, create specific managerial challenges for water department administrators. Among those key challenges are the following:

- Establish proper replacement criteria for physical facilities with a limited useful life
- Establish fee structures which provide adequate revenues to support both regular operating costs and capital improvement replacement schedules
- Adopt fee structures which are equitable for all customers
- Establish policies which maximize revenues collected for services provided

Summary of Operations

The YWD serves approximately 58,000 active customers in Mahoning and Trumbull counties. Surrounding communities served entirely or in part by the department include Austintown, Boardman, the Village of Canfield, Canfield Township, Mineral Ridge, Liberty, North Jackson and Girard. Over the last several years, the YWD has experienced a decline in city residential customers while the number in surrounding communities has grown. Industrial/commercial customers are declining both inside and outside the City. The amount of water sold has also declined significantly. Department officials attribute the decline in water consumption not only to a shrinking number of customers, but to the following factors:

- Preventing leaks at abandoned properties by capping off water service at the street connection
- Low-flow toilets which are installed in new housing developments
- Replacement of pipe sections prone to severe leaks
- Increased policing efforts to deter the theft of water

The MVSD is responsible for complying with the water quality regulations and treatment procedures mandated by the EPA. Employees of MVSD regularly check water quality at various points throughout the City's distribution system.

The chief engineer manages the West Avenue unit which is responsible for maintaining the system's 726 miles of water line and other facilities. Adequate water supplies and pressure are maintained throughout the system by pump stations, holding tanks and a 30 million-gallon reservoir. These systems are monitored by a computer network which allows the department to track water levels in tanks and perform other functions such as turning pumps on and off. Measuring the volume of water consumed by customers is achieved through various sizes of water meters installed at each site. Meter readers record water consumption on a monthly basis.

The YWD bills for water and sewer services for all customers and adds a garbage collection fee to the bill for city residents. Payments not received by the due date indicated on the billing statement become delinquent. Accounts which become delinquent are pursued through a series of mailings, an outside collection agency and door-to-door collectors known as turnkeys. In addition to the operations explained above, the department maintains a substantial inventory of replacement pipe, meters, machinery, vehicles, replacement parts, computer systems and facilities. Administrative functions performed by the department include payroll processing, procurement and budgeting. The YWD is a member of the American Water Works Association (AWWA).

Table 8-1 below lists YWD actual and budgeted expenditures for FY 1997, FY 1998 and FY 1999.

Table 8-1: Actual and Budgeted Expenditures, FY 1997 - FY 1999

CATEGORY OF EXPENSE	FY 1997 ACTUAL	FY 1998 ACTUAL	FY 1999 BUDGETED
Personnel Services	$3,275,423	$3,433,757	$3,634,000
Overtime wages	$264,664	$135,765	$196,500
Fringe benefits	$142,517	$141,799	$161,800
Pension Plans	$819,430	$882,427	$885,000
Other Employee Benefits	$520,588	$707,452	$550,000
General Insurance	$52,138	$83,009	$85,000
Employee Insurance	$334,713	$87,001	$335,000
Professional Services	$468,761	$587,861	$599,000
Other Operating Expenses	$923,836	$977,253	$1,020,000
Utility and Telephone Costs	$567,157	$551,363	$570,000
Water Purchases	$6,738,169	$6,644,902	$6,850,000
Buildings, Infrastructure and Equipment	$465,953	$184,472	$2,440,000
Principal and Interest Payments	$765,180	$724,473	$728,160
Transfers and Miscellaneous Expenses	$783,403	$506,164	$611,525
Total	**$16,121,932**	**$15,647,698**	**$18,665,985**

Source: Youngstown finance department 1999 budget report

Explanations of several expenditures in **Table 8-1** and significant annual variances are as follows:

- **!** Other employee benefits include: health, dental, vision and life insurance. The YWD indicated that the large variance in 1998 was due to an extra quarterly payment on insurance.
- **!** Water purchases are comprised of payments to MVSD for water and capital improvement costs at the Meander Reservoir facility.
- **!** Buildings and infrastructure costs are for various capital improvements. The YWD indicated that the large cost increase projected in 1999 is due to West Avenue construction projects.
- **!** Expenditure transfers of $100,000 are made annually to the emergency maintenance fund.
- **!** Miscellaneous expenses include: mileage, travel, advertising and printing, repair services, maintenance services, office supplies, gas and lubricants, settlements, EPA permit fees and board of control salaries.

Key Operating Statistics

Table 8-2 below lists various comparative figures for water department operations for Youngstown and the peer cities. The peer city figures were derived from interviews and documentation provided by the water utility directors for the respective peer cities.

Table 8-2: Peer City Comparison - FY 1998

	Youngstown	Canton	Springfield	Lorain
Total Residential Customers	54,141	37,282	20,200	23,302
Total Industrial/Commercial Customers	3,593	3,486	2,750	121[3]
Total Customers	57,734	40,768	22,950	23,423
Water Pumpage (Millions of gallons per day)	21.6 MGD	23.5 MGD	11.9 MGD	11.1 MGD
Total Revenue (000s)	$17,346	$10,349	$6,300	$5,983
Total Operating Cost (000s)	$11,839	$7,404	$4,282	$4,649
Total Capital Cost (000s) [1]	$3,809	$1,912	$1,632	$2,136
Full-time Equivalent Employees [2]	118	77	32	53
# Customers per Employee	489	529	717	442
Operating Cost/Customer	$205	$182	$187	$198
Capital Cost/Customer	$66	$47	$71	$91

Source: Departmental records and interviews provided by department administrators

Notes: [1] Included in the capital cost reported for Youngstown is $2.9 million, which represents the capital portion of the amount paid to MVSD for the purchase of water.

[2] FTEs for distribution functions only

[3] Lorain industrial/commercial customers do not include rental properties or condominiums.

Performance Measures

The following performance measures were used to assess YWD operations:

- Assessment of staffing levels and operational effectiveness within each section
- Assessment of contractual benefits and employee qualifications
- Clarity, ease, efficiency and cost effectiveness of billing procedures
- Effective management of delinquencies
- Water rate comparison to peer cities and state averages
- Analysis of surcharge to non-city customers
- Adequacy of technology usage
- Assessment of Year 2000 compliance initiatives
- Effectiveness of lost water prevention techniques
- Adequacy of capital improvement planning techniques
- Effective administrative management
- Effective intergovernmental operations

Findings/Commendations/Recommendations

Staffing Assessment

F8.1 The comparison of staffing levels and work processes to peer cities and other organizations illustrates potential performance issues for the YWD. **Table 8-3** below lists the staffing levels for each of the departments' sections and the corresponding staffing levels for the peer cities. As the table illustrates, the YWD appears to have a disproportionately large number of employees, despite the fact that the YWD maintains the largest system among the peer cities. An efficient and well-coordinated allocation of employees across the organization is a particularly important issue as personnel costs are a primary operational cost of the department. While each peer organization is somewhat unique, the same basic functions are performed by each department and should have a similar number of personnel, adjusted for the size of the system.

Table 8-3
Full -time Employees by Section

	Youngstown	Canton	Springfield	Lorain
Administration	3	5	1.5	3
MIS	3	1	0.5	1
Meter Reading	14	5	4.5	5
Utility Clerks	6	19	1	13
Customer Service	6	8	4	1
Turnkeys/Special Collections	6	0	1.5	0
Engineering	5	0	3	4
Engineering Support	9	0	0	0
Construction	50	29	11	18
Meter Testers/Repairs	10	2	3	4
Garage	6	5	2	3
Dispatchers	0	3	0	1
Total	**118**	**77**	**32**	**53**

Source: Organizational charts and interviews with department administrators

Notes: YWD engineering support figure includes support positions such as stock clerk and administrative assistant. Springfield has several centralized functions such as a motor pool and management information systems. FTE estimate based on amount of work dedicated to water distribution operations.

F8.2 In order to provide an alternative analysis of employee levels, **Table 8-4** below lists a comparison of staffing levels per 10,000 customers by section for the YWD and the peer cities. As the table indicates, the YWD maintains staffing levels above the peer average of 18.97 employees per 10,000 customers. This table also illustrates that the YWD does not realize the economies of scale that should result in a greater number of customers per employee as the size of the system increases.

Table 8-4: Comparison of Staff per 10,000 Customers

Position	YWD	Canton	Springfield	Lorain	Peer Avg. With YWD
Administration	0.52	1.23	0.65	1.28	0.92
MIS	**0.52**	0.25	0.22	0.43	0.35
Meter Reading	**2.42**	1.23	1.96	2.13	1.94
Utility Clerks	1.04	4.66	0.44	5.55	2.92
Customer Service	1.04	1.96	1.74	0.43	1.29
Turnkeys	**1.04**	0.00	0.65	0.00	0.42
Engineering	0.87	0.00	1.31	1.71	0.97
Engineering Support	**1.56**	0.00	0.00	0.00	0.39
Construction	**8.66**	7.11	4.79	7.68	7.06
Meter Testers/Repairs	**1.73**	0.49	1.31	1.71	1.31
Garage	1.04	1.23	0.87	1.28	1.10
Dispatchers	0.00	0.74	0.00	0.43	0.29
Total	**20.44**	**18.89**	**13.94**	**22.63**	**18.97**
Difference in peer average staff per 10,000 customers (YWD figures included)					**1.47**
Difference in peer average staff per 10,000 customers (YWD figures *not* included)					**1.95**

Note: The peer averages above are shown with and without YWD data included to illustrate relative staffing levels. Categories of employees for the YWD are bolded to indicate when YWD employee classification ratios are the highest among the peers.

F8.3 The administrative section of the YWD is directed by the water commissioner. The primary responsibilities in this area are policy development and administrative management of the department. YWD policies are outlined in the department's rules and regulations manual. Administrative management involves tasks such as capital planning, budgeting, procurement and payroll. The commissioner is also responsible for community relations activities.

F8.4 The management information systems (MIS) section performs critical support and information management functions. MIS maintains all account information, generates management reports, billing statements and produces delinquency notices for the department through the Customer Utility Billing System (CUBS). Three FTEs provide this support function and are dedicated primarily to YWD operations. See the **Technology Implementation** subsection beginning with **F8.52** for more detail on technology issues.

F8.5 Meter readers record water consumption on a monthly basis using a hand-held electronic probe and interrogator device. Water meters, usually installed in basements, are wired to electronic touch pads, attached to the side of houses or other buildings. The probe connects to the touch pad and transfers account information electronically to the interrogator. At the end of each work day, meter readers connect their interrogators to a computer port located in city hall. The port transfers the information to the department's mainframe computer. The mainframe then adds the information to the history of each account. The department processes customer billings 11 times per month; once for each of the nine meter reading zones and two special runs for the overlapping of county and city residents. Bills are then disbursed through the U.S. mail. The meter reading clerk provides support to this section by answering phones, completing inspection forms and inputting new account information. Two inspectors perform all final reads, inspections on reported high reads, steel mill meter reads, underground meters and radio reads if the automated radio meters fail. See the **Billing and Collections** subsection beginning with **F8.28** for more detail on meter reading operations.

F8.6 The utility clerks manage all front desk activities. The lead cashier collects payments, balances the cash drawer and makes deposits. The assistant cashier accepts payments and balances her drawer. One clerk keypunches payments that the cashier balances at the drawer. This clerk also enters data into a batch list of account numbers and amounts paid. Another clerk uses this information to make a deposit slip and provides support to the clerks dedicated to answering customer calls. This clerk also completes the work orders for the meter inspectors. A third clerk checks the "Consumption Kickout Report" daily to check if any errors may have occurred in billings. Currently, all payments are mailed to the YWD where they are opened and sorted by employees. Payment information is manually entered into the department's utility billing system by various personnel. Customer payments are forwarded to the finance department where credits are made to various funds. Payments are then delivered in bulk to the bank for deposit.

R8.1 The YWD should consider alternative methods to collecting, recording and depositing payments. Requests for proposals should be developed and distributed to local banks for lockbox and laser check-reading services. The cost of these services is often offset by the additional interest income earned due to the deposit of payments on the same day they are received and a reduced need for utility clerks to process payments. Coordination with the MIS department is critical in the development and the analysis of the feasibility of such a proposal as data files will be required to be transferred between the bank and MIS on a frequent basis. The City of Canton is in the process of implementing a new software package that will allow them to establish a bank post office box with auto processing and laser reading of checks. The YWD's fiscal officer indicated that lockbox arrangements have been investigated in the past but he felt that charges were not cost effective. Any analysis of such an arrangement should compare the costs of the contract with the bank for processing, deposit and data transfer services against the increased interest income due to quicker deposits and the reduced need

for clerks to process payments. An additional benefit is less handling of cash and check payments in city hall.

The City of Springfield is under contract with Star Bank for such services. Billings are transmitted electronically twice weekly to the bank which in turn mails out billings within 48 hours. An envelope is enclosed with the billing and is pre-addressed to Star's lockbox. Payment processing occurs overnight. By 8:00 a.m., transactions are downloaded to the City's computer system and all payment information is available to staff. Springfield managers regard this as an excellent process and have exercised an optional 3-year contract renewal.

F8.8 Six employees provide customer service by answering questions from walk-ins, taking phone calls and providing copies of bills upon request. Customer service representatives do not accept water bill payments as that is the responsibility of the cashiers. This section has no work logs to document the number of calls or questions that each customer service representative receives each day. According to the chief utility clerk, most customer questions focus on bills which were larger than the customer expected or how to schedule a final reading when the customer is changing properties. The department is currently in the process of reviewing bids for a new phone system, yet automated options are not being considered. The City of Lorain has a touch tone directory that allows the customer to choose from the several options.

R8.2 The customer service section should focus on improving performance among customer service representatives by beginning to log and track their various activities. By tracking the number and type of service activities throughout the day, management could accurately assess staffing needs. Furthermore, an automated telephone answering system should be considered for this section. The City of Lorain's water department administrators have stated that it is a quick and efficient method to direct customer questions and can be easily upgraded through the installation of updated computer chips. As indicated in **Table 8-3**, the customer service function within Lorain's water department is staffed at a much lower level than Youngstown's. The automated phone system is an important part of this difference as fewer staff are required to answer customer questions.

F8.9 Turnkeys perform door-to-door collections on delinquent accounts if mailed delinquency notices fail to result in payment. In the event that a customer is not present at the time of collection or refuses to make a payment, the turnkey will either shut off the water supply to the property at the street box water main connection or leave another notice at the property requesting payment. Each turnkey maintains a daily work log to document these various activities.

According to interviews with peer city administrators, water utility administrators outside of the peer group and industry consultants, door-to-door collections appear to be a highly

irregular method of collection. The YWD is the only department among the peers that dedicates employees solely to the task of door-to-door collections. Furthermore, confronting delinquent customers with the threat of terminating service, combined with the policy of accepting cash payments, subjects collectors to an unnecessary level of risk. See the **Billing and Collections** subsection beginning with **F8.28** for more detail on turnkey operations.

F8.10 The engineering staff is comprised of 14 personnel including the chief engineer, engineering support staff and various specialists. This section is responsible for planning, coordinating and maintaining records of all system maintenance and upgrade activities. Also, engineering aides visit sites of reported leaks to determine what construction or maintenance activities will be required. The YWD does not have a formal dispatching section, as this duty is performed by various personnel within the engineering section. See the **System Maintenance and Repair** and **Capital Planning** subsections beginning with **F8.60 and F8.70** respectively, for more detail on engineering operations.

F8.11 Construction is the largest section within the YWD, accounting for nearly half of all employees. Major functions performed include water line taps and repairs, maintaining grounds at water tank and pump station sites, fire hydrant maintenance and other necessary field work. Construction personnel are trained to use backhoes and other equipment to excavate and repair or replace pipe. The department conducts in-house training for EPA certification which focuses on proper safety procedures involved in pipe installation and repair. The construction superintendent meets with the construction foremen each morning to delegate work orders and assign crews. Crews range in size from two to seven people, depending on the job. Work orders come from downtown collectors, inspectors and readers. Summer work focuses on hydrant maintenance work, landscaping and paving.

F8.12 The construction superintendent indicated in interviews that he believes there are more employees than are necessary to maintain the current workload in the construction section. However, he also indicated that union contract work rule provisions prohibit him from requiring employees to perform any tasks not specifically mentioned in their job description without paying them additional compensation for out-of-rank duties. Therefore, employees are not cross-trained in various tasks commonly required at a job site, thus resulting in a need for more employees. The chief engineer made similar statements when questioned about employee levels at the West Avenue unit.

Contrary to the statements of the chief engineer and construction superintendent, the City's labor attorney said in interviews that YWD managers have the authority to require employees to perform tasks not specifically mentioned in their job description. Also, no written policies currently exist within YWD work rules which prohibit such managerial authority.

R8.3 The YWD and the City's law department should develop clear policies regarding management rights and authority. YWD managers often complain that they are unable to require employees to perform tasks outside of their job description. While this problem seems particularly acute at the West Avenue site, the problem exists throughout the department. By expanding managerial authority in this area, employees will become cross-trained and better able to perform a wide range of tasks that are frequently required during a system repair job. This will lead to a decreased need for employees and a reduction in costs for the department.

F8.13 Due to the large percentage of costs incurred by the construction section, employee productivity in this section is particularly important to managing costs department-wide. As shown in **Tables 8-3** and **8-4**, the YWD's construction section maintains the highest total staffing and staffing per 10,000 customers of all the peer cities. Despite these indications of high staffing levels, work orders are not tracked by the construction superintendent to search for efficiencies. By requiring foremen to complete work orders in detail and subsequently tracking that information over time, the superintendent would have better indications as to what staffing and equipment resources are required to maximize efficiency. The City of Canton's construction section foremen are required to complete work orders in detail which indicate parts used, hours worked, employees at the site, water main characteristics and any unanticipated duties that were required. This information is used to allocate the number and type of work orders to various crews.

R8.4 The YWD should begin a work-order tracking program within the construction section. The superintendent and foremen should develop parameters for time and equipment needed to perform various types of common jobs under normal circumstances. These guidelines can then be used to gauge the productivity of construction crews.

In addition to the weaknesses explained in **F8.12** and **F8.13** above, the YWD construction section costs are high due to the fact that the water delivery infrastructure has been largely neglected for several years. This has resulted in an increasing amount of time and expense for system repairs and less for large scale system replacements and renovations. Also, city hall influence over work orders, as explained in **F8.38,** add to the cost of the construction section. Addressing these various issues could improve customer service and improve the infrastructure of the system.

F8.14 The meter superintendent and his staff are responsible for plumbing inspections, installing, maintaining, removing and repairing all system meters. Each meter is tested prior to being put into service using a flow bench device which calibrates its accuracy. According to the meter superintendent, approximately 350 new meters were installed in 1998 and 250 additional meters were "switched-out." These switch-outs can be caused by several factors including the demolition of a house, a stolen meter, fire damage or an electrical surge which damages the meter's computer chip. Customers questioning the accuracy of their meter can request to have

it tested. Two employees work on meter repairs at the West Avenue location while the meter superintendent performs all plumbing inspections and supervisory functions. Five employees install, maintain and remove meters. These five meter maintenance field personnel primarily work on touchpad sensor malfunctions or damaged wires which connect the touchpads on the outside of the house to the meters, usually located in the basement. Two clerks provide administrative support to this section.

F8.15 Much like the construction section, the meter maintenance superintendent does not track employee productivity through work order tracking. The superintendent maintains a file of all work orders which details work completed. However, this information is not used to track employee productivity over time. The meter superintendent explained that each of the five field employees is expected to complete eight work orders per day. He also explained that he has performed these maintenance duties himself and therefore can judge employee efficiency and productivity. Discussions with the YWD's MIS administrator revealed that he has the ability to create management reports which track the type of job completed by meter maintenance personnel. However, he has never been requested to produce such reports.

R8.5 Along with the construction section, the meter maintenance section should begin a work-order tracking program. Various jobs should be timed under normal circumstances to develop parameters for completion, allowing a reasonable time variance for travel between jobs. These guidelines can then be used to objectively gauge the productivity of employees. Increased productivity may allow this section to reduce employee levels. As indicated in **Table 8-4**, the YWD meter maintenance section has the highest ratio of employees to customers of all the peer cities. **Table 8-3** shows that five of the ten total positions within the meter testing and repair section are field maintenance personnel. A reduction of one position would allow the YWD to have four full-time meter maintenance personnel available for servicing customer meters and bring this section of the YWD in line with the peer average. Cross-training in this area should be considered to increase efficiency and allow the area to function with one less employee. In addition, meter maintenance personnel could potentially address problems with plumbing and delinquent bills in addition to their meter maintenance function if properly trained.

Financial Implication: A reduction of one field maintenance position could save the YWD approximately $35,500 annually in personnel costs. A one-time savings of approximately $11,000 would also be realized because this section would need one less vehicle.

F8.16 The meter maintenance section currently requires two trips to new homes for meter installations. The first visit is to ensure that the physical pipe settings are properly built during initial construction phases. At this point, a bypass section of pipe is installed, allowing water to flow into the home unmetered. This is to prevent dirt from getting lodged in and causing damage to meters during the construction phases of a housing development. Construction

companies are billed for water usage during this construction period by meters that are temporarily attached to fire hydrants at the entrance to the development. The second visit is to actually install the meters upon completion of construction. Interviews with peer city administrators indicated that this two-trip policy is not uncommon and may save future maintenance calls to the property. However, the YWD is completely dependent upon the meter maintenance superintendent for this function, as no other field maintenance personnel are qualified to perform plumbing inspections.

R8.6 The YWD should re-examine the plumbing inspection function to decrease dependency on one employee and increase field maintenance productivity. The YWD should pursue a policy which requires meter maintenance field personnel to have the proper plumbing inspection credentials at the point of hire or require proper training within designated time frames. Cross-training of these employees is key to increased productivity. The superintendent could likely allocate significantly more time to administrative functions if he were not required to perform all plumbing inspections. As additional office clerical staff is needed to provide customer service and administrative support when the superintendent is performing fieldwork, one clerical position could be reduced by allowing the superintendent to focus on his administrative duties. This reduction would still leave this section with one staffer to answer customer service questions and provide administrative support to the meter maintenance superintendent.

Financial Implication: The reduction of one clerk position in this section would save the YWD approximately $32,900 annually in personnel costs.

F8.17 In 1988, the department began a 3-year project to replace each of the meters throughout their system. The department hired 16 additional employees to assist with this effort. Many of those employees were eventually hired by the department on a full-time basis.

F8.18 The garage foreman supervises all auto operations including vehicle repair, maintenance and painting. Six employees provide service for 170 vehicles or pieces of equipment, including cars, trucks, vans, backhoes, lawnmowers and trimmers. As illustrated in **Table 11-18** and explained in **F11.34**, the City of Youngstown does not have a centralized garage for vehicle and equipment maintenance operations. The YWD's six garage operations employees maintain and repair an average of 28.3 vehicles or pieces of equipment. This is below the peer average of 30.5 vehicles or pieces of equipment maintained per employee.

R8.7 The YWD should consider a city-wide motor pool as a means of streamlining auto maintenance operations and to more effectively use vehicles. See **R11.11** for more details on a city-wide motor pool. Furthermore, as mentioned in **R8.38**, the YWD should re-evaluate the practice of painting all department vehicles as another means of streamlining costs.

F8.19 Personnel costs can be assessed not only by the number of employees within an organization, but by the compensation levels of those employees. **Table 8-5** below lists entry level hourly wages for common positions in the YWD and the peer cities.

Table 8-5: Entry-Level Hourly Wage Comparison

	Youngstown[1]	Canton[2]	Springfield	Lorain	Peer Average
Clerk	$10.19	$10.39	$8.64	$11.94	**$9.89**
Meter Reader	$14.67	$9.94	$10.26	$14.46	**$11.85**
Meter Maintenance	$14.82	$10.45	$11.54	$14.90	**$12.43**
Laborer	$9.04	$9.84	$11.04	$13.64	**$10.52**
Engineering Aide	$14.61	$11.03	$12.78	$12.90	**$12.33**
Machine Operator	$15.28	$11.24	$11.35	$14.90	**$12.67**
Average	**$13.10**	**$10.48**	**$10.94**	**$13.79**	**$11.62**

Source: Union contracts salary tables for the respective cities

Notes: [1] Youngstown wage amounts include 8.5 percent PERS pick-up as part of base wage.
[2] Canton wage amounts include 8.5 percent PERS pick-up as part of base wage.

As indicated in the table above, the YWD maintains salary levels which are thirteen percent higher than the average hourly wage among the peers for these common positions.

R8.8 The City should negotiate compensation levels which are in line with the peer cities. Small differences in entry-level hourly wages can have a large impact on personnel services costs as step increases, retirement, insurance, overtime and subsequent year negotiated increases are all based upon the initial hourly wage amount. **Table 8-5** above indicates that YWD maintains salary levels thirteen percent above the average for the peer cities and the highest hourly wage in three of the six classifications analyzed. The City should consider limiting cost of living adjustment (COLA) increases in future contract negotiations to put the YWD salary levels in line with the peers. **Table 8-6** below indicates the total cost avoidance which could be achieved if the City were to negotiate a contract that contained COLAs of zero, one and two percent for the next three years, rather than the 3.5 percent increase which was negotiated each year for the period 1996-1998.

Table 8-6 : Estimated Cost Avoidances from Limiting COLA Increases

Year	Historical 3.5% Increase	Proposed COLA	Projected Wage Cost	Estimated Cost Avoidance
2000	$3,856,023	0.0%	$3,725,626	$130,397
2001	$3,990,984	1.0%	$3,762,882	$228,102
2002	$4,130,668	2.0%	$3,838,140	$292,528
TOTAL ESTIMATED COST AVOIDANCE				**$651,027**

Notes: Actual 1998 wages and an additional 8.5 percent PERS pick-up amount were used as the base amount by which to calculate the costs of various percentages of increase and thus potential cost avoidances.

Financial Implication: Limiting the COLA increase to zero, one and two percent for the next three years could potentially result in a total cost avoidance of $651,027.

Contractual Issues

F8.20 Employee benefits compensation is determined by the bargaining agreement between the City and AFSCME local 2726. Of the 118 total employees, 106 are currently represented by the union. All employees not considered management are either required to join the union or pay a fair share fee. A summary of significant contractual findings, recommendations and financial implications related to the YWD are listed below. See the **Employee Related Issues** section for more information on employee compensation and benefits.

F8.21 In 1998, YWD employees averaged 6.5 sick days for a total of 756 sick days taken. The Bureau of Labor Statistics reports that the average amount of sick leave taken by 12-month government workers is 4.7 days. The YWD's sick leave usage is 1.8 days higher than this national average. Section 163.08 of the City's codified ordinance requires a doctor's excuse for sick leave as a means of managerial control.

R8.9 The YWD should continue focusing on efforts to reduce sick leave usage as this negatively effects productivity levels in the department. See **R2.2** in the **Employee Related Issues** section for more detail on this issue.

F8.22 Sick leave incentive payments are commonly used as a means of deterring sick leave abuse. If an employee does not take any sick leave within a specified period, the City will reimburse that employee at a pre-determined rate. However, the YWD's three month incentive period is the shortest of all the peer cities (Lorain does not offer a sick leave incentive). Furthermore, the quarterly rate of $94.65, or a maximum potential annual incentive of $378.60 may be overly generous.

R8.10 The YWD should limit sick leave incentive payments by extending the incentive period. Quarterly reimbursements should be replaced by annual reimbursements at a reduced amount. See **R2.5** in the **Employee Related Issues** section for more detail on this issue.

F8.23 The City offers retirement benefits to its employees through the Public Employees Retirement System (PERS), which administers retirement benefits for state, county and municipal employees throughout Ohio. In general, participation in this system requires the government entity to pay approximately 13.5 percent of each employee's salary into the system. An additional contribution of approximately 8.5 percent is usually deducted from the employee's paycheck. The YWD offers to pay the employees share of the PERS contribution, commonly known as "PERS pick-up," as an additional benefit. The PERS pick-up benefit results in a take home pay amount that is increased by 8.5 percent.

The City has made the YWD employees' pension contributions on their behalf for more than twelve years. Municipalities sometimes allow this benefit to become part of the negotiated agreement with the union in exchange for a wage freeze for a specified number of years. While this strategy may be less costly to the City in the short-term, it is considerably more expensive in the long-term. When the wage freeze expires, usually within a few years of the negotiated agreement, the City will incur the cost of both increased salaries and the 8.5 percent employee pension contribution based on that higher wage indefinitely. Consequently, the cost effectiveness of any wage freeze is nullified within five to ten years. In addition, several YWD positions, such as meter reader, storekeeper and data entry clerk, are paid wages at or above those of the peer cities. Therefore, employees benefit from both a higher than average wage among the peer cities and do not have to pay the 8.5% contribution into PERS.

The City of Youngstown has recently been taken out of a state of "fiscal watch" by the Auditor of State. Should the City encounter financial difficulties in the future, the policy of offering "PERS pick-up" should be closely scrutinized as this benefit represents a significant cost. See **F2.31** in the **Employee Related Issues** section for more detail on this issue.

F8.24 YWD AFSCME employees are entitled to a meal ticket during overtime work hours. Tickets are issued in amounts of $5.00 or more and are provided to employees upon completion of two additional hours of work beyond the standard eight hour day and for every four hours thereafter. If an employee works a ten-hour day, the employee will be paid straight-time for eight hours, time-and-a-half for the additional two hours and the meal ticket for the additional time worked. The YWD spent $7,247 on meal tickets in 1998 for both union and non-union employees. The tickets are paid as quarterly reimbursements which have no discernable relation to meals eaten as the department does not require documentation of meals purchased. See **R2.15** in the **Employee Related Issues** section for more detail on this issue.

F8.25 YWD employees receive longevity payments for each year of service after completing two years of service. Longevity payments are considered standard practice in municipal governments. However, the two year time period is the shortest time period to commence the longevity accrual among the peer cities. Four years is a more generally accepted standard for commencement of this benefit. The YWD should consider changing the longevity pay accrual commencement date to four years instead of two. Adjusting the commencement date for this benefit will not have a significant impact on current employee costs due to the high percentage of employees with more than five years of service. However, a policy change in this area could reduce the costs of new employees and current employees with less than five years of service. In 1998, the YWD spent $53,487 on longevity payments. See **R2.16** in the **Employee Related Issues** section for more detail on this issue.

F8.26 An annual cash payment of $504.65 is made to each YWD non-clerical union employee for a clothing allowance, while managers receive $547.00. Payments are made in April each year and are for the purpose of purchasing work related clothing such as coats and shoes. The City also provides uniforms for employees which include shirts and trousers. In 1998, the YWD spent approximately $45,800 on clothing allowances.

F8.27 Hiring qualified employees should be a primary management goal during the process of collective bargaining. Unqualified employees require the City to incur the time and expense of training. Furthermore, employees who lack adequate training are at greater risk of making errors in the performance of their duties which could endanger themselves, others or cause service interruptions. The superintendent of construction indicated that the EPA certification process is highly relevant and valuable training for the tasks performed by various YWD construction personnel. However, most employees are not certified. A listing of the number of certified and non-certified employees by job description is as follows:

Table 8-7: West Avenue employees with EPA certifications

Job Classification	Total Employees	Total EPA Certified
Construction Foreman	5	2
Engineering Aide	4	3
Machine Operator	7	0
Maintenance Man	7	1
Maintenance Man Helper	8	1
Laborer	16	0
Utility Repairman	1	0
Total	**48**	**7**

Source: YWD listing of employees and certifications

R8.11 The City should pursue employee qualification requirements during contract negotiations. The current labor contract between the City of Youngstown and AFSCME Local 2726 has only cursory reference to the qualifications and training of employees. The contract indicates that attaining an Ohio EPA operator license is strictly voluntary and the cost of such training will be paid by the City.

Billing and Collections

F8.28 As explained in **F8.5**, meter readers record actual consumption on a monthly basis for each of the nine meter reading zones. Meter readers work as a group, completing the readings for one zone before moving on to the next. According to the meter reading foreman, each meter reader is given the same route within each zone in order to develop some familiarity with the streets and any potential hazards such as vicious dogs. However, there are frequent changes in routes due to employees calling in sick or on vacation.

Productivity in this section is gauged only by the opinions of the foreman. No objective performance assessments have been developed. The foreman has not walked or timed any of these routes himself. No comparisons with similarly-sized cities or AWWA benchmarks have been developed. Statistics for employees, such as the total number of reads monthly, are not tracked. Furthermore, no performance incentives exist to encourage readers to move through their respective routes more quickly. The meter reading foreman claims that performance comparisons among employees are not useful due to differences in lot sizes, accessability of meters and other factors which effect the time needed to read the various routes.

R8.12 The meter reading section should develop and track performance benchmarks. The City of Cleveland's water department has developed a process to ensure productivity among meter readers. The primary productivity goal is to read each route in 5.5 to 6.5 hours. This goal allows meter readers significant flexibility for various weather conditions. Each route is periodically timed by a supervisor, allowing a certain number of seconds for remote and basement meters on various lot sizes. The sum of these times indicates the total number of hours needed to read a specified area. Routes are then structured to maximize the number of readings within the 5.5 to 6.5 hour time window established by management. While the system used in Cleveland results in a wide range of target reads for various routes, the average number of actual reads among all routes is 425 per day. This process of analysis not only allows for objective productivity assessments between meter readers, but allows management to know when the number of meter readers should be increased or when routes should be re-structured due to growth in the service area.

Using Cleveland's 425 daily reads per meter reader average, comparisons with Youngstown's productivity can be developed. Assumptions must first be developed for the number of working days in a year and the total number of reads to be taken. Assuming 230 working days

per year and an actual read taken each month for every customer, YWD meter readers average 301 reads per day, well below Cleveland's average of 425. The meter reading foreman claims that union work rules prohibit him from shuffling employees as needed to cover routes when readers are absent, thus requiring more meter readers and reducing the average daily number of reads per reader. This is not the position of the Youngstown law department, which claims that managers have the authority to allocate employees as they see fit.

Financial Implication: Assuming the YWD operated at the 425 reads per day average maintained in Cleveland, the meter reading section could operate with seven, rather than ten meter readers. This reduction in meter reader positions would equate to approximately $105,000 in annual salary and benefit savings for the YWD.

F8.29 Currently, each meter reader is assigned their own city pick-up truck to travel throughout the City. As a result, as many as ten city vehicles travel to the same meter reading zone each day. The meter reading foreman has not investigated the possibility of carpooling among meter readers to reduce travel costs. By carefully planning routes, common starting and ending points for meter readers could be established within each zone, eliminating the need for each meter reader to have their own vehicle.

R8.13 The YWD should consider alternatives to the current practice of allocating a City vehicle to each meter reader. Better planning in this regard could reduce vehicle acquisition, maintenance, fuel and parking costs.

Financial Implication: Assuming the replacement of ten pick-up trucks with two vans, a per vehicle cost of $11,000 and $16,000 respectively, and a five-year vehicle replacement cycle, the YWD could save approximately $15,600 annually in vehicle acquisition costs by requiring meter readers to carpool.

Another option is to reimburse employees for use of their own vehicles. The City of Springfield reimburses meter readers 32.5 cents per mile. Their annual costs are approximately $800 per meter reader. This is another service delivery option that the YWD should consider as it would reduce vehicle acquisition costs and the need for vehicle maintenance staff within the department.

F8.30 **Table 8-8** below summarizes various meter reading procedures and policies of Youngstown and the peer cities. The due dates and days to issue of various notices are all based on the date of issuance of the original water bill.

Table 8-8: Meter Reading and Billing Peer City Comparison

	Youngstown [1]	Canton [2]	Springfield [3]	Lorain [4]
Meter Reading Cycle	Monthly	Quarterly	Monthly	Monthly
Meter Reading FTEs	14	5	4.5	5
Customers per FTE	4,124	8,154	5,100	4,685
Days until payment due	15 days	10 days	15 days	17 days
Late Fees	5% of water and $1 to sewer	None	1% of current bill	10% of current bill + 2% of arrears
Days to second notice	30 days	90 days	30 days	30 days
Days to third notice	45 days Delinquent notice	110 days Delinquent notice	N/A	60 days
Days to fourth notice	60 days	120 days 72 hour warning	N/A	90 days
Days to fifth notice	N/A	N/A	N/A	150 days
Service termination	70 days	123 days	45 days	180 days
Return service charge	$20	$ 20	$15	$25
Certify delinquencies against rental or personal property	No	Yes	Yes	Yes

Source: Department reports and interviews with water department administrators

Notes: [1] Youngstown figures do not include personnel for turnkey operations.

[2] Canton allows two installments on quarterly bills. First payment of at least half of the bill is due ten days after bill notice is mailed. Second half payment is due 45 days after original bill. Meter reading FTEs should be reduced to one position within the year due to an automated meter reading system.

[3] Springfield processes all billings and payments through Star Bank

[4] Lorain is implementing a touch pad and interrogator system similar to Youngstown's system which may improve reading efficiency.

F8.31 The YWD policy of reading meters monthly rather than bi-monthly is expensive due to the labor intensive nature of actual monthly readings. As indicated in the **Table 8-8** above, the YWD has more total meter reading positions and the lowest ratio of meter readers per customer among the peer cities. Other municipalities and private firms were researched to find outside analyses of potential savings due to monthly verses bi-monthly meter reading

schedules. A report for the City of San Jose, California indicated savings of nearly 50 percent by moving from monthly to bi-monthly reads. Similar annual savings could be expected for Youngstown as only half as many actual reads would occur per year. Also, Consumer's Ohio Water Service, which is the private water company serving southern Mahoning County, reads meters on a bi-monthly basis.

F8.32 In initial interviews, the water commissioner listed the following reasons for monthly reads:

- Many residents are on fixed incomes and could not afford more than a monthly bill.
- The City's large percentage of rental units results in a transient customer population. Fewer accounts will become delinquent if billings reach customers monthly.
- Customers often object to estimated bills, preferring to be charged only for the amount of water they actually consume.
- Leaks and damage to water meters would go undetected for longer periods of time if monthly reads were not performed. This is of particular concern for elderly persons who may not be able to hear a leaky toilet or other appliance which could be leaking and thus cause a large increase in their water bill.

R8.14 The YWD should consider a system of actual bi-monthly meter readings, rather than monthly, while maintaining a monthly billing cycle. By estimating bills every other month, the YWD could reduce meter reading operational costs while maintaining the current level of customer service. Each of the issues raised above by the water commissioner, which support the current monthly actual meter reading schedule, can be refuted in order as follows:

- Affordable water bills and budget flexibility for customers can be maintained by a bi-monthly reading schedule with a monthly billing system.
- Monthly billings for bi-monthly actual readings would reach customers as quickly as the current system and would therefore have no negative impact on delinquency rates.
- Actual consumption levels are not currently recorded with actual monthly readings because the YWD's meters only measure water consumption in increments of 100 cubic feet. Any consumption between 100 cubic foot increments is not recorded. Furthermore, an estimation process is already in use for those situations in which meter readers cannot gain access to a property due to locked gates or vicious pets. Estimation is also used when severe weather prohibits reading or excessive absenteeism prevents a reading cycle from being completed on time. The CUBS system estimation program used in such situations produces a bill based on an average of several months of prior usage and in all likelihood would give the customer a bill closely reflecting actual consumption. Should the YWD encounter customers who insist upon actual readings, they can provide blank meter reading cards for the customer to fill out. This allows the customer to record actual consumption levels and call the water department with those figures. This process is currently used by the City of Columbus, Ohio.

- **!** Rapid identification of leaks is an important customer service issue. However, the MIS director indicated that no management report is currently being used to notify customers of unusually large consumption amounts. The YWD waits for customers to call them with high bill complaints prior to investigating any leaks. While a bi-monthly billing cycle may result in a longer period of time that leaks go unrepaired, this problem is apparently not a high priority issue for the department anyway due to the lack of attention dedicated to high bill detection and customer notification.

Financial Implication: Assuming a transition to bi-monthly readings, the YWD would only require half as many meter readers to maintain current service levels. This translates to a three employee reduction in this section, in addition to the three position reductions detailed in **R8.12** above. Based on the salary figures for the meter readers and inspectors as outlined in the bargaining agreement, this reduction would result in an additional annual personnel savings of approximately $105,000 in the meter reading section.

F8.33 Delinquent accounts are defined as any in excess of $50 for more than 30 days. Delinquent accounts are categorized as "active" or "dead". Active delinquent accounts are those which have a valid current address which allows the department to pursue collection efforts. These accounts are collected upon by mailing notices to the customer which informs them of the past due status of their bill, their right to an appeals process and a warning that service can be shut off if a payment is not received.

F8.34 There are important distinctions between active delinquent account collection procedures for rental units as opposed to owner occupied properties. Owner-occupied properties do not cause significant delinquency problems for the YWD as any delinquent water charges which accumulate at a property would either result in service termination or have to be paid before a mortgage company could process the sale of that property. Therefore, a property owner could not accumulate a water charge and avoid payment by selling the property. Rental unit collections can be more complex due to certain legal issues. In 1973, the City of Youngstown entered into a consent decree in federal court to resolve a class action suit initiated by renters served by the YWD. As a result of the agreement, criteria were established which address the termination of service. Those criteria are summarized as follows:

- **!** Service cannot be terminated if a prior owner or tenant is responsible for full or partial payment of the amount billed to the current customer
- **!** If a landlord responsible for payment orders a service to be disconnected, the tenant will be afforded the opportunity to have the account put in his/her name and the account will then become the responsibility of the tenant
- **!** A landlord is responsible for payment and has failed to or refuses to pay

This consent decree has resulted in a significant number of unpaid bills by landlords and renters. In particular, the YWD incurs losses when multiple renters at a particular property

change the name on the account, initiating a "fresh" account and effectively eliminating the delinquency while maintaining water service at the property. Furthermore, the consent decree provides no incentive to landlords to encourage payment of bills. The high ratio of rental to owner occupied properties in the City of Youngstown compounds the financial impact of this problem. **Table 8-9** below details the number of delinquent accounts and total charges owed to the YWD for several Youngstown landlords.

Table 8-9
Largest Delinquent Accounts

Account Number [1]	Number of Accounts	Arrears (30-60 days)	Arrears (Over 60 days)	Total Arrears
1691120	450	$20,450	$66,427	$86,877
1709560	37	$4,020	$44,121	$48,141
1715390	17	$1,538	$26,344	$27,882
1692710	13	$1,440	$23,489	$24,929
1692960	83	$6,952	$15,003	$21,955
1692490	15	$1,079	$19,926	$21,005
1710730	23	$2,266	$16,478	$18,744
1692840	88	$3,968	$13,285	$17,253
1692910	32	$1,712	$8,520	$10,232
1692980	99	$3,961	$6,267	$10,228
1692520	15	$1,064	$6,008	$7,072
1692850	28	$1,635	$5,279	$6,914
Total	**900**	**$50,085**	**$251,147**	**$301,232**

Source: Youngstown Law Department

Notes: [1] Due to privacy concerns, the Youngstown law department would not provide landlord names along with the account numbers listed in the table above.

F8.35 As evidenced by the table above, the costs of delinquencies are significant. According to the Youngstown law department, the only course of action available is an "action at law" which the law department claims to be pursuing against several landlords. Meetings are reportedly being scheduled with landlords in an attempt to negotiate a settlement. If settlements are not reached, complaints will be filed in the Mahoning County Court of Common Pleas in the hope of securing legal judgements against the delinquent landlords.

R8.15 The YWD should develop a more aggressive and coordinated effort to collect payments from delinquents, particularly landlords who intentionally avoid payments. Several options exist for the City to alleviate this problem. Among those potential courses of action are the following:

- ! Adoption of a city code revision which holds property owners ultimately responsible for payment of delinquent water charges. This code section should emphasize that actions at law will be pursued in collections. Such a policy would likely cause a landlord to require deposits for their rental properties, thus preventing the landlord from incurring the water charge should a renter leave unexpectedly.
- ! Delinquent notices for renters should be mailed to the renter and the landlord, allowing the landlord an opportunity to take action against the renter.
- ! A copy of rental agreements should be required at the time a water account is initiated as proof that the person applying for service is the actual renter.
- ! Clarified legal processes should be developed for seeking judgements against landlords, including filings in common pleas court and certification of delinquencies to property taxes through the county auditor.

The financial implication associated with increasing collections from delinquent landlords is included in **R8.17**, which addresses increasing collections on all delinquent accounts.

F8.36 As opposed to developing legal policies as outlined above, active delinquent accounts for which notices and warnings do not result in payment are turned over to the department's turnkeys. The turnkey section pursues collections in the field using listings of delinquent accounts generated by the management information systems section. A notice of delinquency is sent out about ten days after the due date of a water bill, explaining the customer's right to a hearing and allowing them an additional five days to exercise that right. If payment is still not received, a turnkey will visit the site to explain the situation to the customer and attempt to collect the amount owed. Each turnkey carries a two-way radio and two-part receipts to issue to customers who make payments. Two clerks in city hall accept deposits and collect turnkey revenues at the end of each day.

F8.37 The turnkey section lacks management focus and appears to be the source of other systemic problems throughout the YWD. The commissioner and turnkey supervisor have failed to establish standard operating procedures for several important functions. The assessment of the turnkey operation indicates a significant lack of productivity, effective management and employee accountability. Key deficiencies supporting this conclusion are summarized below:

- ! No productivity analysis has been performed by the turnkey supervisor or the water commissioner to determine if the revenue collected by turnkeys at least offsets the cost of those positions. As part of this audit process, an attempt to collect this information was made. However, the turnkey supervisor credited mailed payments from delinquent customers to the field collection totals of turnkeys and did not provide collection information within the time frames specified by the auditor. Therefore, this analysis was omitted from the report.
- ! The turnkey supervisor claims that turnkeys visit 25 to 30 houses per day. However, this information is not regularly recorded and analyzed, preventing managers from having any documented and objective assessment of employee effectiveness

- ! Management permits turnkeys to accept cash payments of delinquent water bills, subjecting these employees to the risk of being robbed
- ! Management does not maintain their copy of two-part cash receipts. Therefore, no paper trail exists to resolve payment discrepancies between the City and a customer.
- ! No minimum amounts or percentages of outstanding water bills are established prior to turnkeys seeking payments. Amounts collected are left solely to the discretion of the individual collectors.
- ! Collection and shut-off procedures are delayed by customers who call in and promise to make payments.
- ! Regular updates of delinquent account information is not provided to collection agency employees, preventing accurate collections or wage garnishments by the collection agency.
- ! No clear rationale was provided for determining which delinquent accounts are collected upon on any given day.
- ! Various fees are assessed for turning water on and off but no scientific basis could be provided for how those fees were established.
- ! Delinquent bill information relevant to the operations of other City departments is often denied by the commissioner without explanation.
- ! Water service is often ordered to be turned back on despite outstanding delinquencies.
- ! Water service is not always turned off after final reads.

F8.38 In addition to the internal procedural weaknesses outlined above, the turnkey section causes wasted time and effort for other sections of the department. According to the construction superintendent, a large percentage of work orders, which are generated by turnkeys and are to be completed by construction personnel, are considered invalid. According to the construction superintendent, of 92 total work orders examined throughout the first six months of 1999, 20 work orders were found to be invalid. Equipment which was reported as broken was found to be in good operating condition when a construction crew arrived to fix the reported problem. Also, curb boxes which were reportedly paved over were actually exposed. The other 72 work orders were either valid or had insufficient information on the construction field report to be determined invalid. Inaccurate reporting on work orders causes serious delays in construction projects as crews of two to seven personnel and heavy equipment report to each work site.

R8.16 The YWD should consider eliminating the turnkey section due to the operational inefficiency of the process, danger posed to employees and detrimental effects on the productivity of the construction section. Payments of delinquent accounts should be received and processed through the same process as current billings, thereby eliminating any type of field collection by YWD personnel. The YWD should consider maintaining one or two positions for turning service on and off. However, those positions could be incorporated into the meter reading section and expanded in focus to a customer service representative. Among the peer cities, customer service representatives not only turn water on or off, but will inspect customer

complaints of leaks and other service problems in the field. The YWD should consider a more comprehensive employee cross-training program to reduce difficulties between sections of the department and realize higher productivity from field personnel.

Financial Implication: Transferring two turnkey positions to the meter reading section and eliminating the supervisor and three other turnkey positions would save the YWD approximately $150,000 annually in wages and benefits. An additional one-time savings of approximately $33,000 would be realized due to the reduced need for three pick-up trucks.

F8.39 Dead accounts are those delinquent accounts for which the department does not have a valid current address and therefore cannot pursue the collection methods explained above. These accounts are forwarded to a private sector collection agency which uses information provided by the department to pursue collection. Information such as names, social security numbers and tax records can be used to locate the delinquent customer. Upon locating an individual, the collection agency uses legal processes to garnish wages, place liens on property or secure other judgements until such time payment is made. The Youngstown-based law firm of Millstone - Kannensohn serves as the collection agent for the City, pursuing delinquencies for all city departments. Regarding the YWD, processes for collections are as follows:

- The agency will send up to three letters to the debtor, informing the debtor of their delinquent status, collection efforts and offers of payment plans. These notices are in addition to those already mailed by the YWD.
- If payments are not received, the agency will initiate legal proceedings in civil or municipal court to garnish wages or place liens on property.
- A garnishment notice is sent to the debtor.
- If wage garnishment does not work, the agency can use a bank account number and file in court for a bank account garnishment. Blanket liens on property, which appear on credit reports, are also an option to collect payment.

F8.40 The collection agency indicated several problems in dealing with the water commissioner and turnkey supervisor. The collection agency indicated that the water commissioner directed them not to collect on water bills which have become delinquent since mid-1997 and they have not been given a reason for this hold on collections. The turnkey supervisor reportedly does not forward delinquent account information on a regular basis. The agency would like to receive needed information on delinquencies every month in an easy to use computer file format that could be downloaded to the collection agency's computer system. However, the YWD forwards information in hard copy format, forcing the employees of the collection agency to key enter large amounts of information.

R8.17 The YWD should consider a new communications policy regarding the pursuit of delinquent "dead" accounts. Regularly scheduled data transfers should occur between the collection agency and the MIS section of the water department on at least a monthly basis. A computer

file format should be developed through the cooperation of these two parties which would allow for a download of delinquent account information from the YWD to the collection agency's computer system. According to the MIS supervisor, this type of communication has never taken place because he has never been directed to do so. The collection agency reported that since these audit inquiries were made into the delinquent water bills, a new batch of delinquent accounts were forwarded from the YWD to the collection agency. The MIS supervisor estimated this list to contain 5,000 accounts worth approximately $1.9 million in outstanding delinquencies owed for water, sewer and sanitation charges. This estimated number of delinquencies has accumulated over approximately seven years. The collection agency was unable to confirm this amount of delinquencies owed to the City as the list they received contained some information that they already had. All of the accounts will require key entry by the collection agency. Regardless of the collection agency's ability to confirm the figures provided by the YWD, this $1.9 million would be more easily recovered if an effective working relationship existed between the collection agency and the YWD.

Financial Implication: The collection agency reported that they collect the full amount due to the YWD on approximately 70 percent of accounts turned over to them. This collection percentage is based on the assumption that they are given the correct customer name, address and other account information. Using the $1.9 million figure in **R8.17** above and deducting a 21 percent commission for the collection agency, this results in lost revenue of $1,064,000 over the last seven years, or approximately $160,000 annually including interest.

F8.41 The current adequacy of collections can be assessed by comparing customer billings to revenues actually collected against those billings. In 1998, the YWD reported $15,600,709 in charges and $15,468,613 in payments, for a reported collection rate of 99.15 percent. According to the MIS supervisor, this percentage has improved over the past several years due to the hire of additional turnkeys.

However, this percentage is somewhat skewed due to the methods by which the YWD accounts for terminated accounts and late charges. Also, the YWD applies late fees to the total payments amount, but does not break down water payments between regular water charges and late fees, inflating the reported collection percentage on billings. The MIS supervisor indicated that late fees charged to customers in 1998 totaled $214,502.

R8.18 The YWD should more clearly define their collections rate by reconciling total charges to total payments on those charges. Late fees should be segregated from the total payments amount to assess the impact of these fees on the collection percentage. Terminated accounts collection percentages should also be tracked to indicate the true amount of collections for a set of billings. Finally, the YWD should analyze the additional revenue amounts collected by adding turnkeys as opposed to the additional cost of those positions.

F8.42 The number of delinquencies incurred by the YWD can be affected by the ease with which water payments can be made. Currently, payments can be made by check or in person at city hall. The YWD will also establish auto withdrawal from a customer's checking account upon request. The YWD fiscal officer indicated that customer response to auto withdrawal has been minimal. Also, some local banks will accept utility payments but often charge the customer a transaction fee.

R8.19 The YWD should investigate lockbox and automatic processing of payments through a local bank. In addition, ease of payment options such as automatic withdrawal or Internet transfers should be investigated further and promoted by the YWD if found to be cost effective. Some potential benefits from these alternative payment options, besides cost, are improved customer service and less handling of cash at the city hall water and finance department offices. The City of Springfield is utilizing a lockbox arrangement for annual costs of approximately $60,000 plus postage for lockbox, depository and bill processing services. Using the lockbox arrangement, Springfield was able to implement a monthly billing schedule, instead of the quarterly schedule previously used, without adding additional staff. If the YWD were to enter into a lockbox agreement, the potential exists to reduce two customer service representative positions, which would negate the estimated lockbox cost.

Rate Structure

F8.43 According to section 45 of the Home Rule Charter of the City of Youngstown, the water commissioner, with the approval of the mayor, is granted the authority to establish all rules and regulations governing the water department. Furthermore, the commissioner is responsible for fixing rates and conditions for supplying water, producing billing statements and collecting charges for the provision of water.

F8.44 The City of Youngstown does not have an independent advisory body which analyzes and issues opinions on the adequacy of water rates. Therefore, the general public has no independent indication of whether the YWD is setting rates in a manner which is equitable and sufficient to support operating and capital costs. The City of Columbus has established a sewer and water advisory board. This board provides advisory services and comment on proposed water and sewer utility rates. The board consists of the auditor, director of public utilities, the director of the department of finance and six citizen representatives appointed by the mayor and approved by city council. The six citizen representatives are to represent the following customer categories; residential, low income, seniors and political subdivision customers other than the City of Columbus.

R8.20 The City of Youngstown should consider establishing an independent body to review sewer and water rates. This entity could increase public participation and provide an independent and objective view on rates charged by the YWD. The advisory services provided by such a board do not have to be limited to rates. An advisory board could also provide input on major

operational issues such as an assessment of automated meter reading systems as explained in **F8.59**.

F8.45 Rates are established in a declining scale method, meaning the customer pays less per unit of consumption as the total volume of consumption increases. A combination of base charges within consumption ranges and rates within ranges allow the department to calculate the costs of water consumption for customers. **Table 8-10** below lists current effective rates for water usage in the City of Youngstown and other municipalities in the department's service area, more commonly known as county rates.

Table 8-10: Water Rates Structure

City of Youngstown Rates	**Base**	**Rate**
First 100 cubic feet or any part thereof	$3.94	$3.94
Next 200 cubic feet or any part thereof	$6.97	$3.03
400 cubic feet to 3,300 cubic feet	$6.37	$17.97
3,400 cubic feet to 33,000 cubic feet	$60.46	$13.06
33,400 cubic feet or more	$452.52	$9.81
County Rates	**Base**	**Rate**
First 100 cubic feet or any part thereof	$5.52	$5.52
Next 200 cubic feet or any part thereof	$9.74	$4.21
400 cubic feet to 3,300 cubic feet	$8.90	$25.13
3,400 cubic feet to 33,000 cubic feet	$84.54	$18.28
33,400 cubic feet or more	$632.96	$13.70

Source: YWD fiscal officer

Charges are determined for various volumes of consumption by first determining the range of consumption. The base amount for that range is then added to the product of the effective rate multiplied by the number of 1,000 cubic foot increments of water consumed in that range. For example, a county user who consumes 500 cubic feet of water would pay a base price of $8.90 because that consumer falls in the 400 to 3,300 cubic foot range. The 100 cubic feet of water consumed above the base would be charged at $25.13 per 1,000 cubic feet, or $2.51. Therefore, the county user consuming 500 cubic feet of water would pay $11.41. Not included in **Table 8-10** is the rate structure for the City of North Jackson. This small city of approximately 150 customers pays a 100 percent surcharge on city water rates, as opposed to the 40 percent surcharge paid by other YWD customers outside city limits.

F8.46 The Ohio EPA's Office of Fiscal Administration annually produces a sewer and water rate survey of approximately 500 sewer and water systems throughout Ohio. The survey details current rates, causes for any increases which occurred in the most recent survey year and information regarding sludge disposal methods for water and wastewater treatment plants. **Table 8-11** below details annual water cost for Youngstown, (which ranks seventh in the state) the peer cities, the average of Ohio's five largest cities and statewide averages for the last ten years. Consumption levels were standardized assuming 85 gallons of water consumed per day for each member of a 3-person household. Also, rates were calculated for customers within municipal limits as opposed to those consumers outside municipal limits who frequently incur a surcharge. The assumed consumption level was 7,756 gallons per month. As indicated in the table, YWD rates are above average among the peer cities and the average of the five largest cities but below statewide averages.

Table 8-11: Water Rate Comparison

Year	Statewide	Five largest cities [1]	Youngstown	Canton	Springfield	Lorain
1997	$297	$184	$228	$132	N/A	$166
1996	$279	$182	$228	$132	$138	$166
1995	$267	$172	$228	N/A	$138	$166
1994	$253	$166	$228	$127	N/A	$128
1993	$238	$157	$132	$115	N/A	$128
1992	$225	$149	$132	$115	N/A	$128
1991	$209	$143	$132	$115	$117	$128
1990	$194	$138	$117	$115	$117	$128
1989	$187	$128	$117	$115	$117	$128
1988	$180	$122	$102	$115	$117	$128

Source: Ohio EPA Office of Fiscal Administration

Notes : [1] Average of Cleveland, Cincinnati, Columbus, Dayton and Akron rates

F8.47 The MVSD used the Ohio EPA's average usage parameters explained above to determine the division of an average monthly water bill among MVSD costs and YWD costs. Both the MVSD and YWD agreed that an average monthly water bill within municipal limits is approximately $19.61 based on 1997 rates. Of this total, $6.50 is for all MVSD operating and capital costs while $13.11 is for YWD operating and capital costs.

F8.48 In 1985, the YWD commissioned a study of water distribution and water rates by an engineering consulting firm. The study reviewed the adequacy of the existing water rate schedule to support the projected activities for the YWD for the period 1986 to 1990. The consulting firm recommended that the YWD adopt a 19 percent increase in water rates for

1986 through 1988 and an additional 14 percent for 1989 and 1990. These increases were to enable the City to meet projected operating expenses, existing debt requirements, new debt requirements for the meter installation program which was initiated in 1988, a series of major capital improvement projects and the establishment of working capital and capital replacement funds. The study also recommended immediate implementation of increases to offset additional costs incurred by the YWD due to rate increases implemented at that time by MVSD. Capital improvements recommended as part of the study focused on the enhancement of existing operations and facilities as no system expansions or increased consumption levels were projected. The most recent water rate increase prior to this study was a five percent increase implemented in 1983.

F8.49 As a result of the study, the YWD implemented water rate increases, but not as soon or to the extent recommended in the study. Rather than a 19 percent increase implemented in mid-1996, the City waited until April 1988 to implement a 15 percent increase. YWD implemented a subsequent increase of 33 percent in April 1991. This rate held until mid-1994 when the YWD made a transition to a monthly billing cycle. According to department administrators, cost increases for water service in addition to sewer and trash collection fees being added to the water bills made the quarterly financial burden too great for many residents and precipitated the switch to monthly billing. Water rate increase analysis beyond 1994 does not clearly indicate whether the City kept up with various expenses as the monthly water consumption billing increments differ from those of the quarterly system.

F8.50 The water rate study also analyzed the reasonableness of the 40 percent surcharge on water to county customers. Three methods of analysis were used to arrive at a conclusion. The first method analyzed the financial return to the City for its investments in MVSD facilities. The second analysis followed the methodology of the City's previous rate study which had established a 25 percent surcharge as a reasonable rate of return. In addition to this, an additional 15 percent for new sludge disposal facilities at MVSD were calculated and tested for reasonableness. The third analysis was a comparison of surcharges to 22 other cities in the northeastern Ohio area. At that time, all three evaluation methods indicated that the cost of water to inside and outside residents was below average costs for other cities in the area. However, when the rates charged by the 22 other cities in the area were updated for 1997 water rates, the average water bill amount was $229.56, which is approximately the same as the City of Youngstown. In addition, as **Table 8-11** shows, YWD rates are above average among the peer cities and the five largest cities in Ohio. Despite having water rates equal to the area average and higher than most large cities in Ohio, Youngstown has not properly funded capital needs through its rate structure. As a result, the pending capital improvement costs the YWD is facing could significantly increase future water rates.

R8.21 The YWD should re-evaluate the adequacy of its current rate structure. While Youngstown has the highest rates among the peer cities, the rate structure is below state averages for each of the ten years included in the analysis. Any changes to the rate structure should be based

upon a detailed capital improvements plan. See the **Capital Planning** subsection beginning with **F8.70** for more details. As indicated by previous studies, the YWD has not incorporated inflationary cost factors into their rate structures. This has resulted in large periodic jumps in rates. The YWD should consider incorporating an inflationary or cost-of-living adjustment (COLA) into its rate structure. This policy would allow customers to more easily absorb cost increases and may reduce the rate of delinquency.

F8.51 The YWD and MVSD are currently developing adjustments to the funding formula and proposals for an MVSD rate increase over the next three years. Funding formula adjustments will only effect MVSD variable costs and will more accurately reflect actual usage amounts of Youngstown and Niles. Current rate increase proposals are for 2 percent, 3.46 percent and 3.44 percent rate increases respectively from 1999 through 2001. These rate increases will accommodate MVSD operating and capital costs. Revenue from this increase will also allow MVSD to recover costs associated with the chemical treatment of water for the synura algae which caused taste and odor problems in the water for several months in 1998 and 1999.

Based upon actual 1998 YWD expenditures of $5,270,000 for water purchases (excluding capital improvement costs) from MVSD and assuming no changes in water consumption levels, the rate increases will cost the YWD approximately $105,400 in FY 1999-00, $185,998 in FY 2000-01 and $191,311 in FY 2001-02.

Technology Implementation

F8.52 All customer account information is maintained in and management reports are processed through the Customer Utility Billing System (CUBS). This COBOL based system provides certain functions and features which are summarized below:

- **!** Accountability features: separate utility revenue and receivable totals for each utility fund and aging categories and consumption history totals for each customer
- **!** Control features: audit trail details of all previous billings and financial transactions for each customer, daily balancing of receivables and financial transactions reporting and exception reporting with user defined limits for minimum or excessive consumption levels
- **!** Planning functions: rate structure analysis for revenue modeling and consumption history reports which can be compared to master meter readings by pumping zone for lost water analysis
- **!** Security features: log-in identification which can identify the last user of any specific account

F8.53 The MIS administrator uses the system's program writing capabilities to produce management reports. The most commonly produced reports and their respective purposes are as follows:

- **!** Billing statement reports are used for the printing of billing statements, details account number, address, account name, present and prior read dates, current charges, arrears and related late charges for past due water, sewer and sanitation services and a notice section for written communications to customers.
- **!** Non-billing report is based on the assumption that every active customer received a meter reading for the billing cycle in question. The report lists all customers that have not been billed for one of several reasons.
- **!** Minimum charge report is run every month and shows, within the previous 13 months, those accounts which had 3 or more minimum charges, meaning the meter has not moved. This report is used for meter inspectors to check on meters that may be malfunctioning or potential theft cases.
- **!** Multiple estimates report has the same parameters as minimum charge report but this report details accounts and addresses which have had excessive numbers of estimates instead of actual reads. This report highlights accounts with possible access issues such as locked gates, high shrubs or dog attacks on meter readers.
- **!** Monthly report summary details all charges, billings, cancellations and other information by billing cycle throughout the City and county. Consumption is also broken down by those parameters and used as general statistics for trend analysis.
- **!** Consumption analysis report details consumption by pumping zone and is used to track lost water by zone.
- **!** Payments posted report lists payments posted from the previous evening which are used by the turnkey supervisor to prevent shutting off water to a customer who made a payment the previous day.
- **!** Shut off notices report lists all customers meeting the criteria for shut off.

In addition to these reports, a microfiche file of name and address listings for each billing cycle is created as a reference document in the event that a customer challenges an address for a particular billing. The MIS administrator indicated that he can create several variations of the reports above upon request. However, he also indicated that the CUBS system's management reporting function is currently underutilized. Reports which could be developed to track and improve productivity have not been actively pursued by department administrators.

R8.22 The YWD should fully utilize the management reporting capabilities of the CUBS system. As mentioned in the **F8.15**, there is a need for work order management information to better track employee activities. This type of information can be used to identify inefficiencies and thus strategies to improve productivity. These reporting capabilities should be utilized to evaluate as many YWD functions as possible both within the city hall section and at the West Avenue site.

F8.54 Another feature of the CUBS system is bill estimation. The MIS section uses an estimating process to create a bill in the event that a reading cannot be made due to the malfunction of equipment, excessive absence of readers, prohibitive weather or lack of access to a property.

This estimate is an average of the three months of water bills from the same time period a year prior. For example, if estimating for February 1998, the CUBS estimating program would add January, February and March bills from 1997, take the average of the three and multiply by 0.95 to provide a conservative estimate. If prior year historical information is not available, previous months usage is used as a billing estimate. This estimation function is important as it allows for the generation of a monthly bill without an actual reading each month.

F8.55 Through the various reports generated by MIS, average consumption levels can be developed for city and county water usage. The MIS administrator estimates usage at about 700 cubic feet in the City (5,300 gallons) and slightly more in the county (5,500 gallons). Also, statistics are generated for usage among the various suburban communities. The City of Youngstown accounts for approximately 54 percent of accounts while Austintown is 20 percent, Boardman is 17 percent and Canfield, Liberty and North Jackson account for less than 10 percent.

F8.56 After midnight on December 31, 1999, computer systems are at risk of failings as they may confuse the year 2000 with the year 1900 on January 1, 2000. Computer systems that perform functions relying heavily on the date field are at the greatest risk. The problem stems from a two-digit year field. For dates that are normally entered in short form such as "mm/dd/yy," computer systems may not be able to distinguish between the two dates. This could result in a myriad of problems for billing dates, late charges and other date specific calculations. In order for a system to operate properly with the year 2000 date, the hardware, operating system and software applications must all be year 2000 or "Y2K" compliant. The MIS administrator has indicated that the department has already taken the measures required to deal with this issue. The department's "Y2K" compliance steps taken to date are as follows:

- The vendor from whom YWD purchased their software has already performed necessary source code programming changes.
- The MIS section created and tested simulated billing cycles using 12/1/99 as a test date and rolled over the simulated account information to January, 2000.
- Scheduling of various items, test billings, posting payments and developing work orders into 2000 have all been tested according to MIS.

In addition to the steps above, the software vendor indicated that since 1995, CUBS has used a 4-digit year field and has been completely tested for Year 2000 compliance issues. The City's Year 2000 committee leader provided memos from the City to the CUBS vendor requesting compliance guarantees and response letters from the vendor guaranteeing compliance.

C8.1 The MIS section of the YWD appears to perform well. This section has planned well for contingencies such as the "Y2K" situation, produced effective management reports and logical and easily understood billings. Informal surveys of other department administrators indicates a high level of satisfaction with MIS performance and CUBS system capabilities. While

performance within this section appears to be above average, requests for available management information throughout the department have historically been minimal, resulting in an underutilized management information resource.

F8.57 The YWD has no written city policy for access to water account information. The sole discretion for access to these accounts lies with the water commissioner. Some administrators, both within and outside of YWD, have complained about being denied access to needed account information. For example, the street department needs to know who is delinquent in their water bill, and thus trash pick-up fees, in order to have trash pick-up service terminated for non-payment.

R8.23 The City's administration should consider policies regarding access to water account information. Should it be determined that other city agencies or sections of the water department outside of city hall require account access, specific protocols should be developed to allow for this information to be provided while protecting the privacy of account information to the greatest extent possible.

F8.58 Another major computer system used by the YWD is the Aquatrol monitoring system. This system is used to monitor water levels and operate valves. The chief engineer claims that he can perform any function remotely that can be performed at the operations site via a telephone line which can be connected to his home computer or laptop. The YWD claims to have made the necessary efforts to ensure the Aquatrol system is compliant for Year 2000.

R8.24 The YWD should ensure that the Aquatrol system is compliant for the Year 2000.

Financial Implication: The Aquatrol vendor has developed a compliance plan which is estimated to cost $6,172. This cost includes the addition of two pentium PCs and related software programming changes.

F8.59 The City of Canton is in the process of implementing an automated meter reading system. Communication units installed in homes use cellular communications technology to collect readings from water meters and transmit that information to relay units throughout the City. Relay units gather readings from several homes and re-transmit the information to city hall. The compiled list of readings is transmitted to the system vendor for processing and returned to the City via satellite communication. This final transmission is formatted for processing of bills within city hall. The Canton water department's superintendent believes that this system will improve customer service and lower costs for the following reasons:

- Current meters are significantly under-registering consumption. This meter and reading system change will give the department new meters which will capture water usage that is not currently being measured.

- ! This automated system eliminates the need for meter readers, resulting in significant operational cost savings.
- ! Water usage is transmitted twice daily to record any unusually large increases in consumption. The system identifies customers with large increases in consumption. Those customers will be notified of such increases, allowing them to more quickly identify potential sources of leaking water.
- ! Access to meters will no longer be an issue. Currently, readers gain access to less than half of all properties to read meters. Therefore, estimates are common, resulting in billings which are not completely accurate.
- ! The department is negotiating with the local gas company who will read their gas meters through the same system. This will significantly reduce the cost of the system as the gas company will pay the department for this service.
- ! Plumbing in the City's houses is often in need of repair as the housing stock is old. The installation process will allow the department to identify and repair problem plumbing while installing the new meters.

R8.25 The YWD should consider automated meter reading options similar to those being implemented in Canton. The YWD will likely require another meter change out within the next decade as the current meters were installed in 1988. A long-term committee should be established to assess the various operating and capital costs associated with such systems, stay abreast of new technology in the area and develop schedules which will allow for gradual implementation of any new systems. Employee levels should also be closely monitored in this area as new technology has the potential of making the meter reader function obsolete. Based on total estimated project costs and the number of customers in Canton, the automated meter reading system costs approximately $250 per customer; including a new meter, communication unit and installation. Youngstown's meter superintendent estimated the per meter cost to be approximately the same amount. Using the $250 figure, a similar system for Youngstown would cost approximately $14.6 million.

In addition to the benefits listed above for Canton, the YWD's meter maintenance section would likely incur far fewer maintenance calls after installation of such a system. According to the meter maintenance superintendent, more than half of all maintenance calls on the current system are for loose wires between the meter and touchpad or damage to the touchpad itself. Since the automated systems in Canton are completely housed within the basement, there is a much smaller wiring distance between the meter and transmitter. In Youngstown, there is a longer wiring distance between the basement meters and touchpads attached to the outside of the house. Furthermore, touchpads are exposed to the weather, animals and vandalism. As a result of housing the transmitter in the basement, fewer maintenance calls would arise, leading to a reduced need for personnel in the meter maintenance section.

System Maintenance and Repair

F8.60 Water provided to YWD customers is pumped from the MVSD facility into lines maintained by the water department and flows to the department's 30 million gallon reservoir on the west side of the City which provides pressure to the downtown or "low" pumpage zone. Pump stations at various points along primary water lines force water into holding tanks. The gravitational force of the water in these tanks provides the pressure for the water pipes in the various service areas. In the event pressure is lost or reduced due to a line break or pump malfunction, automatic valve pits are activated as by-pass mechanisms. These valve pits are remotely operated mechanisms that connect the pressure zones, allowing more water to flow into a section of pipe in the event pressure drops in a particular zone. The chief engineer indicated that these mechanisms have only been needed once in the last 15 years. **Table 8-12** below illustrates various system characteristics for the YWD and its peers.

Table 8-12: Distribution System Characteristics

	Youngstown	Canton	Springfield	Lorain
Miles of water main	726	596	312	270
Miles of pipe/employee	6.2	7.7	10.4	5.1
Miles of water main replaced annually	0.3	2.8	1.3	1.3
Number of years to system replacement [1]	2,178	213	240	208
Number of breaks repaired annually	284	243	44	146
Water Pumped Annually (Millions of Gallons)	7,872	8,596	4,344	4,038
Water Sold Annually	5,859	5,668	3,866	3,180
Percent Unbilled [2]	26%	34%	11%	21%

Source: Various department reports and interviews with department administrators

Notes: [1] Based on the number of miles of water main and the average number of annual replacement miles over the last ten years.
[2] Unbilled water results primarily from a combination of leaks, meters which under register and unbilled public entities.

F8.61 As the table indicates, the YWD has the second highest number of employees per mile of system water main among the peers. This ratio gives some indication of the degree to which water departments of various sizes effectively utilize their staff. The miles of water main replaced annually indicates the degree to which employees, particularly in the construction area, are dedicating their efforts to maintaining a modernized water distribution system. Both of these key indicators reflect poorly on the YWD.

R8.26 The YWD should increase employee productivity, particularly in the areas of system maintenance. To this end, the City should focus on various efforts detailed throughout the **Staffing Assessment** subsection to reduce employee levels and clarify management control.

F8.62 The department maintains more than 726 miles of water lines, 8 water storage tanks, 9 pump stations, 2 remote automatic valve pits, 1 reservoir and approximately 58,000 water meters. **Table 8-11** below illustrates the age of the system. More than half of the City's water lines are at least 50 years old. Several water tanks and pump stations were constructed before 1940. The water meters are approximately 12 years old but are only covered under warranty for 20 years. The age of these systems is reported annually by the City to the Ohio Public Works Commission as a prerequisite to receiving State Issue 2 funding. See the **Department Management** subsection beginning with **F8.72** for more information on State Issue 2 funding.

Table 8-13: Age Analysis of Water System Infrastructure

Decade Constructed	Percent of Water Lines	Number of Tanks and Reservoirs	Number of Pump Stations	Number of Water Meters
1990 - 2000	4%			
1980 - 1990	3%			58,000[1]
1970 - 1980	6%		1	
1960 - 1970	22%	2	2	
1950 - 1960	10%	1	1	
1940 - 1950	10%	1	1	
1930 - 1940	28%	4	3	
1920 - 1930	17%	1	1	
Total	**100%**	**9**	**9**	**58,000**

Source: Database maintained by Chief Engineer's staff
Notes: [1] The YWD replaced all system meters in 1988.

F8.63 The pipes, tanks, pumps, meters and other equipment used in the water delivery system are tangible assets with a limited useful life. Determining the actual useful life of any of these assets depends on a wide variety of factors. For instance, the useful life of a water main depends on the materials and quality of pipe construction, soil conditions, temperature fluctuations and depth at which the pipe is buried. Pump stations can vary in useful lives depending upon maintenance programs while water towers can have their usefulness extended through regular paintings to prevent corrosion and other environmental damage. Despite the wide variety of factors involved in aging such systems and the success of maintenance programs in extending their useful lives, a point of diminishing returns is eventually reached at which time it becomes more cost effective to replace an asset than to continue maintenance and repair programs. This point can only be accurately established through a regular maintenance program, analysis of the history of repairs to assets and a decision-making model which will take into account the various cost factors of repair and replacement. The YWD

does not employ any of these tactics on a systematic basis and therefore has no objective and reliable assessment of the remaining useful life of its assets. The department relies solely on the judgement of the chief engineer for prioritization of capital projects.

R8.27 The YWD should construct a reliable assessment of the remaining useful life of its assets. Reliable maintenance records should be developed and maintained for the entire inventory of assets. Cost-benefit modeling techniques should be implemented to help management decide what point in time is the most beneficial to replace an asset. Such a course of action would allow the YWD to maximize its resources for repair and replacement of assets. Consumer's Ohio Water Company, which provides service to southern Mahoning County and surrounding areas, uses a point system analysis to determine when to repair or replace water mains. Information is gathered by recording all work order leak and break information, customer complaints and other field reports which detail the causes of water main breaks. The point system takes into account several factors which effect useful life such as age, leak history, depth, main size, carrying capacity, corrosion parameters and water pressure. Points are assigned to these various criteria. When certain point thresholds are reached for a water main, that main is added to the capital improvements plan and recommended for replacement. It will remain on the replacement list until it is actually replaced.

F8.64 The YWD's lack of regular maintenance, analysis of repairs and decision-making models is of particular concern in regards to the water lines. Necessary repairs to pump stations and holding tanks usually become obvious when problems arise. However, pipes can leak water for extended periods of time without being detected. The extent of this problem for the YWD is measured in the amount of unaccounted for or "lost" water. Lost water is the difference between the amount of water purchased from MVSD and the amount of water charged to customers. The YWD loses approximately 25 percent of the water it purchases from MVSD. The YWD considers leaks to be the primary cause of lost water.

F8.65 A ten-year analysis of main line water breaks and service leaks is summarized in **Table 8-14**. The table indicates the number of breaks for each of the service areas over the ten-year period. The analysis includes mainline water breaks and service leaks. Leaks from inside properties, clamped services on abandoned properties, cut-off services or miscellaneous repairs are not included. The service areas are ranked 1-8, as indicated in the second row of the table, to indicate which service areas have the most miles of water line (1) and which have the least (8).

Table 8-14: Ten-Year Line Break and Leak Analysis

Zone	West	South	Low	Bdmn	North	L.K	Kirk	East	Total
Year	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
1989	98	123	83	26	42	21	25	16	434
1990	65	78	59	20	29	15	14	11	291
1991	116	94	64	40	36	32	21	10	413
1992	103	98	67	32	39	16	23	12	390
1993	100	113	59	30	40	20	12	16	390
1994	103	108	48	44	33	18	6	15	375
1995	96	106	51	29	28	22	3	25	360
1996	90	112	60	28	23	12	5	15	345
1997	84	69	34	17	49	16	4	11	284
1998	73	88	50	24	18	10	3	3	269
Total	**928**	**989**	**575**	**290**	**337**	**182**	**116**	**134**	**3,551**

Source: Database maintained by the Chief Engineer's Office

A result of the analysis is that, with the exception of one year, the total number of annual line breaks has decreased from a high of 434 in 1989 to 269 in 1998. This is a decrease of 38 percent over the ten-year period. The chief engineer attributes this trend to warmer winter weather in recent years and replacement projects done on those sections of pipe most prone to leaks and breaks. While this short term trend is positive, the rate of pipe replacement for the YWD is still critically lacking. In the last 15 years, only 5 miles of pipe has been replaced in a system with 726 miles of pipe. At this rate, it will be an additional 2,178 years until all the pipes in the system are replaced. The City of Youngstown was unable to provide a total cost associated with capital needs. However, as noted in **Table 8-13**, approximately 55 percent of the water lines in Youngstown were constructed before 1950 and thereby fall within the recommended replacement guidelines. Using the most recent water line replacement projects, the average cost per foot to replace water lines in the City is estimated to be $80. Therefore, the potential future capital cost of replacing 55 percent of the water lines in Youngstown could exceed $160 million.

F8.66 Through meters at each of the pump stations and billing information maintained by the management information systems section, the department can determine in which of the system's six pumping zones water is being lost. **Table 8-15** below indicates water losses for each zone. While the "low" zone accounts for only 44 percent of total water pumped throughout the system, it also accounts for 55 percent of total water losses. This indicates

that repair or replacement of pipe in this area is needed. The chief engineer indicated that this is the oldest, most low-lying of all the zones and that leaks may be draining into the Mahoning River.

Table 8-15: 1998 Lost Water by Zone in Gallons (000s)

Zone	Pumped	Billed	Lost	% Lost By Zone	% Lost Of Total
West	2,024,737	1,813,300	211,437	10%	11%
Stewart	75,249	56,797	18,452	25%	1%
Oak	200,014	112,022	87,992	44%	5%
Evans	1,124,240	816,331	307,909	27%	16%
South	1,904,882	1,669,338	235,544	12%	12%
Low	2,348,209	1,309,356	1,038,853	44%	55%
Total	**7,234,840**	**5,212,160**	**2,022,680**	**N/A**	**100**

Source: MIS section of the water department

R8.28 The YWD should seriously consider a renewed emphasis on capital replacement and repair. System assets are not being replaced at an adequate rate. Avoiding regular replacement and repair practices results in the burdening of current customers with the expense of lost water. In addition, future customers will be forced to pay an excessive amount of capital replacement costs for a workable water delivery system. Most capital replacement guidelines within the water industry recommend that pipes be replaced every 50 to 100 years. Assuming replacement every 100 years, the YWD would have to drastically increase their rate of replacement from 0.33 miles per year to 7.26 miles per year. Using the estimated water line replacement cost of $80 per foot noted in **R.8.28**, increasing the annual water line replacement to 7.26 miles would require annual capital investment of approximately $3 million. Such an increase can only be achieved by re-directing the resources of the department and dedicating revenue to capital replacement.

F8.67 Leak detection involves measuring consumption levels in system sections to detect problem areas and surveying those problem areas with listening devices to pinpoint leaks. Measuring involves dividing the entire system into districts of about 20 water main miles, closing the system off and measuring consumption over a 24-hour period. High consumption levels at night indicate problems as water is not being used as people sleep. Also, night use as compared to total day use and types of use, (industrial/commercial or residential), is used to make assessments. Surveying involves the use of an acoustical correlator ultrasound device which detects the sound of water seeping through cracks in pipes or pipe joints. The City of Columbus reports a cost-benefit ratio of $2.50 to $3.50 in water saved for each $1.00 of cost for leak detection listening services. This means that the cost of finding and repairing leaks

is likely to be much less than the cost of allowing problems to persist. The YWD performs some leak detection with listening equipment used by engineering aides. Despite this effort, the chief engineer indicated that the source of lost water has not been detected. The chief engineer does not believe that the lost water problem is a result of large meter misreads as this issue was recently investigated by a consultant who found no major problems with the YWD's systems in this area. Cement pipes, from which leaks are difficult to detect, could also be a source of leaks. The City is considering to hire another consultant to research other potential sources of lost water.

R8.29 The YWD should dedicate additional resources to leak detection, particularly in the downtown zone which has the highest rate of lost water. According to **Table 8-15** above, the YWD already has information available which indicates where leaks are prevalent in the system. The next step should be a leak surveying process to pinpoint leaks. Municipalities across Ohio contract with engineering consulting firms for this service on a regular basis. Leak detection not only pinpoints leaks, saving water and money, but allows a continual update of the status of the system's water lines. Also, leak detection efforts can preserve the integrity of roadways as leaking water can erode the soil below pavement.

Financial Implication: A fifty percent reduction of lost water in the downtown zone would save the YWD approximately $383,000 in water purchase costs from MVSD. Assuming a cost-benefit ratio of $2.50 to $3.50 in water savings for every $1.00 invested in leak detection, the YWD would have to spend between $153,200 and $109,430 to realize this savings. The net effect would be a savings between $229,800 to $273,570.

F8.68 In addition to regular water lines, the YWD is responsible for fire lines which supply water to fire suppression sprinkler systems. In 1997, YWD processed 547 fire line accounts and collected $54,306 in revenue. Eight different sizes of fire lines serve the various customers. Charges range from $12 for a one-inch line in the City to $150 for a 12-inch line outside of the City. Accounts are billed quarterly and any non-pays are given a one-month notice to pay. If non-payment persists, water is shut off and the YWD will notify the fire department and the customer's insurance company of the turn-off.

F8.69 Fire lines are a potential source of lost water as they can be tapped and used for regular water needs. While theft of water through fire lines is not considered to be a major source of water loss by department administrators, there has not been any cross-referencing of standard and fire line accounts to search for irregularities. If a customer's property is equipped with a high capacity fire line, yet has little or no regular water usage, the department should view this situation as deserving of further investigation.

C8.2 The YWD has made some efforts to deal with lost water which are summarized as follows:

- The chief engineer hired a consultant in 1997 to verify that the City was being billed properly by MVSD. Both the consultant's report and independent verification by the chief engineer confirmed that billings were accurate.
- Pipe conditions are analyzed from pipe samples taken at new tap sites.
- A new policy is being considered to require the installation of a detector check double-check backflow preventor on all new firelines. This device would measure water usage from firelines to prevent theft.
- A consultant was hired in 1998 to review several areas of potential water loss.

The total cost of the consulting contract for 1998 is estimated at $8,500. This work focuses on connections with bulk water customers, billings to large scale water consumers, unmetered usages and billing data. The cost of this contract does not include any actual leak detection work. Rather, it is designed to provide the chief engineer with indications as to where the most serious problems may lie.

R8.30 The YWD should undertake greater efforts to reduce lost water through various measures. In addition to the leak detection and repair efforts mentioned above, the MIS department should periodically cross-check fire line accounts with standard water accounts to search for irregularities. Water billing among city departments should be metered and paid to the water department through the budget of the department using the water. Furthermore, the City should investigate the potential of measuring fire department water usage through meters installed on the newest fire trucks.

Capital Planning

F8.70 The YWD does not currently have a clearly defined capital improvements plan (CIP) to allow for long-term capital planning and forecasting. A CIP is a formal schedule of capital improvement projects, projected several years in advance, which is approved by the City council and the mayor. In addition to listing capital improvement projects, a CIP should identify revenue sources to fund those projects. The YWD has no dedicated source of revenue for capital needs. As part of the 1985 Havens and Emerson water rate study, capital replacement funds were recommended but never established. Capital replacement funds are regularly funded sources of revenue dedicated solely to repair and replacement projects. Depending upon the annual capital needs of the department, a certain percentage of revenue should be reserved for capital replacement purposes.

Capital reserves provide a safety net of funding for water operations in the event that unanticipated increases in costs or decreases in revenue have a detrimental impact on operations. Capital reserves are commonly referred to as rainy day funds as they are intended to provide a buffer for unanticipated costs.

C8.3 While the YWD lacks a formal capital improvements plan and budget as explained above, the department does have a "Contingency Maintenance Fund" which was established in 1994 and serves as the rainy day fund. Each year the department budgets $100,000 to be placed in this fund. Only unbudgeted water department expenses can be paid for with these revenues and require Youngstown Board of Control approval prior to expenditure. The current fund balance is $384,254.

R8.31 The YWD should formalize capital improvement funding requests by incorporating them into a CIP. The plan should be supported not only by replacement schedules based on maintenance, analysis and modeling, but by proformas which project all sources of revenues, operating and capital expenditures and debt retirement schedules. Furthermore, the proformas included in the CIP should be based upon current rate structures and serve as a tool to guide any future rate increases. The CIP should also be a management tool which allows city leaders and the community to easily understand how the City's financial situation will be effected by the implementation costs of any particular project. The City of Columbus maintains a formal CIP which projects anticipated capital projects for each city department for several years into the future. Their CIP is annually supplemented with a capital improvements budget (CIB) which focuses on capital improvement funding for the current year.

F8.71 The West Avenue operations unit is planning an extensive renovation, expansion and construction project for their current operations site. The current facilities are deteriorated and lack adequate space for secure operational functions and storage. The project is divided into three phases. Phase I is ready to go to bid and will cost approximately $2 million. This phase includes restoration of the original water works building which was constructed in 1902. Development of offices, conference rooms, work spaces for specific sections and parking for this 15,800 square foot building are included. Phase II is estimated to cost $900,000 and focuses on work areas behind the operations building for meter repair, hydrant repair, employee lockers, employee lounge and parking. Phase III is estimated to cost about $3 million for development of large storage areas for pipe sections, hydrants, construction barrels, gravel, fill dirt and the parking and storage of department vehicles. All three phases include cost estimates for landscaping, architectural and structural work, mechanical, plumbing and electrical services. According to the YWD fiscal officer, Phase I is projected to be paid for with cash from the water fund while Phases II and III are projected to be paid for through bond sales.

Department Management

F8.72 The YWD has not made a significant effort in recent years to perform a comprehensive self-evaluation of its operations. Within the field of water utilities, numerous management resources exist to measure performance, both within the organization and in comparison to other water departments. The primary source of information for such an assessment is the

American Water Works Association (AWWA), which maintains several resources, some of which are summarized as follows:

- The American Water Works Association Research Foundation has developed an industry-wide clearinghouse for performance benchmarking in the water industry.
- WATERSTATS is the AWWA water utility database of useful statistics.
- The QUALSERVE peer review program provides utilities with the opportunity to get an expert third party review of their organization.

While these resources were not directly incorporated into the peer city analyses within this report, the AWWA provided guidance on several issues.

R8.32 The YWD should use the resources at their disposal through their membership in the AWWA. The lack of performance indicators and absence of management information in many YWD sections indicates that this management resource could be better utilized. In particular, the QUALSERVE peer review program could provide the YWD with improved processes to address many of the issues highlighted in this report.

F8.73 The YWD's primary operating policies are detailed in the rules and regulations manual. General information on billings, service connections, fire protection, meters, rates, fire hydrants, line extensions and other issues are addressed in this manual.

C8.4 The YWD clarifies several important policy issues in the manual which is available to the general public.

R8.33 The policy manual should be updated and revised to include a detailed version for internal use and a more general, user-friendly version for YWD customers. The current manual lacks some important information for internal users such as rates and work rules. It is also too detailed for most customers who would primarily be concerned with billing and service questions.

F8.74 The YWD budget figures are derived by multiplying current year expenditures by an inflationary factor gauged to negotiated increases in employee contracts. There is no detailed support, by employee, for personnel and related employee benefit expenditures. Several departmental costs are budgeted without in-depth justification of costs. The process is largely controlled by the finance department which dictates many budget figures without the input of YWD administrators. Furthermore, large cost fluctuations from year to year could not be adequately explained.

R8.34 Managers within YWD should take a more active role in the budgeting process. Management should require a detailed justification of costs by section for each of the functional areas within the department. Furthermore, budget amounts should be closely tied to department goals and objectives which should be approved by the commissioner. Developing such ties between

funding levels and stated goals will allow the department to begin assessing progress and thereby exercise effective managerial control.

F8.75 In addition to charges for water consumption, the YWD bills customers for sewer and trash pick-up services. Revenue collected for sewer services is transferred to the sewer department. Trash pick-up revenues are transferred to the general fund because the City contracts with a private vendor for trash pick-up and pays that vendor from the general fund. The bill collection and processing costs associated with these revenues are incurred by the YWD. The YWD therefore uses a formula to divide these bill collection costs between the sewer department and the City's general fund. According to the City's finance director, these bill collection costs were paid to the YWD in 1998 for bill collection services past due from 1996 and 1997. The finance director also indicated that it is the City's intent to stay one year behind in these payments. In other words, FY 1999 billing collection costs incurred by the YWD for sewer and trash pick-up fee processing, will be repaid to the YWD in FY 2000 from the sewer fund and general fund, respectively.

Based on an average consumption amount of 7,756 gallons (1,037 cubic feet) per month as detailed in **F8.46** and **F8.47**, a city resident customer would pay $19.61 in water charges, $29.44 in sewer charges and a $6.50 trash collection fee, totaling $55.55. Only 35 percent of the total bill is dedicated to water usage. The remaining 65 percent is dedicated to trash pick-up and sewer services.

R8.35 The YWD should re-evaluate its bill collection and processing charge paid by the sewer department and general fund. The YWD should ensure that those charges reflect not only the YWD's bill collection costs, but the YWD's incremental cost of maintaining a monthly reading and billing system as opposed to a bi-monthly reading and monthly billing system. As explained in **F8.32**, the water commissioner indicated that maintaining affordable water bills is a primary reason for the monthly reading and billing cycle. If the YWD maintains such a system, the sewer and general funds should reimburse the YWD for their respective incremental costs of such a process, as it is those charges that make up the bulk of the customer's bill. As an alternative, bi-monthly readings with monthly billings could be implemented as explained in **R8.14**.

C8.5 Combining various service charges on one bill statement is an efficient practice for the City and a convenience for customers. This process also reduces administrative costs to customers by allowing both the sewer department and the City's trash hauling contractor to avoid the cost of establishing their own billing systems.

F8.76 The department began a replacement project for all customer water meters in 1988. The meter conversion was funded through a loan from the Ohio Water Development Authority (OWDA). Through the loan proceeds, the department hired sixteen workers to help with the installation. Many of these workers are now full-time employees of the YWD. The OWDA is a common

source of financing for municipal water departments in Ohio due to their expertise in debt issues and their ability to subsidize some costs through grants from the Ohio EPA.

C8.6 The YWD has maintained accurate readings by installing and maintaining high quality water meters throughout their system. Customer complaints due to meter failures are low and the department offers a free, one-time verification of meter accuracy using a flow bench device at the West Avenue site.

F8.77 The City of Youngstown receives state funding from, and must make annual reports to, the Ohio Public Works Commission as part of the State Issue 2 program. State Issue 2 was approved in 1989 and reauthorized in 1997, providing money through bond sales to political subdivisions for specific public works projects. There are 19 districts in Ohio. Some are single county districts while others incorporate as many as 10 counties. Youngstown is in District 6. Within each district, integrating committees comprised of each participating party choose projects based on need. Those committees rank and rate projects based on criteria specified by the OPWC. Administrators for the OPWC indicated that quality assessments of public utility assets, particularly water mains, are often guesswork. Youngstown has 36,000 feet of water line rated "excellent" and 2.4 million feet rated "good". The YWD has nothing rated as either "fair", "poor", or "critical". None of the lower three ratings apply despite many of the lines being installed during the 1920's. The chief engineer indicated that the previous administration told him not to actively pursue Issue 2 funding because any funding that was received would go to streets and sidewalk renovations. Therefore, the chief engineer did not spend much time on ratings.

R8.36 The YWD should re-evaluate State Issue 2 and other potential outside sources of revenue. The YWD is in a competitive environment for funding. Other city departments and other municipalities are vying for a limited amount of financial resources. The YWD should recognize this through a more aggressive effort at securing outside funding sources. Grants and low-interest loans are potentially available to the YWD through the EPA and other organizations.

F8.78 The YWD has no formal policy for writing-off uncollectible delinquent accounts. Unlike terminated, or "dead" accounts, which are forwarded to a collection agency, write-offs occur due to the purchase of a property by HUD (Housing and Urban Development) or foreclosure. The YWD maintains owner information on these properties, subjecting those owners to YWD collections procedures. However, collecting on such delinquencies is unlikely. In 1998, The YWD recorded 142 accounts written-off with a total amount due of $49,173. The YWD fiscal officer explained that the water commissioner has sole discretion in writing-off accounts. Accounts which are written-off are not deleted from data files. Rather, those records are classified as written-off and are reversible should a payment be made on the account.

R8.37 The department should clarify their delinquent write-off policy in the following manner:

- **!** Establish a written procedure for handling delinquent accounts including the establishment of dates for the various steps in the delinquent collection procedure and a check list of all collection efforts that must be pursued prior to seeking a write-off.
- **!** Require city attorney approval for all write-offs.
- **!** Require city council approval of write-off policies.

F8.79 Since 1976, the YWD has been painting its vehicles flourescent green. According to the garage foreman, this is done for safety reasons according to a federal regulatory guideline issued at that time. The vehicles are painted as they cannot be purchased through the state purchasing contract in this color.

R8.38 The YWD should consider terminating the practice of painting all vehicles flourescent green as the process is time-consuming and expensive with no particular proven safety benefit. Identifying water department vehicles could be achieved by painting the department name or adhering a water department symbol to the doors of the vehicle. Furthermore, other city departments do not paint their vehicles for this purpose.

Financial Implication: By eliminating this function, the YWD could potentially reduce garage operations by one position, saving approximately $25,000 associated with wages and benefits. In addition, the City would also realize savings associated with materials and equipment, but these savings can not be quantified.

Financial Implications Summary

The following table is a summary of potential savings, cost avoidances and implementation costs for various recommendations. Only recommendations with clear financial impacts are listed. Several other opportunities for realizing savings and improving service are detailed throughout the report.

Summary of Financial Implications for Water Department

	Recommendation	Savings or Increased Revenue	Cost Avoidance	Implementation Costs
R8.5	Streamline meter maintenance field operations	$35,500	$11,000	
R8.6	Streamline meter maintenance clerk operations	$32,900		
R8.8	Limit COLA increases to zero, one and two percent for the next three years		2000 - $130,397 2001 - $228,102 2002 - $292,528	
R8.12	Increase productivity in meter reading section	$105,000		
R8.13	Initiate meter reader carpooling		$15,600	
R8.14	Transition to bi-monthly readings	$105,000		
R8.16	Restructure turnkey function	$150,000	$33,000	
R8.17	Improve communication and collections on dead accounts	$160,000		
R8.24	Ensure Aquatrol Y2K compliance			$6,172
R8.29	Reduce low zone water loss by 50% via leak detection and repair	$229,800 to $273,570		
R8.38	Streamline garage operations by ending painting practice	$25,000		
	Total	**$886,970**	**$860,397**	**$6,172**

Not included in the table above is the significant future capital costs YWD is facing, including water line replacement, estimated to be in excess of $160 million. In addition, implementation costs of approximately $14.6 million associated with the implementation of an automated meter reading system (see **R8.25**) were not included in the summary table above, due to the long-term costs of financing such a system, the effect of new technology on these costs and the remaining useful life of the current meters, which are important factors that were beyond the scope of this audit.

Conclusion Statement

The YWD needs to develop a stronger management focus. Fundamental utility management practices in the areas of financial planning and system maintenance should be re-evaluated to direct the department towards a more stable future. Communication protocols within the department should also be analyzed to prevent inefficient practices.

The department's primary function is to serve as custodian of the distribution system. In order to do this, the YWD must continually assess its system repair and replacement needs. This is achieved through leak detection and other forms of analysis, none of which are systematically performed by the YWD. The results of such an assessment process should be reflected in the amounts charged to customers for services. Management needs to develop rate structures which provide adequate revenues for system maintenance, upgrades, planned expansions, other operating costs and contingency funds. The YWD's rate structure has never been formulated in such a manner. This lack of attention to capital planning practices has left the City with a deteriorating water distribution system far behind the peer cities in the area of water main replacement. As illustrated in **Table 8-12**, the YWD's rate of replacement for water mains translates to a system replacement cycle of more than 2,100 years. This rate of replacement is inadequate considering the useful life of a water main is typically 50 to 100 years. As a result, the City of Youngstown is facing estimated future capital cost in excess of $160 million associated with water line replacement, alone. In addition, implementing a replacement schedule where water lines are replaced every 100 years, would require an annual capital investment of approximately $3 million.

Several support functions are also in need of critical review. Turnkey functions could potentially be phased out if the department maintained more coherent and coordinated policies regarding delinquencies. Meter reading positions could be reduced through technology enhancements or a change in reading cycles. Clerk operations could be streamlined through the use of an automated telephone system.

The various deficiencies highlighted throughout this report are not caused by a lack of financial resources. The YWD maintains employee levels per capita above the peer average. Salaries and benefits are equal to or better than the peer cities. The department's overall performance is hindered by past practices which are no longer efficient. Furthermore, different viewpoints by the YWD and the City's law department regarding management authority over employees have resulted in excessive staffing levels and employees who reportedly refuse to perform duties outside their specific job classification.

An area of notable performance within the YWD is the MIS section. All billings, delinquencies, account information and management reports are administered through this section. Administrators have made efforts to ensure Year 2000 compliance and provide a wide range of management information. However, there has been little interest shown by other YWD managers to obtain the management information available to them through the CUBS system.

Considering the fundamental necessity of water and the extent of the management issues at the YWD, all options for improving service should be considered, including privatization. Furthermore, residents of all communities served by the YWD should be provided with options and input regarding their water service. Failure to address the various needs of the water system will further encumber future YWD customers with the cost of expensive repairs and lost water.

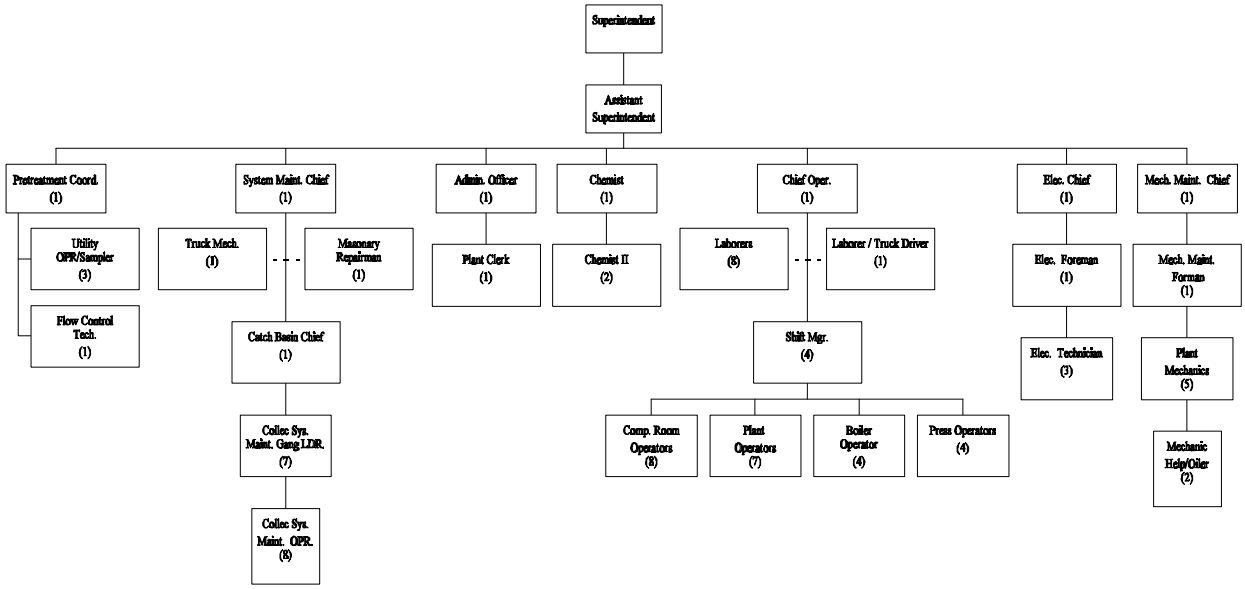
Sewer Department

Background

Organizational Chart

The Youngstown Sewer Department (YSD) employs 82 full-time employees. The chart below provides an overview of staffing.

Chart 9-1: YSD Organizational Chart



Organizational Function

The YSD is primarily responsible for the following functions:

- Maintaining the City's sewer lines, pumps and meters
- Operating pump stations throughout the system
- Operating the treatment plant facility
- Complying with Environmental Protection Agency (EPA) regulations for clean water standards and smoke stack emissions
- Monitoring industrial polluters for violations of waste water emissions laws
- Maintaining the department's fleet of vehicles and heavy equipment
- Performing various administrative and management functions

Sewer departments are traditionally organized within municipal governments as enterprise operations. The department is intended to function much like a private sector business, relying on charges for services to support the costs of operation. The YSD's charges to customers are based on a defined rate structure and water consumption. Sewer charges are collected by the water department and subsequently transferred to the sewer department. Sewer department employees maintain large scale physical facilities including 396 miles of sewer line and the waste water treatment plant. The proprietary nature of operations and the extensive physical plant creates specific managerial challenges for sewer department administrators. Among those key challenges are the following:

- Establishing proper replacement criteria for physical facilities with a limited useful life.
- Establishing fee structures which provide adequate revenues to support both regular operating costs and capital improvement replacement schedules.
- Adopting fee structures which are equitable for all customers.
- Establishing policies which maximize revenues collected for services provided.
- Ensuring compliance with pertinent regulatory requirements.

Summary of Operations

The YSD maintains approximately 396 miles of combined sanitary and storm and storm sewer lines. Sewer maintenance crews inspect, clean, and perform minor repairs and replacements of sewer mains. Eleven pump stations convey sewage through the system to the waste water treatment plant and out to the Mahoning River. The stations are monitored by plant operators who check pump stations hourly, make temperature adjustments and adjust valves. Plant maintenance personnel repair any mechanical or electrical problems at the pump stations.

Waste water is processed at the treatment plant using a series of screens, settling tanks with sludge removal equipment, chemicals and aeration systems. The treatment facility is designed to accommodate an average flow of 35 million gallons per day (mgd). However, in 1998, the actual average flow was 29 mgd. Sludge is pumped through a series of pressing belts to remove water. The sludge is then dried and incinerated. The ash from this process is transported to dumping grounds.

Treated waste water, known as effluent water, is discharged into the Mahoning River. The department is required to complete and submit monthly operating reports that indicate copper levels, dissolved oxygen, and acidity levels to the Ohio EPA. If the sewer department violates parameters set by the Ohio EPA, regulatory testing is scheduled and fines are imposed. Additionally, the EPA randomly tests waste water discharges. Effluent violations are the subject of pending litigation filed by the Ohio and U.S. EPA against the City of Youngstown.

The department also operates an industrial pretreatment program to control point source pollution from industrial customers. Two utility samplers collect industrial waste water discharge samples. The number of sample collections depends on the volume of waste water generated. The utility sampler connects an automatic sampling machine to a point of discharge into the sewer main and programs the machine by entering the number of samples to be taken, the frequency, and sample size. The machine collects a three gallon sample and reads levels of metal concentration, total solids, bio-chemical oxygen demands, oil, grease and phenols. Three chemists regularly test samples in the YSD lab.

Sewer charges are calculated based on water consumption and are incorporated into water bills. Rates are determined by city ordinance for Youngstown residents and by the respective counties for customers residing outside the City. The water department is responsible for processing all billings, pursuing delinquencies, and transferring the sewer department's respective share of collections.

Financial Data

Table 9-1 lists the YSD's actual expenditures for FY 1997, FY 1998 and budgeted FY 1999 figures for the sewer service fund (105). Not included below are expenditures from YSD's pretreatment fund. This fund derives revenues from various fees and fines assessed against companies which discharge industrial waste into the sewage system (**F9.36**).

Table 9-1: Actual and Budgeted Expenditures, FY 1997 - FY 1999

CATEGORY OF EXPENSE	FY 1997 ACTUAL	FY 1998 ACTUAL	FY 1999 BUDGETED
Personal Services	$2,924,324	$2,958,174	$3,185,050
Fringe benefits	$1,286,752	$1,256,898	$1,399,275
General Insurance	$74,447	$69,382	$75,000
Professional Services	$1,299,808	$2,195,044	$2,418,500
Purchased Services	$2,892,949	$2,453,798	$2,809,000
Materials and Supplies	$954,399	$887,443	$950,500
Capital Outlay	$279,083	$728,364	$615,000
Debt Service	$1,477,595	$1,460,598	$1,465,460
Expenditure Transfers	$481,500	$800,000	$400,000
Miscellaneous Expenses	$181,555	$198,848	$223,950
Total	**$11,852,412**	**$13,008,549**	**$13,541,735**

Source: Youngstown finance department 1999 budget report

The following provides a description of unique expenditures noted in **Table 9-1**.

- **!** Expenditure Transfers - budgeted transfers from the general sewer maintenance fund to the operations and maintenance fund initially established through the EPA grant.
- **!** Miscellaneous Expenses - mileage, travel, advertising and printing, rent, maintenance, office supplies, postage, land and settlements.

Detailed below are explanations provided by the finance director and YSD administrative staff for significant variances in actual expenditures from FY 1997 to 1998.

- **!** The 69 percent increase in professional services for FY 1998 and subsequent 10 percent increase in FY 1999 budget appropriations reflects the professional consulting fees paid to

the Mosure and Syrakis engineering firm for conducting a combined sewer analysis mandated by the Ohio EPA. The City was in violation of EPA standards for overflow discharge of raw sewage into the Mahoning River. In 1999, the City also retained Montgomery and Watson to perform a sewer rate analysis which is scheduled to be completed in August 1999.

- The 160 percent increase in capital outlay expenditures was due in part to expenditures for repair services, building and infrastructure. In FY 1997, the City incurred a major sewer break which cost approximately $163,000 to repair. Additionally, Ram Engineering Company was paid approximately $171,000 for repairs made to an incinerator. A portion of these expenditures was encumbered in both FY 1997 and 1998.

- The 66 percent increase in expenditure transfers for FY 1998 resulted from the fact that no transfers were made from the general sewer maintenance fund to the operations and maintenance fund in FY 1995. To adjust, the City doubled the amount transferred for FY 1998.

Key Operating Statistics

Table 9-2 details various 1998 operational data for the YSD and the peer cities.

Table 9-2: 1998 Operational Statistics and Ratio Comparisons

	Youngstown	Canton	Lorain	Springfield
Total number of full-time employees	82	51.4	50	53
Miles of sanitary, storm or combined sewer line[1]	Storm = 69 Combined = 328 397	Sanitary = 346 Storm = 203 549	Sanitary = 280 Storm = 169 449	Sanitary = 163 Storm = 45 Combined = 71 279
Number of residential and commercial customers/accounts[2]	30,402	28,740	22,729	22,374[3]
Gallons of waste water treated annually (000s)	10,682,500	9,439,680	5,892,050	5,733,000
Gross customer billings	$10,997,177	$8,432,032	$6,024,339	$7,314,263
Number of waste water treatment facilities	1	1	2	2
Design flow in million gallons per day (mgd)	35 mgd	33 mgd	15 mgd/5.5 mgd	25 mgd/.06 mgd
Peak wet weather flow in million gallons per day (mgd)	90 mgd	47 mgd	40.1 mgd/10 mgd	33 mgd/.18 mgd
Average flow in million gallons per day (mgd)	29 mgd	26 mgd	13.8 mgd/2.4 mgd	15.7 mgd/.03 mgd
Percent of design capacity used	83%	79%	92%/44%	63%/50%
Annual cost per million gallons of waste water treated	$1,030	$893	$1,022	$1,275
Sludge or by-product disposal	Incinerate	Incinerate	Land application	Land application
Overtime incurred	$287,739	$158,198	$113,438	$36,421

Source: Various reports submitted by YSD and the peer cities.

[1] Miles of sewer lines includes only those maintained by YSD within the City limits.

[2] Includes only customers within City limits for consistency among peer cities.

[3] Springfield's residential, commercial, and industrial customers were estimated based on 1996 data.

Major similarities and differences among the peer city operations include the following:

- Each plant maintains continuous operation 24 hours a day, 7 days a week.
- Youngstown and Canton incinerate waste and transport ash to landfills. Lorain transports sludge for land applications. Springfield incinerates a small portion of its waste and transports the remaining sludge for land application.
- Approximately 75 percent of Youngstown's sewer lines are combined sanitary and storm. Approximately 13 percent of Lorain's sewer lines are combined. Canton and Springfield have entirely segregated sanitary and storm sewer lines.
- Youngstown and Springfield offer overtime to all sewer department employees. Canton allows unionized employees to work overtime and permits compensatory time for management. Lorain allows only unionized employees to work overtime.

- Youngstown faces significant problems with its collection system, including infiltration, untreated discharges and overflows, and unsewered areas.
- Youngstown's waste water treatment plant is somewhat unique in that sewage must be pumped uphill for a portion of the treatment process.

Performance Measures

The following performance measures were used to assess sewer department operations.

- Assessment of staffing levels and operational effectiveness within each section
- Assessment of contractual benefits and employee qualifications
- Sewer rate analysis
- Adequacy of technology usage and year 2000 compliance
- Adequacy of system maintenance and repair
- Adequacy of capital improvement planning techniques
- Effective administrative management

Findings / Commendations / Recommendations

Staffing Assessment

F9.1 **Table 9-3** below lists the staffing levels for each function and the corresponding staffing levels for the peer cities.

Table 9-3 Peer City Staffing Level Comparison

Staffing (FTEs)	Youngstown	Canton[1]	Lorain	Springfield	Peer Avg.
Administration	4.0	4.0	5.0[2]	4.0[3]	4.3
Laboratory / Pretreatment	8.0	6.0	4.4	6.0	5.5
Sewer Maintenance	19.0	10.4	12.0	22.0	14.8
Plant Operations	28.0	15.0	15.6	8.8	13.1
Plant Maintenance	14.0	10.0	9.0	10.0	9.7
Laborers	9.0	6.0	4.0	2.2	4.1
Total	**82.0**	**51.4**	**50.0**	**53.0**	**51.5**

Source: YSD and peer district organizational charts.

[1] Canton's street department performs sewer maintenance functions. Sewer maintenance FTE's were calculated based on seven street department administrative staff, including the superintendent, spending approximately 20% of their time on sewer maintenance.

[2] Lorain has three superintendents, one at each of its two waste water treatment plants and one at its sewer maintenance division.

[3] Springfield has two superintendents, one for waste water treatment and the other for sewer maintenance.

F9.2 The YSD has 30.5 employees above the peer average. While almost every division within YSD has the highest staffing levels among the peers, plant operations and maintenance appear to be the primary sources of the difference. Some operational characteristics of the YSD, such as the number of customers served and the volume of waste water treated, justify higher staffing levels in some areas. However based on an analysis of work processes, recommendations are made to reduce staff in certain categories.

F9.3 The YSD is currently in litigation with the federal and state EPA for having over 100 combined sewer overflows and having seven areas where untreated sewage is being discharged into the Mahoning river. Additionally, the sewer system has infiltration and inflow problems. Interviews with the Ohio Attorney General's Office, the Ohio EPA, and the Youngstown law department indicated that the litigation is currently pending the outcome of a systems characterization study which will provide a detailed report on the complexity of plant operations, the sophistication of its system and equipment, and a profile of the current condition of its sewer system. The characterization study is scheduled to be completed by July 2000. Final resolution of the pending litigation may have an impact on the staffing implications identified in this audit.

Table 9-4 shows staffing levels, by operational area, with adjustments for the number of customers served. Peer averages for staff per 10,000 customers are calculated both with and without YSD to reflect the fact that YSD's high staffing level tends to skew the result. This high level analysis shows that YSD may be overstaffed by 13 to 17 positions compared to the peer cities. A more detailed analysis is presented in the findings and tables which follow.

Table 9-4: Comparison of Staff per 10,000 Customers

Position	YSD	Canton	Lorain	Springfield
Administration	1.31	1.39	2.20	1.79
Laboratory/Pretreatment	2.63	2.09	1.94	2.68
Sewer Maintenance	6.25	3.67	5.29	9.82
Plant Operations	9.21	5.23	6.87	3.93
Plant Maintenance	4.61	3.49	3.96	4.46
Laborers	2.96	2.09	1.76	0.98
Total	**26.97**	**17.91**	**22.02**	**23.66**
Peer average with YSD	**22.64**			
Difference from peer avg.	**4.43**			
Peer average without YSD	**21.19**			
Difference from peer avg.	**5.78**			

Source: YSD and peer cities.

F9.4 In order to perform a more in-depth analysis of staffing levels, the following tables were developed to compare YSD and peer city operations based on common operating characteristics unique to each staffing category. **Table 9-5** is a comparison of administrative staff to the total number of staff.

Administrative staff includes superintendents, assistant superintendents, an administrative officer and secretaries. Superintendents and assistant superintendents handle the general plant and sewer operations; the administrative officer is responsible for processing and maintaining payroll records and other personnel matters; and secretaries are generally responsible for processing purchase orders, answering telephone calls, entering data and other related duties.

Table 9-5: Comparison of General Operational Staff to Administrative Staff

	Number of Administrators	Total Number of Staff	Ratio of Staff to Administrators	Difference from Peer Average
Youngstown	4	82	20.5	6.8
Canton	4	51.4	12.9	(0.8)
Lorain	5	50	10.0	3.7
Springfield	4	53	13.3	0.4
Peer Avg.	4.3	59.1	13.7	

Source: Operational information provided by the YSD and peer cities.

The ratio of general operating staff to administrative staff in YSD is higher than in the peer cities, indicating a relatively low number of administrators. YSD's administrative staffing level, including one superintendent, one assistant superintendent, one administrative officer and one secretary, appears appropriate for handling the day-to-day administrative requirements in the department.

Each city's administrative staff consists of a different mix of personnel. Canton has one superintendent, one assistant superintendent, and two administrative clerks. The City does not have any specific employees dedicated to sewer maintenance, but its street department performs sewer maintenance work. Canton's street department superintendent, along with other administrative positions, is included in the above analysis (**Table 9-3, footnote 1).** Lorain has one superintendent for each of the two waste water treatment facilities and one superintendent for its sewer maintenance division. In addition, Lorain has one assistant superintendent who divides his duties between the two plants and one secretary at the larger of the two plants. Springfield has a sewer maintenance superintendent, a waste water treatment plant superintendent, and two secretaries, one for each division.

F9.5 **Table 9-6** is a comparison of laboratory and pretreatment staff per billion gallons of waste water treated. Laboratory staff include chemists and laboratory assistants. Pretreatment staff includes all personnel performing pretreatment functions such as scheduling collection of testing samples and assuring compliance with EPA standards and collecting industrial sewage samples.

Laboratory staff (chemists) are responsible for quality control testing of final effluent waste water, monitoring and testing waste water processed through the plant, and analyzing pretreatment collection samples. The pretreatment staff is responsible for collecting industrial and residential sewage samples from the sewer system.

Table 9-6: Comparison of Laboratory / Pretreatment Staff per Billion Gallons of Waste Water Treated Annually

	Number of Laboratory/ Pretreatment Staff	Billion Gallons of Waste Water Treated Annually	Ratio of Staff per Billion Gallons of Waste Water Treated	Difference from Peer Average
Youngstown	8	10.68	0.75	(0.02)
Canton	6	9.44	0.64	(0.13)
Lorain	4.4	5.89	0.75	(0.02)
Springfield	6	5.73	1.05	0.28
Peer Average	6.1	7.94	0.77	

Source: Operational information provided by the YSD and peer cities.

The YSD has .75 pretreatment staff per billion gallons of waste water treated annually. This staffing level is equal to Lorain and second lowest to Canton which has .64 pretreatment employees per billion gallons of waste water treated annually.

F9.6 In the YSD, one of the three chemist serves as a laboratory manager, completing EPA monthly operating reports, ordering supplies, and ensuring quality control of testing. The other two chemists perform inorganic testing for acidity levels, ammonia and nitrates concentrate, and metal contents of waste water. The YSD pretreatment staff consists of one pretreatment coordinator, one flow control technician, and three utility samplers. The pretreatment coordinator is responsible for the overall management of the Sewage Discharge and Industrial Pretreatment (SDIP) program and sample collection coordination for 23 Ohio EPA permitted industries including Northside Medical Center, North Star Steel of Ohio, and General Extrusion, all of which discharge waste into Youngstown sewer lines. The flow control technician and one utility operator/sampler monitor and perform maintenance on pump stations that are not on the facility grounds, while the other two utility operators/samplers perform sample collections for the 23 industrial customers and for City sewer lines.

Canton has one chief chemist and two lab technicians that perform laboratory analysis of sewage discharge. There is one industrial waste chief who essentially performs the same function as YSD pretreatment program coordinator. However, while YSD has one flow control technician and three utility operators/samplers who perform regular checks on 11 pump stations and collect sewer discharge samples from City sewer lines and 23 industrial customers, Canton only has two inspectors which perform sample collections and inspections on City sewer discharge as well as the 41 industrial customers in the Canton area. Based on

this analysis, YSD's pretreatment operation is staffed at a level comparable to the peer cities and no reduction is recommended..

F9.7 **Table 9-7** is a comparison of plant staff per billion gallons of waste water treated annually. Plant staff includes plant operations, plant maintenance and laborers. Although laboratory and pretreatment staff are compared using the same operational data, they were excluded from this analysis because they are not involved in the operations of the plant but serve as a function of quality control.

The overall responsibility of plant operations is to monitor influent and effluent sewage flow, oversee the waste water treatment operation, and process by-products for land application or incineration and disposal. The YSD plant maintenance personnel are responsible for the electrical and mechanical operations of all plant functions.

Table 9-7: Comparison of Plant Staff per Billion Gallons of Waste Water Treated

	Number of Staff	Billion Gallons of Waste Water Treated	Ratio of Staff per Billion Gallons of Waste Water Treated	Difference from Peer Average
YSD	51	10.68	4.78	0.64
Canton	31	9.44	3.28	(0.86)
Lorain	28.6	5.89	4.86	0.72
Springfield	21	5.73	3.66	(0.48)
Peer Average	32.9	7.94	4.14	

Source: Operational information provided by the YSD and peer cities.

The YSD employs 4.78 plant staff per billion gallons of waste water treated annually, the second highest among the peer cities. Among the peer cities, Canton has the lowest number of employees (3.28) per million gallons of waste water treated. The YSD staffing level is approximately seven employees above the peer average.

F9.8 The YSD plant operations staff is responsible for monitoring influent and effluent sewage flow, overseeing the primary, secondary and tertiary treatment process of waste water, and incinerating waste water bi-products or sludge. There is one chief operator, four shift managers, eight computer operators, seven plant operators, four boiler operators, and one truck driver/laborer. Plant operations functions 24 hours a day, 7 days a week, and incinerates sludge 24 hours a day, 5 days a week. The chief operator works the day shift Monday through Friday and is responsible for overseeing the entire operation. There are four crews, of which three are staffed with one shift manager, two computer operators, and two

plant operators. The fourth crew is staffed with one less plant operator. There are four press operators and four boiler operators who operate the incinerator.

Based on further analysis of work processes and interviews with YSD sewer officials, the YSD plant operations staff could potentially be reduced by three positions. According to sewer officials, the four crews rotate during the month to cover three shifts, seven days a week. In addition, days off are rotated within each crew so that individuals work only five days per week. As a result, crew sizes for each shift currently vary between four and six persons. If the plant operations staff was reduced by three positions, it would still be possible to staff every shift with four individuals. See **R9.1** for additional information related to staff reductions.

F9.9 YSD plant operation is most similar to Canton when considering average daily flow of sewage and incineration of by-products (**Table 9-2)**. Canton's plant operations processes sewage and incinerates waste 24 hours a day, 7 days a week, while YSD processes sewage 24 hours a day, 7 days a week, but only incinerates waste 24 hours a day, 5 days a week. Canton's plant operation is staffed with one shift manager and two plant operators. According to Canton's superintendent, there is lots of overtime in this department but it is not cost beneficial to hire an additional employee. YSD plant operations has one shift manager, two computer operators, two plant operators, and two boiler operators. Canton's shift supervisor mans the computer room and performs several other supervisory duties. YSD's shift manager performs administrative duties and oversees plant operation functions, while one computer operator remains stationary in the computer room.

F9.10 The YSD computer room operators' primary function is to monitor the computer control board for equipment failure in the plant and answer incoming phone calls, while remaining in the computer room at all times. The shift manager is responsible for prioritizing, assigning and supervising the work of plant operators, and checking problem areas in the plant. By restructuring the duties and responsibilities of the shift managers, plant operators and computer room operators, YSD could potentially eliminate the stationary position in the computer room and reduce its staff by three additional positions. YSD's staffing structure is most similar to that in Canton; however, Canton utilizes a control board alarm and does not assign a stationary person in the computer room. See **R9.1** and the accompanying financial implication for further discussion.

F9.11 The YSD plant maintenance staff consists of one electrical chief, one mechanical chief, one electrical foreman, one mechanical foreman, three electrical technicians, five plant mechanics, and two mechanic helpers. The electrical maintenance staff normally works in pairs and is primarily responsible for performing scheduled repairs and replacing electrical equipment parts, designing specialized electrical stations for plant operation, and maintaining and cleaning all electrical equipment and tools. The mechanical maintenance staff also works in

crews of two and is responsible for repairing and replacing mechanical equipment and installing and maintaining machinery, buildings and related appurtenances of plant operations and pump stations.

F9.12 If the YSD reviewed its plant maintenance job descriptions for overlapping duties and considered the specialized experience and training required for these positions, it could potentially eliminate one to two positions. Among the peer cities, the YSD is the only department that has two chiefs and two foremen in plant maintenance. Canton, Lorain, and Springfield each have only one maintenance supervisor who oversees the electrical and mechanical technicians and no foremen. All cities indicated that there is no specialized license required for a plant maintenance chief; however, all cities did require a waste water operator classification certificate (based on plant process) and generalized knowledge and/or experience in mechanical and electrical operations. After separate interviews with both the mechanical and electrical chiefs, there appeared to be no clear distinction in responsibilities between the positions. Both chiefs are responsible for tracking maintenance work performed, scheduling work assignments, and overseeing the mechanical and electrical work projects. Additionally, according to the assistant superintendent, the mechanical maintenance chief only oversees the mechanical operation of pump station at the plant while the assistant superintendent oversees the mechanical operation of pump stations not located at the plant. There also appeared to be some overlap in the responsibilities of the chiefs and the foremen. After observing the functions of the foremen, they appeared to serve as working foremen, providing hands-on assistance to the mechanics and technicians. A review of the job descriptions for maintenance chiefs and maintenance foremen revealed an apparent overlap in duties between these two management positions. Provided that one of the maintenance chiefs had demonstrated knowledge of both mechanical and electrical operations, the YSD could consolidate to a single chief. Furthermore, there are two foreman who, according to the job descriptions, have specialized knowledge and/or training in either mechanical and electrical repair and could supplement the expertise of the remaining chief.

Alternatively, when considering overlapping duties between the chiefs and the foremen, the YSD could potentially retain both chiefs and eliminate the foreman positions. While potential staff reductions are indicated by this analysis, the YSD should carefully assess the level of sophistication of its plant maintenance operations and critically review overlapping job duties when determining a more efficient staffing structure. See **R9.1** for a summary of potential staff reductions and an accompanying financial implication.

F9.13 **Table 9-8** is a comparison of sewer maintenance staff per hundred miles of sewer line maintained. Sewer maintenance is handled by different departments for some of the peer cities. Canton's Street department performs sewer maintenance functions. Canton's FTE staffing was calculated based on 20 percent of the superintendents and other administrators time being devoted to sewer maintenance. Lorain and Springfield have one superintendent

for their sewer maintenance division; however, they are not included in this analysis because they are included in the administrative staff comparison. Sewer maintenance staff includes all staff who clean, repair and maintain sanitary and storm sewer lines and mechanics who perform mechanic repairs on equipment related to sewer maintenance.

Table 9-8: Comparison of Sewer Maintenance Staff per Hundred Miles of Sewer Line Maintained

	Number of Staff	Hundred Miles of Sewer Line Maintained	Staff per Hundred Miles of Sewer Line Maintained	Difference from Peer Average
YSD	19	3.97	4.79	1.00
Canton	10.4	5.49	1.89	(1.90)
Lorain	12	4.49	2.67	(1.12)
Springfield	22	2.79	7.89	4.10
Peer Average	15.85	4.19	3.79	

Source: Operational information provided by the YSD and peer cities.

The YSD employs 4.79 sewer maintenance staff per hundred miles of sewer line maintained, the second highest among the peer cities. The YSD has approximately 1.00 employees per hundred miles of sewer line maintained above the peer average which is 3.79.

F9.14 The YSD sewer maintenance division is responsible for maintaining all sewer lines within the City limits. Its functions include performing routine checks on trouble spots, cleaning and repairing catch basins, and "dragging" (cleaning) or hydro-flushing and repairing sewer lines. According to the City of Youngstown 1998 Capital Improvement Report submitted to the Ohio Public Works Commission, the YSD maintains 397 miles of sewer mains of which approximately 75 percent are combined sanitary and storm sewer mains. According to the YSD assistant superintendent, because sanitary and storm sewer lines are combined, the inherent increase in sewage flow often causes blockages, repair problems, and sewage discharges that violate toxic level standards established by the EPA (**F9.3**). In addition, most of the City's sewer lines are more than 90 years old and are made of clay. Clay sewer lines are more susceptible to blockage caused by tree roots and to breakage when cleaning. The assistant superintendent also indicated that the sewer maintenance crews need additional and specialized equipment for cleaning these sewer lines.

The number of sewer maintenance staff (19) is second highest to Springfield (22). According to the assistant superintendent, the YSD may maintain fewer miles of sewer line per employee than its peers because more are combined sanitary and storm lines, because of their age, and because they require more specialized equipment. Canton has 10.4 FTE's maintaining 346

miles of sanitary sewer lines and 203 miles of storm lines. Lorain has 12 employees maintaining approximately 280 miles of sanitary sewer lines and 169 miles of storm lines. Springfield has 22 employees maintaining approximately 163 miles of sanitary, 45 miles of storm, and 71 miles of combined sanitary and storm sewer lines. If YSD reduced its sewer maintenance staff to the peer average, it could potentially eliminate up to four positions. See **R9.1** for a summary of potential staff reductions and an accompanying financial implication.

F9.15 The YSD employs one truck mechanic in its sewer maintenance division who works on 30 vehicles and 9 pieces of equipment. In addition, the mechanic performs most of the maintenance on lawn mowers and trucks. Key tasks include performing oil changes, repairing tandem brakes, and replacing pumps and hoses. Repairs on tires are done by both the waste water and street department mechanics. Major repairs in excess of $10,000 are bid out. Refer to the **Street Department** section of this report for more information regarding a recommendation for a City-wide motor pool as a means of streamlining auto maintenance operations and vehicle use.

R9.1 The Youngstown Sewer Department faces significant challenges as it addresses short-term corrections and long-term improvements and upgrades to its waste water system. The scope of these issues is defined in the EPA lawsuit currently being litigated in Federal Court. Eventually, the decision reached in that suit will determine the appropriate staffing level for the department. In the interim, however, YSD needs to implement procedures to improve overall sewer operations in anticipation of the EPA lawsuit resolution. It does not appear that the current make-up and number of YSD employees is effective. Based upon findings **F9.1** to **F9.15**, and through the enhanced use of technology, more effective management oversight, and renegotiation of certain restrictive contractual issues, YSD should review its staffing levels for possible reductions and/or reassignments.

As indicated by the assessments in this performance audit, staffing in the administrative and laboratory/pretreatment areas appear appropriate for current operations compared to the peer cities. Current shift scheduling inefficiencies in plant operations, if corrected, could result in a reduction of up to three positions. By restructuring the duties and responsibilities of the shift managers, plant operators and computer room operators, three additional positions could potentially be reduced. Eliminating duplication of duties and responsibilities between the chiefs and foremen in plant maintenance could result in the reduction of one to two positions. Finally, a comparison of the ratio of sewer maintenance staff per hundred miles of sewer line maintained in the peer cities suggests that YSD could reduce by up to four positions.

YSD should review these staffing assessments in conjunction with the urgent needs identified by the EPA to determine the proper mix of position reductions and reassignments which would allow the City to demonstrate its commitment to full compliance with all pertinent sewer regulations.

Financial Implication: If the YSD could reduce its staffing level by 10 to 12 positions or redirect these resources into areas of focus in the EPA lawsuit, it would recognize a cost savings/avoidances of approximately $324,470 to $389,364 in salaries and approximately $113,564 to $136,277 in benefits, for a total savings/avoidance of $438,034 to $525,641. The salary and benefit cost savings/avoidances were calculated based on the weighted average salaries illustrated in **Table 9-9.**

Labor Agreement

F9.16 Union employee compensation is determined by the bargaining agreement between the City of Youngstown and United Steelworkers of America (USA), Local 2163. Of the 82 positions in the YSD, 66 are represented by the union. All employees who are not considered management must either join the union or pay a fair share fee. Refer to the **Employee Related Issues** section of this audit for more information regarding contract and benefit administration issues.

F9.17 An assessment of salary levels for YSD employees was established through comparisons with the peer cities. The following table shows the weighted average base salaries for YSD and peer city employees for FY 1998.

Table 9-9: 1998 Peer City Base Salary Comparison

Position	YSD	Canton	Lorain	Springfield	Peer Average
Administration	$40,975	$39,462	$46,640	$39,069	$41,724
Laboratory / Pretreatment	$36,480	$30,151	$39,715	$37,753	$35,873
Sewer Maintenance	$30,720	$27,770	$33,422	$28,827	$30,006
Plant Operations	$33,443	$29,701	$37,247	$32,578	$33,175
Plant Maintenance	$34,011	$30,819	$35,930	$32,215	$32,988
Laborers	$23,189	$24,794	$29,032	$27,955	$27,260
Total Weighted Average	$32,447	$29,767	$36,591	$32,151	$32,617
Difference from Peer Average	($170)	($2,850)	$3,974	($466)	

Source: YSD payroll office and peer district.
Note: The salaries do not include overtime

The weighted average salary for YSD employees is $32,447, which is $170 less than the peer districts' total weighted average. The YSD weighted average salary is second highest to Lorain and is approximately 8 percent higher than Canton's weighted average and 1 percent

higher than Springfield's weighted average. Overall, the YSD salaries appear comparable to the peer cities.

F9.18 The finance committee of City council determines management's compensation which must then be approved by City council and the board of control. **Table 9-10** illustrates the wage settlements for union and management employees for FY 1996 through FY 2001.

Table 9-10: Compensation Comparison of Local 2163 Employees and YSD Management

	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
USA Local 2163 employees	3.5% pay increase	3.5% pay increase	3.5% pay increase	4% pay increase	4% pay increase	4% pay increase
Management	no pay raise	4.25% pick-up for PERS (only for the last 6 months)	3.5% pay increase	4% pay increase and a cash bonus of $1,800	4.25% pick-up for PERS	4% pay increase

Source: USA Local 213 agreements, City ordinance and YSD interviews.

USA Local 2163 employees have received consecutive pay increases at a rate of 3.5 percent for FY 1996 through 1998 and, according to the recently approved labor union agreement, will receive consecutive 4 percent pay increases over the next three fiscal years. However, YSD management employees received no pay increase in 1996, a 4.25 percent contribution by the City of Youngstown to the Public Employee Retirement System (PERS) for the last six months of FY 1997, and a 3.5 percent pay increase in FY 1998. In FY 1999, management employees received a 4 percent increase and $1,800 which, according to the administrative officer, was to make up for not receiving the 4.25 percent contribution for the first six months in FY 1997. In FY 2000, the City of Youngstown will pay the additional 4.25 percent for managers' contributions to PERS. In FY 2001, management will receive a 4 percent pay increase. The City's pick-up of management employees' share of PERS contributions does not increase their base salary. However, net pay for the affected employees increases by an amount equal to the pick-up amount.

F9.19 An analysis of the YSD employee salary schedule indicated that in FY 1999, two employees' hourly rate exceeded that of their supervisors. That analysis also indicated that in FY 2000 and 2001, nine bargaining unit employees will earn higher hourly rates than their supervisors. YSD management employees contend that despite the PERS contribution and other health benefits, the final average salary used by PERS in calculating retirement benefits will be less for management than union because of the hourly rate differential. Additionally, the inequity in the hourly rate and overall compensation package between management and union creates a disincentive for managers to effectively manage union employees which in turn creates a disincentive for union employees to become more efficient.

R9.2 The City should review the overall compensation structure for union and management employees to ensure that it appropriately reflects job duties and responsibilities. When determining pay increases for either union or management employees, the City should consider the total compensation package, including health benefits and retirement contribution. This process should support fair compensation packages that distinguish between labor and management responsibilities.

F9.20 YSD officials indicated that most overtime is initiated through call-outs after regular work hours. According to sewer maintenance 1998 monthly overtime reports, the YSD averaged 15 call outs per month, or approximately 180 call-outs per year. Employees who are members of the union receive a minimum of four hours of pay regardless of time worked when called out to visit a site, at a rate of one and one half times regular pay (premium rate). Sewer officials stated that when maintenance employees are called in to work, the jobs frequently do not require four hours. In addition, there are two employees on call at any given time. The YSD does not have a formal system in place that tracks the length of time required to complete routine work or standards which define how many employees are required to complete routine work assignments.

Financial Implication: See the **Employee Related Issues (sub- section A, Contractual Issues)** for a recommendation and financial implication concerning a reduction in the number of hours paid for call-outs.

F9.21 Department officials indicated suspicion that some of the call-outs in sewer maintenance may have been contrived to increase overtime. After reviewing overtime records, certain employees appeared to incur large amounts of overtime. The YSD does not have a formal policy for verifying call-outs. When a call or complaint is received after the normal working day, the operator does not verify any information or ask for contact information from the caller. This practice allows for the potential of fictitious calls for service and results in sewer employees incurring four hours of overtime for work that often takes less time to complete.

R9.3 The YSD should develop and implement a formal policy for verifying the need for emergency call outs. The policy should require that callers provide a name, address and phone number. When the complaint is filed, the on-call supervisor should call the person who registered the complaint and verify the information provided. This information would better assist the on-call supervisor in his assessment of the complaint and help to determine the number of employees needed to perform the work. In addition, such a policy could help to prevent potential employee abuse of overtime by discouraging phony service calls.

F9.22 In addition to overtime pay, employees who are on call receive a quarterly lump sum payment of $80.33 for every week on-call. Every week, two employees are scheduled to be on-call during the evening. They are paid on-call pay even when they are not called out to work. This is in conformance with the Fair Labor Standards Act (FLSA) and absolves both the

union and the City of any FLSA liability. However, this provision is not reflected in other City bargaining units or in the majority of the peer city agreements. See the **Employee Related Issues (sub-section A, Contractual Issues**) for a recommendation to discontinue this provision and a related financial impact.

F9.23 According to the labor union agreement, employees are paid overtime for time worked in excess of 40 hours a week or for hours worked in excess of eight hours a day. Overtime hours are tracked and recorded by managers and submitted to the superintendent on a monthly basis. **Table 9-11** compares YSD overtime expenditures to the peer cities for FY 1998.

Table 9-11: FY 1998 Employee Overtime Expenditures by City

Cities	Eligible FTE's	Overtime Expenditure	Average Salary	Amount of Overtime per FTE	Overtime as a Percent of Average Salary
Youngstown	82	$287,739	$32,447	$3,509	10.81%
Canton	45	$158,198[1]	$29,823	$3,516	11.79%
Lorain	42	$113,438	$36,234	$2,701	7.45%
Springfield	52	$36,421	$31,510	$700	2.22%
Peer Average	55.25	$148,949	$32,504	$2,607	7.84%

Source: YSD expenditure report and peer city telephone conversations.
Note: Youngstown offers all employees overtime. Canton and Lorain only allow union employees overtime. Springfield offers overtime or compensatory time for union and non-union employees.
[1] Canton overtime expenditures do not include overtime incurred by sewer maintenance workers who are part of the street department.

Compared to the peer cities, YSD has the highest overtime expenditures and the second highest amount of overtime per FTE. The overtime expenditures for the peer cities include sewer maintenance and waste water treatment plants. YSD overtime expenditures exceed the peer city overtime average by $138,790 or 93 percent. See the **Employee Related Issue (sub-section A, Contractual Issues)** section for a comparison of overtime expenditures by departments within the City of Youngstown.

R9.4 YSD should take steps to reduce its overtime expenditures for non-management employees by 20 to 25 percent to be more comparable to the peer cities.

Financial Implication: Reduction of overtime expenditures by 20 to 25 percent would result in savings of $55,900 to $69,800 in salaries and benefits.

F9.24 All YSD employees, including management, are considered hourly employees and are therefore eligible for overtime and in accordance with the FLSA. In 1998, there were 13 YSD managers who earned approximately $46,784 in overtime. Allowing managers to receive overtime appears to provide a disincentive to taking a critical managerial focus on reducing this cost.

R9.5 The City and its labor counsel should review policies regarding the eligibility of management employees for overtime pay. According to the codification for the Fair Labor Standards Act (FLSA) (29 U.S.C. section 201 et. seq), employers are not required to pay premium rates for excess hours worked in the workweek by employees who fall within the following classifications:

- Executive
- Administrative
- Professional
- Computer Professional

The application of these exemptions does not require any administrative action by the Wage and Hour Division of the US Department of Labor, either by way of certification or clarifying regulations. The City should also review the FLSA and regulations to determine whether any employees satisfy the definition and standards for the exemption. Although the Wage and Hour Division provides interpretations of the scope of these exemptions, such interpretations provide only limited protection to employers who rely on them. Such employers may be spared only from any retroactive liability, if it is found that the exemptions were misapplied to given employees.

Financial Implication: If the YSD eliminated management from qualifying for overtime the sewer department could save approximately $46,784 annually in overtime costs.

Additionally, the City of Youngstown should consider in the next labor union negotiations including only the actual hours worked in excess of 40 hours per week for overtime pay. Benefits such as personal time should not count toward hours worked when calculating overtime. See the **Employee Related Issues (sub-section A, Contractual Issues)** section for a recommendation to eliminate selected leave benefits from the calculation of overtime.

F9.25 In addition to regular overtime expenses, the YSD is charging holiday premium time (1.75 x hourly rate) to its overtime line item. This inflates the overtime line item and makes it appear that YSD employees are receiving more overtime than actually worked.

R9.6 The City should revise its process of accounting for holiday overtime. The eight hours paid to employees at the holiday premium rate should be charged to a holiday overtime line item. This would allow the YSD to accurately track and limit overtime and evaluate how work is scheduled.

F9.26 Job responsibilities contained within certain job descriptions appeared to overlap other positions. For example, the system maintenance and catch basin chiefs are responsible for supervisory, skilled and semi-skilled mechanical work in maintenance and repair of equipment, storm and sanitary sewers, buildings and related items for the waste water division. According to the assistant superintendent, 75 percent of the sewers are combined sanitary and storm lines and 25 percent are segregated lines. Based on this information, it appears that both the system maintenance chief and the catch basin chief essentially perform the same function. Additionally, between 1990 and April 1996 both position responsibilities were performed by one employee.

R9.7 The YSD should review its job descriptions and listed responsibilities for each position. If job descriptions fully captured the scope of position responsibilities, the YSD could prevent underutilized positions. In addition to updating job descriptions to adapt to a changing environment, YSD must be cognizant of the required compliance with ADA requirements and must include the following types of information: job title, salary information, job summary, specific responsibilities, primary interactions, equipment operation requirements, level of decision making, knowledge, skill and ability requirements, qualifying education, training, experience and special job descriptions.

F9.27 According to the labor union agreement, employees receive fifteen sick days annually which accumulate with no limit. Management employees receive the same sick leave benefits; however, sick hours accumulated are capped at 1,500. In 1998, YSD employees averaged 11.71 sick days for a total of 961 sick days taken. This was the highest sick leave use among all departments within the City of Youngstown. See the **Employee Related Issues (sub-section B, Benefit Administration)** section of this report for further discussion of this issue.

According to the collective bargaining agreement, the department head may require an employee to furnish a satisfactory written and signed statement to justify the use of sick leave. However, the YSD has required a physician's written excuse upon the third consecutive day based on a City ordinance dated June 1974. Additionally, the agreement provides a pay incentive of $270 to employees who do not use sick leave benefits for a six month calendar period.

R9.8 The YSD should closely monitor sick time use by utilizing sick leave reports which include amount of sick time taken, reasons for absences, and sick leave balance. According to the administrative officer, the high number of sick days taken also contributes to high overtime costs, particularly in plant operations which operates 24 hours a day, 7 days a week. When an employee calls in sick, another employee is required to fill the position which creates additional overtime costs. According to the Bureau of Labor Statistics, the average number of sick days taken by 12 month government employees is 4.7 days.

Because of the excessive amount of sick leave taken per employee and the cost associated with overtime paid to employees, the YSD should consider implementing policies to assist with the reduction of sick leave which could include requiring sick leave utilization to be a component of the employee's evaluation
The policy should also outline disciplinary action to be taken for documented cases of sick leave abuse. See **Table 2-6** and **R2.2** in the **Employee Related Issues** section of this report for a further discussion of sick leave issues.

Financial Implication: If the YSD could reduce the 28 plant operation employees' sick leave use by 30 to 50 percent to be more in line with Bureau of Labor Statistics averages, the City could realize a savings of approximately $18,400 to $30,700 in overtime expenditures. The cost savings were calculated based on plant operation employees incurring eight hours of overtime for every sick day taken multiplied by the average hourly premium rate. The premium rate is based on the average annual salary in **Table 9-9** multiplied by the 1.5 premium pay factor.

F9.28 The City does not require full-time employees to contribute toward the monthly medical premiums. The rate for family coverage is the same as that for single coverage. Since the most recent contract, effective January 1, 1999, union employees are eligible to receive dental and vision coverage.

Health Care Coverage		
Super Blue Select	-	$369 monthly with $0 cost to the employee
Traditional Hospitalization	-	$416 monthly with $0 cost to the employee
Dental and Vision		
Single Coverage	-	$24.51 monthly with $0 cost to the employee
Family Coverage	-	$75.66 monthly with $20 cost to the employee

R9.9 The City should negotiate an employee contribution to health care premiums. Refer to the **Employee Related Issues (sub-section B, Benefits Administration)** section of this audit for a recommendation and financial implication related to restructuring of the benefits package to provide a greater cost sharing between the City and the employee.

F9.29 According to the labor union agreement, payments shall be made to employees at the rate of $5.25 for each meal, payable on a quarterly basis. Meal tickets are provided to employees upon completion of two additional hours of work beyond the normally scheduled work day and for every four hours thereafter. During periods of emergency call out, a meal ticket is provided after each four hours of service, including the first four hours, regardless of the

length of the call out. Meal ticket reimbursements totaled $9,643 in 1998. Refer to the **Employee Related Issues (sub-section A, Contractual Issues)** for a recommendation to eliminate meal ticket payments and a related financial implication.

Rate Structure and Revenue

F9.30 In 1994, the YSD commissioned a study of sewer rates conducted by the Montgomery and Watson engineering consulting company. The study reviewed the adequacy of the existing sewer rate schedule to support the projected activities for the YSD for the period of 1995 to 1999. The study recommended that the YSD adopt a 28 percent increase in sewer rates for 1995 and 1996 and an additional 8 percent increase for 1997 to 1999. These increases were to enable the City to meet projected operating expenses, existing debt requirements, and new debt service for capital improvement projects. Additionally, this recommendation was contingent upon the City being able to arrange a temporary transfer of funds or an inter-departmental loan to offset a projected $775,000 revenue shortfall in 1995 even after the recommended rate adjustment. The sewer rate increases were implemented as recommended in the study.

F9.31 Recently, the board of control of the City of Youngstown passed ordinance 99-109 authorizing the sewer department to contract for the professional services necessary to undergo another sewer rate analysis. The sewer rate study is scheduled to be completed at the end of August 1999. The purpose of the rate study is to determine a reasonable and appropriate rate structure that will generate sufficient revenue to cover operating expense, current debt service obligations and provide for financing of required capital improvements through the year 2005.

F9.32 The Ohio EPA publishes an annual Sewer and Water Rate Survey Report. The 1997 survey report indicated that city sewer departments differ in the method of measuring water consumption and billing periods utilized to calculate rate charges for customers. To standardize sewer rates across Ohio and to allow for comparisons among systems, standard water consumption levels were assumed for **Table 9-12** below. Annual sewer rates were calculated assuming that 3-person households consumed 85 gallons of water per person per day. Also, rates were calculated for customers within municipal limits as opposed to those outside such limits. Calculation of the annual rate per user assumed the average water consumption per household was 7,756 gallons per month (1,037 cubic feet per month). Actual consumption varies among households. Because most systems charge based on the level of consumption, individual households may have sewer costs that are higher or lower than those listed in the table below.

Table 9-12: Annual Residential Sewer Rates

Cities	1997	1996	1995	1994	1993	1992
Youngstown	$353	$327	$255	$199	$199	$199
Canton	$159	$153	$144	$128	$114	$114
Lorain	$202	$202	$202	$202	$202	$202
Springfield	$272	$272	$272	$272	$272	$272
Average statewide sewer rates	$327	$312	$298	$287	$277	$260

Source: State of Ohio EPA 1997 Sewer and Water Rate Survey.

F9.33 Among the peer cities, 1997 YSD sewer rates appear to be the highest. The YSD sewer rates have increased every year since 1995 and were above the statewide average sewer rate in 1996 and 1997. Although sewer rates are above the state average, the YSD sewer mains are in poor condition **(F9.3)**. YSD is in violation of state and federal EPA discharge standards, lacks a formal preventative maintenance plan and repair and replacement schedule **(F9.48)**, and lacks a capital improvement plan **(F9.49).** The YSD is currently undergoing another sewer rate analysis by Montgomery & Watson engineering firm which is scheduled to be completed by the end of August. It is likely that a sewer rate increase will be recommended but its implementation will be determined by the mayor, City council, and the board of control.

YSD's high sewer rates are attributable, in part, to the inefficiencies identified throughout this report. High staffing levels, the lack of controls on personnel costs such as overtime, and the absence of a planned preventive maintenance and repair program all contribute to high operational costs and the resulting high sewer rates.

F9.34 Sewer charges for City residents are approved by City council and are incorporated into water department billings. Sewer payments are received, deposited with the cashiers in the finance department, and credited to the sewer service fund. The YSD can review daily deposits through the on-line accounting system.

F9.35 The YSD treats waste water for Mahoning and Trumbull county residents. The Youngstown water department bills and collects payments from county residents for sewer service based on the volume of water consumed. Those funds are then transferred to the respective counties. Youngstown then bills the counties based on their respective shares of total water consumption and a prorated portion of operational costs in accordance with the rate agreements between the City and the counties. The counties make quarterly payments to the City.

Sewer officials indicated that a cost estimate was completed in 1996 by Mosure and Syrakis for installing meters that would measure county sewage flow into Youngstown sewer lines. According to the assistant superintendent, installation would allow a more accurate measure of the amount of county sewage treated by the City. The City's contract with the counties states that expenses related to metering chambers are to be passed on to the counties; however, the City and the counties must agree to install the meters. After an agreement has been reached, a rate must be negotiated for charging the counties based on the amount of sewage treated.

R9.10 The City should initiate negotiations with the counties to update its sewer charge agreement. Since the cost associated with metering county sewage flow is to be passed on to the counties, there should be little, if any, cost to the City for the installation of the meters. By installing meters that measure county sewage flow, YSD would be able to determine the total amount of county sewage treated. Consequently, the City would be better able to determine a fair and equitable rate to charge the counties and could potentially realize an increase in county revenue.

F9.36 In addition to providing services to City and county residents, YSD also serves industrial users, such as hospitals and manufacturing companies that discharge industrial waste into Youngstown's sewer system. There are four sources of revenue which include permit fees, fines, sample collections and lab fees. Permit fees can range from $5,200 to $15,600 and are one time fees. Sample collections are flat fees of $520 for each sampling run. Industrial sample collection frequency is based on sewage flow. Industries that have a sewage flow of 0 to 50,000 gallons per year are tested twice a year; flows of 50,000 - 100,000 gallons are tested four times a year; and any flow above 100,000 gallons is tested 10 times a year. Lab fees are determined through a bid for laboratory testing. Mosure and Syrakis, a professional engineering consulting firm, compiled a study and established the rate structure for permit and sample collection fees. These revenues are deposited into a separate pretreatment revenue fund.

The pretreatment staff annually inspects all industries to which the YSD issues permits. These inspections are performed at no cost to the industry. The inspection takes approximately 30 to 45 minutes and is designed to obtain and update information regarding the industry's operations, water consumption, types of residual waste products discharged, and whether or not the industry has a spillage prevention plan. Currently there are 23 industries with YSD permits.

F9.37 **Table 9-13** below presents all revenue sources and related data for YSD FY 1996, 1997, and 1998.

Table 9-13: Rates, Customers, Billings and Revenues

Revenues	FY 1996 Actual	FY 1997 Actual	FY 1998 Actual
City Sewer			
Monthly rate/cost per 100 cubic feet	$8.35 / $1.82	$9.02 / $1.97	$9.74 / $2.12
Number of customers	31,248	30,707	30,402
Consumption in 100 cubic feet	3,733,488	3,611,913	3,573,580
Gross customer billings[1]	$9,762,269	$10,254,652	$10,985,388
Receipts[2]	$8,926,792	$9,935,323	$10,638,205
Receipts as a % of billings	8.56%	3.11%	3.16%
County Sewer			
Number of customers	11,284	11,335	11,367
Consumption in 100 cubic feet	1,177,409	1,170,080	1,172,937
Receipts[3]	$1,950,784	$1,996,791	$2,244,991
Industrial Pretreatment			
Permit fees, fines, sample collections, lab fees	$78,617	$57,130	$168,566
Total Gross Revenue	**$10,956,193**	**$11,989,244**	**$13,051,762**
Expenditures			
Sewer Service Fund	($10,692,456)	($11,852,412)	($13,008,549)
Pretreatment Fund	($80)	($15,586)	($8,077)
Total Gross Expenditures	**($10,692,536)**	**($11,867,998)**	**($13,016,626)**
Net Revenue	**$263,657**	**$121,246**	**$35,136**

Source: City of Youngstown revenue and expenditure ledger reports.
[1]Gross customer billings are charges generated within that year.
[2]Receipts include all payments posted withing that year, regardless of billing date.
[3]Receipts are payments received from counties for charges in that year.

The number of YSD City customers and total City water consumption decreased slightly for each of the fiscal years shown above. Sewer rates have increased for each year shown in the above table. City sewer revenues increased by 11.3 percent or $1,007,993 in FY 1997 and 6.9 percent or $682,877 in FY 1998. Revenue from county customers increased by 6.7 percent or $243,142 in FY 1997 and 4.9 percent or $186,342 in FY 1998. Industrial pretreatment revenues decreased by 27 percent or $21,487 in FY 1997 and increased by 195 percent or $111,436 in FY 1998.

F9.38 As indicated in **Table 9-13**, pretreatment revenue in FY 1997 decreased by approximately $21,487, or 27 percent in FY 1997 and increased by 195 percent or $111,436 in FY 1998.

According to the YSD administrative officer, the decrease and subsequent increase in pretreatment revenues was due to untimely billing. Fines are issued only in cases where industries have discharged industrial waste at a toxic level that exceeds EPA standards. The fee range depends on the amount of the discharge and the toxicity level. Permit fees are one-time fees charged to industries which discharge waste into the City sewer lines. There have been no new permits issued to industries since 1997. Sample collections for industries are scheduled according to their sewage flow (**F9.36)**.

The pretreatment coordinator indicated that the current rates have not been updated since 1986 when Mosure and Syrakis established the rate structure. An analysis of 1998 receipts from sample collection showed $111,826 in revenues. The pretreatment and administrative officer stated that salary expenses should include the pretreatment coordinator and two pretreatment samplers. Their current total base salary is approximately $108,467. Prior pretreatment expenditures for repairs could not be traced because they were included in the general repair code, but were estimated to be approximately $3,000. YSD officials also indicated that the pretreatment program will need to replace a vehicle and sampler machines approximately every five years and will need to set aside $5,000 per year to cover this expense. Laboratory testing of pretreatment samples is performed either at the plant or by outside testing laboratories. The expense of sending samples out for testing has been paid from the sewer fund instead of the pretreatment fund, but receipts for pretreatment sample testing are properly credited to pretreatment fund.

R9.11 The YSD should review its rate schedule for all services provided to industrial users. The rate schedule should reflect anticipated equipment costs, repair and replacement costs, labor costs for sampling runs, laboratory analysis expenses, and program administration costs. Rates should be adjusted to a level sufficient to meet projected expenditures.

The analysis performed in the above finding indicated that the YSD Pretreatment Program is not accurately tracking expenditures or recording receipts **(F9.38)**. The YSD should develop formal procedures for expending pretreatment funds and crediting pretreatment receipts to the pretreatment fund. When the YSD establishes proper accounting procedures for the pretreatment fund, it can determine an appropriate rate structure and assess the efficiency of the department by comparing revenues to expenditures.

F9.39 Billing and collection of sanitation, sewer and water charges are managed through the water department. The order of application of payments collected is as follows: past due sanitation fees, current sanitation fees, past-due water and sewer charges on a pro-rated basis, current water and sewer charges on a prorated basis. Unpaid or delinquent accounts are categorized as active or dead. Active delinquent accounts are accounts that have valid addresses which allow the water department to pursue collections. In an effort to collect on these accounts, notices are mailed to customers informing them that their accounts are past due, advising

them of their right to an appeal, and warning them that water service will be discontinued if payment is not received. See the **Water Department** section of this report for a recommendation to improve collections on delinquent accounts. Since the Youngstown Water Department is solely responsible for billing and collecting sewer accounts, any efforts made by that department to collect on delinquent accounts could potentially lead to additional revenues for the YSD.

Technology Implementation

F9.40 The YSD plant operations are monitored through a centralized computer system. The Supervisory Control and Data Acquisition system (SCADA) was purchased in 1984 and upgraded in 1991. The system monitors dissolved oxygen and acid levels of sewage inflow to the plant, the temperature of pump station motors, and indicates general operating conditions for various system parameters.

F9.41 While the SCADA system has the capacity to centrally control pump stations, this function is not fully utilized. According to the assistant superintendent, six of the eleven pump stations are monitored and automated through the centralized computer room. The other five pump stations which are at the plant facility are only monitored, not automated. It was indicated that automation of these pump stations is not utilized because of the required expertise and amount of time to program the pump stations for automation. Cross-training within the department does not currently allow a re-allocation of employees to accomplish this task.

Canton is in the process of upgrading plant operation automation to the Intellussion software package which cost approximately $500,000. This package is Y2K compliant and has the ability to set valves and adjust for temperature reading and maintenance functions. The superintendent indicated that although there are computer automated systems that could perform some of the regular checking functions of an employee, Canton decided against such a system because of the immediate and potential long term cost associated with this type of automation. The new software will be installed using standard PC's and programmatic logical controllers.

R9.12 YSD should take steps to better utilize the full functionality of the SCADA system. Sufficient time and resources should be allocated to allow those knowledgeable about the system to operationalize features such as automation of the pump station controls not currently used. Better utilization of the SCADA system would assist with implementation of the staffing recommendation noted above in **R9.1** and increase departmental efficiency.

F9.42 After midnight on December 31, 1999, computer systems are at risk of failing because they may confuse the year 2000 with the year 1900. Computer systems that perform functions relying heavily on the date field are at the greatest risk. The problem stems from a two-digit

year field. Computer systems may not be able to properly interpret dates that are normally entered in short form such as "mm/dd/yy". This could result in a myriad of problems for plant operations. In order for a system to operate properly with the year 2000 date, the hardware, operating systems and software applications must all be year 2000 or "Y2K" compliant. According to the assistant superintendent, the SCADA system is not Y2K compliant. This is a serious issue because computer system failures could cause overall system failure and related sewage back-up, blockages and sewer line breaks, and may violate Ohio EPA regulations by discharging toxic waste water into the Mahoning River.

F9.43 The Youngstown City council passed ordinance (99-118) authorizing the YSD to bypass the bidding process and enter into a contract with Northwest Controls, the local representative for Bristol Babcock which custom wrote the current SCADA system. Northwest is to provide a year 2000 upgrade at a cost not to exceed $107,875. In order to save time and money, the YSD decided to upgrade the current system rather than buy a new SCADA system or replace it with a new program. Elements from the current SCADA system such as the database, graphic displays, and reports will be imported to the new upgraded system without having to totally re-enter all the data. The funds for this project were encumbered and charged to the general sewer operating fund.

F9.44 In addition to the SCADA computer system, the YSD has 21 computer work stations. Seven of those work stations are Pentium based remote stations loaded with the SCADA software which will be replaced upon completion of the upgrade to the software. The remaining 14 computers were checked for Y2K compliance and 13 were Y2K compliant.

F9.45 The YSD does not have computer software to process and monitor its work orders for sewer or plant maintenance. Currently, sewer maintenance work orders are manually completed and filed by street name. Plant maintenance work orders are filed according to the building in which the repair or maintenance work was performed. According to the assistant superintendent, YSD contracted with OCS Computer Services in 1984 to develop a software package to track work orders and maintain a parts inventory system. The software program was completed and installed in 1989 and was programmed to process scheduled and non-scheduled work orders, track equipment usage, prioritize equipment maintenance and maintain a parts inventory program. However, the system was not properly networked, causing redundant data entry. According to the electrical and mechanical chiefs, after approximately one year, the employees stopped using the program. According to the assistant superintendent, YSD paid approximately $30,000 to OCS Computer Services as an addendum to an existing contract for other computer services.

Among the peer cities, Canton appeared to use technology most effectively for tracking work orders. According to the superintendent, Canton's sewer department is currently using Paradox software to track all sewer maintenance calls and other maintenance work. For

sewer maintenance calls, the caller's name, address, contact number, and location of complaint are entered into the system. Scheduled preventive maintenance and non-scheduled work are also entered into the database. This information is used to flag problem sewer lines and report problem areas to the engineering department for capital improvements.

The Canton plant maintenance division uses Data Stream MP2 computer software for tracking work orders. The software was purchased in 1994 for approximately $3,000 and runs on the Windows 98 operating system. The Canton software can track man hours worked, costs of repairs, and inventory levels. The system is interfaced with another software program to produce a preventive maintenance schedule. Currently, the store room manager, chief of maintenance and the assistant superintendent have access to the software and input data for work orders. According to the superintendent, although it took approximately three years to fully implement the work order system, inventory control and preventative maintenance schedule, assigning a full-time person who was knowledgeable about inventory procedures and preventive maintenance would have significantly shortened the time requirement.

R9.13 The YSD should re-evaluate its processes for implementing new technology. The work order program, which took five years to implement, was never utilized to a meaningful extent and was quickly abandoned. YSD should consider implementing software programs for sewer and plant maintenance that are similar to Canton's and have the capability to process work orders and facilitate inventory control. Before purchasing a software program with the aforementioned capabilities, the YSD should carefully review its current system for completing and tracking work orders and develop new and more tailored benchmarks related to preventive maintenance tasks and a repair and replacement schedule. This information should result in a shorter and more effective time frame for implementing the new software and could potentially result in other efficiencies in sewer maintenance and plant operations, including a reduction in overtime attributable to unverified requests for emergency work (see **F9.20)**. Additionally, the YSD should complete a physical assets inventory and establish an effective preventative maintenance schedule for its equipment.

Capital Planning

F9.46 According to the assistant superintendent, the YSD must update its sewer map by July 1, 2000 in order to meet the Ohio EPA's National Pollution Discharge Elimination System compliance standards for an operating permit. This map is used to locate sewer mains as well as characterize the size and patterns of hydraulic bottle necks in the system. The YSD is currently under contract with Mosure and Syrakis for the geographical information systems (GIS) mapping of its sewer mains, interceptors, manholes, and catch basins. The current sewer map has not been updated since approximately 1984. The assistant superintendent stated that this project will be completed by July 2000.

R9.14 The development of GIS mapping of the sewer system should be coordinated with other City departments such as the water department. This data should then be incorporated into the City's comprehensive capital planning. The absence of accurate, up to date information has contributed to YSD's inability to plan for the adequate repair and maintenance of its infrastructure systems.

F9.47 The assistant superintendent also indicated that a map of sewer lines could be used to plan for capital improvements to the sewer system and to develop a preventive maintenance and repair and replacement schedule for combined sanitary and storm sewer lines. Currently, the YSD does not maintain adequate data on sewer line repair or replacement. Further, no central database exists which details the age, size, location, composition and other characteristics of YSD's sewer mains. Without such information, capital planning cannot be effectively implemented and capital resources cannot be maximized.

Canton's street department, which performs sewer maintenance functions, indicated that they use a map of sewer mains for developing a replacement and repair schedule. Additionally, customer addresses and street names are entered into a computer software program to establish a database for indicating problem sewer lines and tracking sewer lines that have been repaired or replaced. Problem sewer lines are flagged and reported to the engineering department which then incorporates this information into a capital improvement plan. Sewer lines that are consistent problems are prioritized and placed on a replacement schedule and considered when budgeting and establishing new sewer rates.

R9.15 The YSD should establish a system for tracking data on the number of miles of sewer lines maintained, repaired, and replaced. Although YSD manually completes and files its work orders, they are not consistently completed and are not used to develop repair and replacement schedules. Additionally, the YSD should work with the engineering, permits, and inspections department to develop a capital plan for repairing and replacing problem sewer lines. Complete and comprehensive information obtained from work orders could be used to make comparisons and measure performance against internal and external benchmarks established by management. Furthermore, this information is vital to developing a capital improvement plan and associated funding strategies.

F9.48 The YSD does not have a formal preventive maintenance or replacement and repair schedule for either sewer or plant maintenance. While sewer and plant maintenance manually completes and tracks work orders, the documents do not always reflect the appropriate type of maintenance work, and often lack vital information such as date and type of work performed.

R9.16 The YSD should develop a formal preventive maintenance and replacement and repair schedule for sewer mains. The preventive maintenance schedule should prioritize problem areas and be based on maintenance records, work order analysis and proformas which project

all sources of revenue and expenditure. This planning and analysis should also be performed for plant capital improvements. Developing a repair and replacement schedule requires that revenue is allocated for these projects. The YSD does not currently have a dedicated revenue stream for capital improvements.

F9.49 As part of a sewer charge study conducted in 1994 by Havens and Emerson, YSD prepared a capital improvement plan (CIP). A five-year CIP was developed which described combined system overflow (CSO) improvements, pump station modifications, plant improvements, and miscellaneous projects and purchases. The plan included cost estimates for all improvements. However, this plan was not updated to reflect changes in funding or completed projects. In addition, the plan did not present a time schedule for repair or replacement and did not identify potential funding sources.

R9.17 The capital information explained above should be incorporated into Youngstown's city-wide capital improvement plan submitted to the Ohio Public Works Commission. A CIP is a formal schedule of capital improvement projects which are approved by City council and the mayor. The plan should be supported by a preventive maintenance schedule, repair and replacement schedules, and proformas, which project all sources of revenue, capital expenditures and debt requirement schedules. Furthermore, proformas included in the CIP should be based upon current rate structures and serve as a tool to guide any future rate increases. The CIP should also be a management tool which allows City leaders and the community to easily understand how the City's financial situation will be effected by the implementation costs of any particular project.

The City should distinguish operating and capital budgets, establish capital replacement funds and identify working capital reserves. Developing separate operating and capital budgets allows for long-term capital planning and forecasting. Capital replacement funds are regularly funded sources of revenue dedicated solely to repair and replacement projects. Capital reserves provide a safety net of funding for plant operations in the event of unexpected expenditures or decreases in revenue.

F9.50 In 1998, the YSD incurred unexpected expenses to replace the duct work in the secondary treatment facilities which was required for compliance with the clean air act established by the Ohio EPA. Additionally, a jet pump for cleaning sewer lines, a pump station, an air conditioning unit for the computer room, and a tide flex to prevent back flows were replaced. The cost to replace these pieces of equipment was in excess of $459,000. These costs were absorbed into the general sewer operating fund.

F9.51 In August 1989, the City added secondary waste water treatment facilities which included a secondary pump station, trickling filters, an activated sludge aeration system and microscreens. These additions were mandated by the U.S. EPA so that the YSD could meet

the new sewage discharge standards. The YSD received a U.S. EPA grant for approximately 75 percent of the costs and the remaining 25 percent was financed by 20 year loans from the Ohio Water Development Authority (OWDA).

F9.52 The YSD currently has a $400,000 operations and maintenance (O&M) fund. According to the administrative officer, the fund was established through the EPA grant to cover unexpected general capital repair and replacement expenditures. The City could not produce any documentation from the grant or City ordinances to support how this fund is to be used or the amount to be transferred to the fund. Nevertheless, the City transfers quarterly payments totaling $400,000 from the sewer operating fund to the O&M fund. As of May 31, 1999, the fund balance was $1,364,587.

Canton currently transfers money from the general sewer operating fund to an O&M fund for general capital repair and replacement costs. This account is funded through its general operating sewer budget. The superintendent stated that, on an as needed basis, money from this account is transferred to an allocated revenue fund for repairing and replacing sewer mains.

R9.18 The City should formally adopt a policy to establish the appropriate use of the O&M fund and the total annual amount to be transferred to the fund. Additionally, the YSD should consider developing an allocated revenue fund, either supported through the O&M fund or the general sewer operating fund (105), that is specifically dedicated to replacing sewer mains. As previously indicated in **F9.14**, Youngstown's sewer mains date back to the late 1800's and early 1900's and are made of clay. The age of the sewer mains and the fact that approximately 75 percent are combined sanitary and storm mains causes blockages and other maintenance and repair problems. Due to the inherent problems in maintaining and replacing these sewer mains, the YSD should establish an allocated revenue fund for the maintenance and repair of sewer lines based on a percentage of the previous year's cost to repair and replace sewer mains.

Department Management

F9.53 Currently, the YSD manually processes purchase orders. When items are purchased, the YSD plant secretary enters the date, item description, purchase order number, company name, amount, and budget code into a spreadsheet. Upon receiving an invoice, a purchase order is completed and sent to the finance department. The finance department then enters the information into its own system. On a monthly basis, the finance department prepares a report for the YSD detailing the total amount appropriated and expended and provides an ending balance for each line item charged. This current system is inadequate because it forgoes an encumbrance process and allows the YSD to overspend budget allocations. According to the assistant superintendent and finance director, the GAFRS budgeting software has an on-line

or read only feature that allows departments to submit purchase orders for approval and have daily access to account balances. However, this system is not currently being used by the YSD and finance department. The current process is not only inefficient and paper-driven, but erodes the basic control function of the finance department. The finance director's approval should be required before making purchases above a defined dollar limit. Purchase order approval should also ensure the proper public purpose of the expenditure and verify that the proper codes and funds are used.

R9.19 The City should develop a formal procurement procedure for processing purchase orders. Purchase orders should be tracked on a day-to-day basis and entered into the GAFRS network computer software system, so that account balances can be tracked by individual departments. Training should be offered to department clerks and supervisors to ensure proper use of the on-line accounting system. A centralized system would eliminate duplicate recording of purchase orders. Refer to the **Procurement** section of this report for recommendations to improve city-wide procurement.

F9.54 The YSD does not adjust its budget throughout the year for unexpected expenditures. Emergency repairs which are not planned often have a significant effect on the budget. When these expenditures occur, it is necessary to update the budget to get a clear picture of the funds available to continue operations throughout the year. Improved capital planning may also improve budgeting and help to reduce unexpected expenditures.

R9.20 The YSD should regularly update its budget to reflect appropriation adjustments and significant unanticipated expenditures. This will allow management to more easily determine what steps may be needed to stay within budget.

F9.55 The YSD does not consistently charge pretreatment operational expenditures to the pretreatment fund. According to the finance director, pretreatment dollars are used for discretionary expenditures related to pretreatment operations. However, there are no pretreatment employee salaries or administrative costs being charged to the pretreatment fund. At the end of FY 1998, the pretreatment fund balance was $441,980. No specific City ordinance adequately defines how pretreatment funds are to be spent.

R9.21 The City should charge pretreatment expenditures to the pretreatment fund rather than to the sewer service fund. While revenues in the pretreatment fund vary significantly from year to year (**Table 9-13)**, there is adequate cash in this fund to absorb a greater share of pretreatment costs. This would allow the YSD to track pretreatment expenditures and determine appropriate fees and fines to make the operation self-sufficient.

F9.56 The City is currently involved in the litigation of a suit filed by the Ohio and Federal EPA. According to the Ohio Attorney General's Office, which represents the Ohio EPA in the

lawsuit, the City violated numerous discharge standards established by the EPA and failed to comply with the conditions of the 1984 EPA grant for upgrading plant operations and building secondary treatment facilities. The EPA submitted a settlement proposal containing approximately 100 issues of noncompliance with fines in excess of $100 million. The court of jurisdiction in this matter extended a March 30, 1999 deadline for the City to make a counterproposal for negotiating projects to be completed and fines for noncompliance. Hearings have been suspended pending the City's completion of a system characterization study to determine short and long-term controls to eliminate overflows that violate EPA standards. The characterization study is due to be completed by July 2000.

R9.22 The City of Youngstown and its sewer department should make compliance with all pertinent EPA standards and regulations and remediation of past violations a top priority. Past neglect, combined with inefficiencies such as poor staffing and personnel controls, high sewer rates, and the lack of capital planning are signs of an ineffective operation. The City should begin immediately to improve YSD operations by addressing the issues and recommendations contained in this report and should redirect the resources made available by those improvements to EPA compliance.

Financial Implications

The following table represents a summary of annual cost savings. For the purposes of this table, only recommendations with quantifiable financial impacts are listed.

Summary of Financial Implications for YSD

Recommendation	Annual Cost Savings
R9.1 Reduce staff by 10 to 12 positions	$438,034 - $525,641
R9.4 Reduce overtime expenditures for non-management employees	$55,900 - $69,800
R9.5 Eliminate management eligibility for overtime	$46,784
R9.8 Implement policy to aid in the reduction of sick leave use	$18,400 - $30,700
Total	**$559,118 - $672,925**

Total savings could vary depending on the number of employees reduced, recognizing that final staffing levels must be consistent with the outcome of the EPA litigation. Further, the magnitude of the annual cost savings associated with some recommendations will be affected by the implementation of other interrelated recommendations.

Conclusion Statement

YSD faces significant operational challenges such as determining appropriate staffing levels, establishing a replacement plan for facilities and equipment, ensuring compliance with EPA regulations, and establishing a rate structure to support general operations as well as capital improvements. YSD exhibits numerous operating inefficiencies and is not effectively achieving levels of service comparable to its peer cities when considering the size of the respective operations and sewer rate structure. Its staffing levels appear to be relatively high, particularly in sewer maintenance and plant operations. The YSD should strive to make its operation more efficient by reviewing work schedules and actual work being completed, providing cross-training staff to enable them to perform multiple tasks, and realigning its current organizational structure.

YSD does not have an effective system in place for tracking work orders. Such a system could be used to determine the type and amount of work accomplished and the time it takes to complete work assignments. Systematically tracking work orders would help the department to measure effectiveness and efficiency of current staffing levels for both sewer and plant maintenance crews. YSD also lacks a formal preventive maintenance or replacement and repair schedule for either sewer or plant maintenance. Further, there is no dedicated revenue source for replacing capital equipment or infrastructure. Having a preventive maintenance and replacement and repair schedule as well as an identified source of revenue for replacing facilities and equipment would help the department prepare an effective capital improvement plan (CIP). The YSD's CIP should be incorporated into a city-wide CIP, which could be used as a management tool to allow City leaders and the community to easily understand how the City's financial situation will be effected by major project costs.

The YSD's current sewer rate structure appears to be sufficient to meet operational needs; however, the revenue from its rate structure is not effectively budgeted for general operations and capital improvements. Unexpected expenditures for capital needs are not being properly charged to established budgeted line items. This practice does not provide the accurate financial reporting necessary to allow the department to effectively plan and budget. Also, YSD is inconsistently charging pretreatment expenditures to the industrial pretreatment revenue fund. Most pretreatment program expenditures are being charged to the general sewer operating fund. The pretreatment rate structure is not established on the basis of historical operating costs and revenues for the function do not appear to be sufficient to fund pretreatment operations and capital needs.

The YSD should review its current staffing to determine the optimal level needed for effective operations. Implementation of an automated work order system, development of a formal preventive maintenance and replacement and repair schedule, and accurately accounting for all revenues and expenditures would help the YSD better manage its financial and human resources and improve its overall operation.

Finally, YSD should make full compliance with all pertinent EPA regulations and standards a high priority. Implementation of the recommendations contained in this report, combined with the establishment of an appropriate rate structure, will provide significant resources to support the City's compliance efforts.

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Engineering, Permits and Inspections

Introduction

As provided for in section 20 of the City of Youngstown's charter, the City is organized into six administrative departments. The fourth administrative department provided for in the charter is the department of public works. The department of public works is managed by the deputy director of public works who also functions as the chief engineer of the City and the commissioner of engineering.

According to section 27 of the City of Youngstown's Charter, the department of public works consists of three divisions. These three divisions are as follows:

1. engineering, construction, maintenance and repair
2. public buildings and grounds
3. building, plumbing and wiring inspection

The first of these three divisions, engineering, construction, maintenance and repair (the division) along with the building, plumbing and wiring inspection processes will be the central areas of concentration and review. The division currently operates with a staff of six. The six staff members include the deputy director, two class II engineers, one land negotiator responsible for preparing deeds and acquiring property for the City, one assessment supervisor and one clerk typist.

This section is divided into two separate sections: (A) engineering division, (B) inspection and permit administration. Background information and findings are addressed in each subsection. This chapter contains commendations of the district's best practices and recommendations for further consideration.

A. Engineering Division

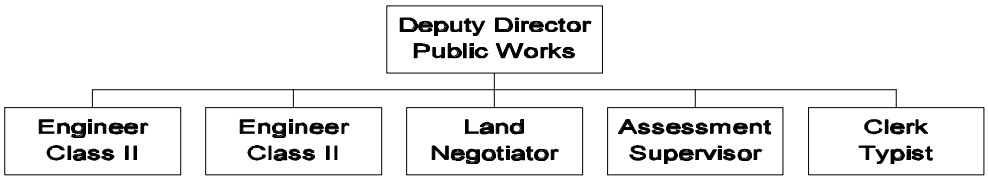
Background

The following section focuses on the operations of the City of Youngstown's engineering division and is divided into two parts. The background portion of the engineering section addresses current staffing organization, budgetary information, organizational function, the division's summary of operations and the performance measures used to assess the operations of the division. The second portion of the engineering section documents the findings, commendations, and recommendations associated with those performance measures in the areas of staffing, outsourcing, and technology utilization.

Organization Chart

The following chart provides an overview of the division's organizational structure and staffing levels.

Chart 10-1: Engineering Division



Organization Function

Division staff members include the deputy director of public works, a land negotiator, an assessment supervisor, two class II engineers and a clerk typist. The deputy director of public works, also referred to as the chief engineer of the City, has oversight responsibilities for the following divisions under the Youngstown's public works department: streets, traffic, housing, water and waste water, as well as his direct responsibility for the engineering division. In addition, the deputy director currently performs the duties of the building commissioner and traffic coordinator due to unfilled vacancies.

Summary of Operations

The engineering division administers the planning and design activities of all City roads, bridges, sewer systems, waste water treatment plant and related infrastructure facilities. The division maintains all records regarding public improvements to roads, bridges and sewer projects. It reviews and approves all construction plans for residential, commercial and industrial development within the City. In addition to the City engineer's more traditional duties, as a result of decreases in staffing levels over the past decade, he has been administering the contract for trash collection and recycling; the purchase, sale, acquisition, dedication, vacation, or other use of land necessary for the construction of public improvements; and processing the inventorying and billing special assessments for whiteway lighting.

Staffing

Table 10-1 represents the current staffing level for the division for the calendar year 1998.

Table 10-1: Engineering Division Staffing

Classification	FTE Employees
Deputy Director of Public Works	1
Building Commissioner[1]	0
Traffic Coordinator[1]	0
Engineer - Class II	2
Land Negotiator	1
Assessment Supervisor	1
Clerk Typist	1
Total	**6**

[1] Currently vacant and assumed by the Deputy Director

Financial Data

Table 10-2 presents calendar years 1997-98 actual expenditures and the budgeted data for 1999.

Table 10-2: Engineering Division Expenditures 1997-99

Appropriation Account	Actual Expenditures 1997	Actual Expenditures 1998	Budgeted Expenditures 1999
Salaries and Benefits	$226,840	$245,678	$247,200
Purchased Services	$8,543	$4,316	$10,400
Supplies and Equipment	$17,843	$38,224	$11,800
Miscellaneous	$12	$0	$2,000
Total	$253,238	$288,218	$271,400

Source: City of Youngstown 1999 Budget report

Performance Measures

The following is a list of performance measures that were used to review the division:

- Appropriate allocation of resources in relation to workloads
- Clearly defined roles, responsibilities and authorities of key participants in the affairs of engineering department
- Appropriateness of job descriptions
- Assessment of contracted services compared to services performed in-house
- Comparison of engineering project cost to peer cities
- Assessment of technology utilization

Findings\Commendations\Recommendations

Staffing Analysis and Contracted Engineering Services

F10.1 Of the engineering department's six employees, two are class two engineers. The engineers are responsible for the majority of the functions of the department. Consequently, they perform a number of assorted duties. Examples of these duties include the following:

- Inspecting of excavation, streets, sidewalks, curbing, gutters, sewers and fences
- Inspecting of all aspects of city construction and issuing written and oral instructions to contractors or city personnel
- Assigning and directing inspectors, conducting meetings with inspectors, reviewing plans and specifications and attending pre-construction meetings
- Conducting pre-construction meetings with contractors and utility companies
- Performing hydraulic analysis for storm drainage design
- Designing storm water and sanitary systems
- Overseeing citywide resurfacing projects and sidewalk rehabilitation projects
- Administering contracts
- Drafting various other capital improvement projects

Engineering departments in the peer cities each generally perform the same tasks as Youngstown's engineers.

F10.2 **Table 10-3** illustrates staffing levels for the engineering departments of peer cities.

Table 10-3: 1998 Peer City Comparison of Staffing Levels for Engineering Departments

	Youngstown	Canton	Lorain	Springfield
Administration	3	3	3	5
Clerical	1	1	1	1
Engineering Technicians	2	9	4	8
Total Number of Employees	**6**	**13**	**8**	**14**

Source: Peer city engineering departments

Youngstown retains the fewest engineering staff members of the peer cities for 1998. While Youngstown remains relatively consistent with the peer cities in the number of administrative and clerical staff members, it employs significantly fewer engineering

technicians than the peer cities. Youngstown's low number of engineering technicians can be directly attributed to the City's high level of contracted services expenditures. The remaining cities all exhibited fewer consulting service contracts and more projects completed in-house (see **Tables 10-4** and **10-5**).

F10.3 As recently as 1991, the City of Youngstown's engineering division was budgeted for more than ten positions. Currently, the division is made up of six full-time employees. Over a number of years, Youngstown has outsourced numerous projects and duties of the engineering division based on the assumption that the City could realize a cost savings associated with eliminating corresponding positions within the division.

As a result of the elimination of a number of positions within the division, responsibilities have been consolidated, reassigned or outsourced. Approximately 35 percent of the division's work has remained within the division. The remaining 65 percent of the engineering division's responsibilities are contracted out to a variety of contractors. Due to the lack of personnel with appropriate licenses, approximately twelve percent of all city engineering projects must be completed by specialized firms. Examples of this speciality work include bridge design, road projects, and environmental compliance all of which cannot be performed in-house with certifications of existing staff. The deputy director of public works has indicated that, even at optimal staffing levels, the City engineering division could only complete approximately 88 percent of the work required.

F10.4 **Table 10-4** indicates the services performed in-house versus the services performed by consultants based on discussions held with peer city engineers.

Table 10-4: Peer Comparison of Services Performed In-House vs. Contracted Out

	In-House		Contracted Services	
	Type of Service	**Estimated Percentage**	**Estimated Percentage**	**Type of Service**
Youngstown	Supervise consultants Design of road resurfacing Coordinates inspectors Reviews plans & specifications Oversight of road resurfacing Contract administration Construction cost estimation	10%	90%	Design of roadway projects Design of demolition project Bridge design Arch removal Storm sewer repair design Sanitary sewer repair design Streetscape design Inspection of all construction projects Professional engineer services

	In-House		Contracted Services	
	Type of Service	**Estimated Percentage**	**Estimated Percentage**	**Type of Service**
Canton	Supervise consultants Design of road improvement Co-ordinates inspectors Reviews plans & specifications Oversight of road resurfacing Contract administration Construction cost estimation	15%	85%	Street improvement design Water treatment plant improvement design Storm sewer repair design Design of city beautification/streetscape project
Lorain	Supervise consultants Design of road resurfacing Design of road improvement projects Co-ordinates inspectors Reviews plans & specifications Oversight of road resurfacing Contract administration Construction cost estimation	40%	60%	Design of water treatment facility improvement & pipe relining Storm sewer repair design Bridge design
Springfield	Supervise consultants Design of road resurfacing Minor bridge design Planning waterline recycling Street beautification design Soccer complex design Perform all construction inspections Reviews plans & specifications Oversight of road resurfacing Contract administration Construction cost estimation	90%	10%	Major bridge design Sewer system design Water Treatment plant -

Source: Peer city comparison information

F10.5 Peer city projects completed by engineering departments were either contracted out or performed in-house. If the department was directly responsible for the project design and/or construction, cost data is not available because the departments do not track costs by project. Contract costs of the projects performed by outside vendors can be determined. However, typical engineering department projects span two fiscal years.

Table 10-5 compares the City of Youngstown's engineering project costs with the peer cities. Additionally, the table reflects the consulting services employed by the City of

Youngstown for its capital improvements projects in 1998 were approximately 21 percent of the total construction costs. Conversely, the cities of Lorain and Springfield exhibited significantly fewer expenditures on consultants. Canton most closely approximated Youngstown's reliance on consultants at approximately eight percent of the total construction costs. As illustrated in **Table 10-5**, a staffing analysis among the peer cities cannot be completed because construction projects can stretch over a period of years and consulting services are based upon the size and scope of each individual project. The following table illustrates the consulting and construction costs for engineering projects in 1998.

Table 10-5: 1998 Peer City Engineering Project Costs Comparison

	Youngstown		Canton		Lorain		Springfield	
	Consulting	Constr.	Consulting	Constr.	Consulting	Constr.	Consulting	Constr.
Roadway-In-House	In-house	$1.20m	In-house	$327,400	In-house	$1.73m	In-house	$2.85m
Roadway-Consultant	$890,000	$3.40m	$199,200	$1.84m			$330,000	$2.45m
Bridge	$72,000	$500,000			In-house	$35,900	In-house	$365,000
Sewer	$670,000	$2.88m	$112,800	$2.59m			In-house	$395,500
Storm Sewer	$690,000	$2.70m	$69,500					
Waterline							In-house	$205,000
Streetscape	$11,600	$56,000	$520,900	$6.84m			In-house	$292,000
Fire Station	In-House	$49,000						
Soccer Complex							In-house	$223,000
Totals	$2.33m	$10.79m	$902,400	$11.60m	$0.00	$1.77m	$330,000	$6.78m

Source: Peer city comparison information

F10.6 Because a full-time inspector is required on the construction site, and the City of Youngstown does not currently have the staffing resources available to comply with this requirement, it incurs significantly higher consulting fees ($2.3 million) than the peer cities (as reflected in the **Table 10-5**), as well as completing fewer design projects in-house. The following table illustrates the number of engineering design projects completed in-house versus the number of projects contracted out. As indicated in **Table 10-6**, the City of Youngstown completed the design work for two projects in-house and contracted the remaining design work to various consultants. Although the City of Canton mirrors this trend, Lorain and Springfield completed the majority of project designs in-house.

Table 10-6: 1998 Peer City Engineering Project Design Comparison

	Youngstown		Canton		Lorain		Springfield	
Design Type	In-House	Consultant	In-House	Consultant	In-House	Consultant	In-House	Consultant
Roadway	1	4	1	5	1	0	10	2
Bridge	0	1	0	0	1	0	2	0
Sewer	0	3	0	3	0	0	3	0
Storm Sewer	0	2	0	1	0	0	0	0
Waterline	0	0	0	0	0	0	1	0
Streetscape	0	1	0	1	0	0	2	0
Fire	1	0	0	0	0	0	0	0
Soccer Complex	0	0	0	0	0	0	1	0
Totals	2	11	1	10	2	0	19	2

Source: Peer city comparison information

F10.7 The majority of cities employ a Professional Engineer (PE) who is legally responsible for approving all plans the City designs and must carry liability insurance. Currently, the City of Youngstown does not employ a PE. Therefore, when the City designs plans for a building or street, it must hire a registered PE to sign off on the plans prior to beginning the project. There is some indication that the City does not have the resources available to offer a competitive salary and benefit package to retain a PE on a full-time basis.

F10.8 **Table 10-7** illustrates the City of Youngstown's consulting expenditures from 1996-98. Costs vary based on the size and scope of the projects to be completed in each year.

Table 10-7: Consulting Services Expenditures 1996-98

Consultants	1996 Actual Expenditures	1997 Actual Expenditures	1998 Actual Expenditures
Bartolo and Associates	$14,155	$0	$0
Finkbeiner, Pettis & Strout, Inc.	48,808	30,857	11,628
Fisher Engineering	6,491	16,685	41,235
Hanahan-Strollo, Inc.	727	0	0
Metcalf & Eddy, Inc.	9,850	29,441	15,231
Montgomery-Watson	178,920	18,509	59,279
MS Consultants, Inc	598,693	1,439,345	2,200,251
Thomas Fok & Associates	0	0	0
Total	$857,644	$1,534,837	$2,327,624

Source: City budgetary documents

F10.9 The department bids out all construction services, as well as all maintenance and service contracts, in accordance with the City charter. Purchases of any item or group of directly related items having a single or aggregate cost which exceeds $15,000 are required to be adopted through ordinance by the City council and competitively bid in accordance with ORC § 735.05.

Professional service contracts utilize a request for qualification statements. When the most qualified applicant is selected, the City and prospective consultant negotiate a scope of services agreement by requesting a cost proposal. If the City and the consultant cannot agree upon a suitable fee, the bid will be offered to the second most qualified applicant. When a fee has been agreed upon by both the City and the consultant, the deputy director's recommendation is submitted to the board of control who is responsible for the final approval of all professional services contracts.

C10.1 The City has provided an effective means of securing professional and construction services through bids or statements of qualification and cost proposals. By requiring the involvement of a number of different parties in the contracting process, the City can ensure the most efficient provider is used.

R10.1 Because the City spent approximately $2.3 million for engineering consulting fees in 1998, City council should modify existing purchasing policies to expand the use of request for proposals and increase the number of purchased services subjected to request for proposals. The policy should address dollar thresholds and types of purchases that would be subject to competitive pricing. The finance department should develop statistics to determine these thresholds, attempting to cover a majority of annual purchase service expenditures. The

request for proposals should be written in a way that allows the vendor flexibility and creativity in presenting alternative proposals which could offer similar services to the City at a cost-effective price. More frequent solicitation for request for proposals will help ensure the City procures purchased services at the best possible price, and that vendor selection is made objectively.

F10.10 Currently, the engineering division employs two class II engineers. Due to the reorganization and consolidation discussed above, the class II engineers perform the inspection duties of the draftsmen and engineering technicians as well as their specified duties. The following are the duties performed by the City's two engineers listed by classification:

- **!** Draftsman Class I and II - Inspects excavation, streets, sidewalks, curbing, gutters, sewers and fences
- **!** Engineering Technician III - Inspects all aspects of city construction and issues written and oral instructions to contractors or city personal
- **!** Engineering Technician IV - Assigns and directs inspectors, conducts meetings with inspectors and reviews plans and specifications and attends pre-construction meetings
- **!** Engineer Class I - Performs all of the above
- **!** Engineer Class II - Performs all of the above plus conducts pre-construction meetings with contractors and utility companies

R10.2 Because the division has only two engineers, the City has numerous consultants currently on contract to provide a wide array of services. The City should consider a comprehensive review of all consultant contracts regardless of monetary amount. Specifically, each year the City should consider aggregating types of consulting services into similar groups which could reduce time associated with managing individual contracts. Additionally, the City should develop a clear strategy of accomplishments expected by using these consultants and streamline the process of approving the contracts. An expanded use of official requests for proposals would increase competition among vendors and likely lead to better service delivery for the City.

F10.11 Road resurfacing projects constitute a significant portion of the engineering services that are contracted out. In the past, the City has employed consulting firms to perform the inspections made on road resurfacing. In 1998, the division's engineers were able to perform inspections on two road resurfacing projects at a substantial cost savings for the City. To realize these cost savings, the administration of the road resurfacing as well as the inspection of the finished product were completed without the use of outside consultants.

The inspection of the completed project resulted in additional savings as the City employee performing the inspection cost the City $23.28/hour in salaries and benefits ($25.40 for overtime hours), while the consulting inspections would have cost $32.50/ hour ($40.00 for overtime hours). The total costs associated with completing one resurfacing project in-house were $2,746 less than the total costs utilizing a consultant. These figures illustrate the costs for engineer class II employees to perform the administration and inspection duties of a road resurfacing project which are typically completed by an engineering technician II in other cities. However, those duties could be performed by an engineering technician whose salaries and benefits per hour would only be $19.82 ($21.23 for overtime hours). See **R10.3** for staffing a discussion.

F10.12 The deputy director of public works feels that 35 percent of the engineering services can be returned to the department to realize significant savings and increased service provision. For the years 1996 and 1997, the engineering division contracted out services totaling approximately $2,400,000. A cost analysis completed by the deputy director revealed that 35 percent of those contracted services could potentially be brought back in-house, which equates to approximately $420,000 annually.

Currently, the City exhibits significantly higher consulting costs than the peer cities due to staffing limitations (see **F10.2**). Because consultant costs are increased substantially when the scope of service includes the mandatory supervision and inspection of construction projects, each of the peer cities employs to varying degrees, engineering technicians and draftsmen which are responsible for the daily supervision and inspection of construction projects.

R10.3 The deputy director's proposal indicates that the City may be able to increase project design services by 35 percent if four additional staff members were hired into the division which is comparable to the staffing levels of the peer cities. To justify the hiring of four additional employees, the following scenario has been constructed by the engineering department to determine the additional staffing required to produce $420,000 worth of services annually:

- The engineering costs associated with design services for the rehabilitation of Albert Street are approximately $60,000. Because the engineering department is most equipped to complete design projects of this type, the City could retain seven of these projects to successfully bring 35 percent of the consulting services back in-house ($60,000 x 7 = $420,000)
- The following table illustrates the positions and hours required to complete the additional services

Table 10-8: Additional Positions Required to Retain Engineering Services

Position Title	Hours to Complete Design Services for 1 Rehabilitation Project	Hours to Complete Design Services for 7 Rehabilitation Projects	Number of Positions Required to Complete Additional Projects
Engineer Tech III	1,040	7,280	3
Draftsman II	160	1,120	1
Engineer Class II	416	2,912	0
Deputy Director of Public Works	40	280	0

Four additional engineers may enhance the timeliness and quality of services offered by the City by:

- Completing utility inspection that is currently not being conducted by the City
- Performing spot inspections of streetcut, curbcut and sewer inspections which are not consistently performed
- Enforcing contractor compliance with regulations directly (consultants do not have the ability to enforce regulations, they can only monitor and report)
- Providing savings of over $250,000 which gives the City the option to hire additional staff to bring more projects back in house creating cyclical benefits

Financial Implications: The total cost of the four recommended staff members would be approximately $165,859 based on the following assumptions:

- engineering technician III - three employees with salaries and benefits of $41,226, for a total of $123,677
- draftsman II - one employee with a total salary and benefits of $42,182

Consequently, the total savings per year would be $254,141 ($420,000 - $165,859). In addition to the noted cost savings, the cost of additional internal engineering services could potentially be recouped through different grants, such as State Issue II and CDA Block Grants.

While it appears there is some merit to the deputy director's proposal in terms of the cost benefits associated with hiring additional employees to limit the City's need for project design consultants, other factors must be considered before its implementation. Such factors include: the ability to recruit qualified employees, any unproductive/down time which may be associated with additional staff and the quality of projects completed by an enhanced city department versus the quality of private consultants. The proposal has the

potential to bring Youngstown into line with peer city practices. However, quality and productivity issues must be examined by the deputy director to ensure that the City can produce high-caliber work at the level that is currently being provided.

F10.13 The City's sole land negotiator performs the following duties: prepares and calculates the whiteway lighting district special assessment, performs duties associated with the land re-utilization program, researches land titles, deeds and plats, reviews and prepares property descriptions, prepares inventory and payment for real estate taxes on city owned property, prepares legal documents for review by legal department, acquires property and performs all secretarial and clerical duties associated with the workload. The land negotiator compiled 267.1 hours of overtime in 1998 at a cost to the City of $7,061 due to a lack of adequate staffing as well as an absence of cross training to perform these duties when the land negotiator is absent from work (see further discussion of the land bank program in the **Street Department section**).

R10.4 The land negotiator compiled 267.1 hours of overtime in 1998 at a cost to the City of $7,061. Conversely, the division's clerk typist has indicated she spends the majority of her day without tasks to complete. For the engineering division to operate effectively, full use of the existing staff is necessary. Because the clerk typist has idle time which should be used, the engineering division should consider reassigning a portion of the land negotiator's duties, specifically the whiteway lighting district special assessment, to the clerk typist.

The City should realign the functions of both the land negotiator and clerk typist to reduce the work load of the land negotiator while taking advantage of the clerk typist's available time. Additionally, the engineering division should create and implement a cross training program for employees to ensure operational efficiency in the event that staff members are unable to perform their duties for any reason.

Financial Implications: Realigning the functions of the land negotiator and clerk typist does not involve hiring any additional staff. However, the City could realize an annual savings of approximately $7,061 by reducing the overtime payments to the land negotiator for the timely completion of her work.

Technology Utilization

F10.14 The engineering division currently uses AutoCad Release 13, which is a stand alone computer aided drafting program used to produce the division's drawings, which requires the user to decipher the data and then enter each survey point into the drawing by hand. Each drawing takes between six and eight hours to complete. Currently, each of the peer cities makes use of the AutoCad Release 14, which allows them to complete drawings at a more rapid rate than Youngstown.

R10.5 Youngstown should consider purchasing a total field surveying unit which would gather the information in the field. A data collector, which is a hand-held computer connected to the total station, compiles all of the information input by the survey crew. The data collector, linked to the office computer, transfers the data into the land development package. The program uses the information to place all of the surveying points onto a drawing in the AutoCad working environment. With the companion software, the draftsman has all of the information needed to create the drawings to produce a full set of engineering plans. The City has indicated the time required to produce one complete drawing using the land development program is approximately two to two and a half hours, whereas the average time to produce the same drawing using AutoCad Release 13 by itself is six to eight hours.

Because the utilization of a total field surveying unit would provide the City with the ability to complete drawings three to four times faster, the City could increase the number of projects currently being completed. Therefore, the City should also do a cost benefit analysis to determine if hiring a professional engineer full-time or on an hourly basis would offset the increased number of designs produced by the total field surveying unit and reduce the excessive consulting fees currently being expended (**see F10.7**).

Financial Implication: Upgrading the division's technology by purchasing the total field surveying unit would be approximately $9,700. However, with the additional technology, the City would have the ability to complete drawings three to four times faster, thereby increasing the efficiency of the engineering department's internal operation. Preparing more drawings internally would result in annual cost savings by reducing the amount that must be paid to external contractors, however the potential savings could not be reasonably estimated.

B. Inspection and Permit Administration

Background

The following section focuses on the operation of the City's inspection and permit processes as they relate to the City's bureau of building and housing (the bureau) and housing code enforcement subdivision. Inspection and permit administration is not centralized in the City of Youngstown. A number of permits are issued through the bureau of building. However sidewalk, curbcut, and streetcut are issued separately through the engineering division. All building, plumbing, and heating inspections are performed in conjunction with the bureau of building, but housing inspections are all performed at the housing code enforcement section which falls under the direction of the Community Development Agency (CDA) division.

Organization Chart

The following charts provides an overview of the division's organizational structure and staffing levels.

Chart 10-2: Bureau of Building

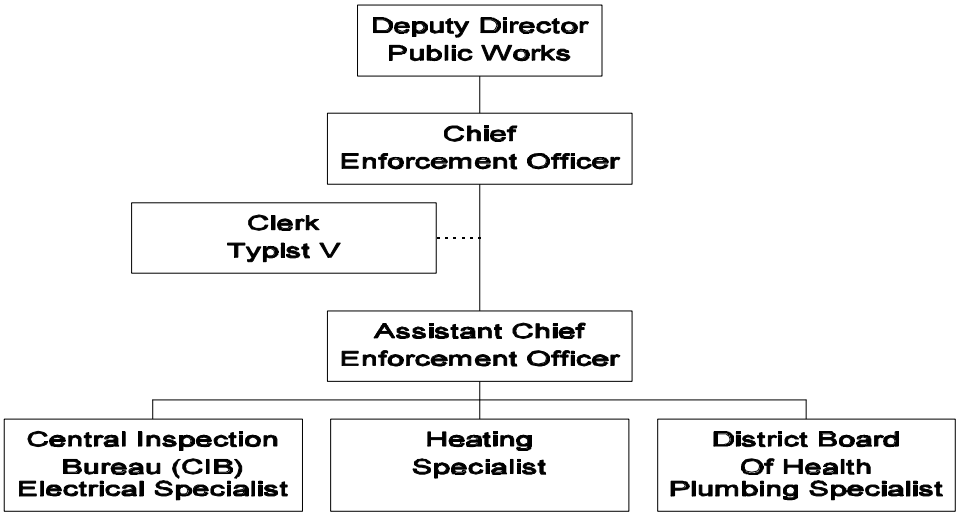
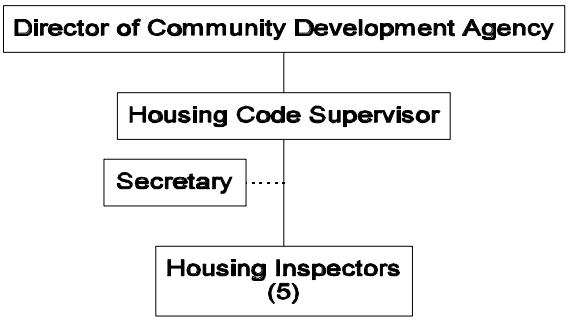


Chart 10-3: Housing Code Enforcement



Organization Function

The bureau of building reports directly to the deputy director of public works and consists of the chief enforcement officer, assistant chief enforcement officer, the heating specialist and the clerk typist V. The chief enforcement officer is responsible for the overall administration of a certified building inspection department and enforcement of the Ohio Basic Building Code (OBBC), which includes reviewing construction documents to determine compliance with the provisions of the OBBC. The assistant chief enforcement officer is responsible for performing inspections on all new residential and commercial buildings, as well as any additions to residential and commercial buildings to determine compliance with the approved plans.

Housing code enforcement inspectors operate under Ordinance No. 85226 which provides for the Youngstown Housing Code. The intent and purpose of the ordinance as stated is for "the protection of the health, safety and welfare of the general public and the owners and occupants of all buildings and/or structures or portions thereof, used or intended to be used for human habitation, including the premises on which they stand. Inspections are performed to determine whether minimum standards necessary to provide for adequate living space, prevention of overcrowding, light, air, heating, ventilation, sanitation, safety from fire, health standards, and the maintenance of building and property meet or exceed the Youngstown housing code."

Summary of Operations

The bureau of building, a sub-division of the engineering division, is responsible for enforcing the building code which includes the following types of activities:

- Issuing structural, electrical, plumbing and heating, ventilation and air conditioning (HVAC) permits for new and remodeling work
- Issuing licenses for electrical, plumbing and HVAC contractors
- Examining all new and remodeling construction plans (plans examination)
- Inspecting commercial and residential construction
- Performing electrical, plumbing and HVAC inspections (The City of Youngstown outsources the electrical and plumbing inspections. Electrical inspections are performed by the Central Inspection Bureau (CIB), a private organization, and plumbing inspections are performed by the District Board of Health which is a Mahoning county organization.)

All new residential and commercial construction requires permits. The City of Youngstown issues eight different kinds of permits: building (structural), electrical, plumbing, HVAC, zoning, sanitary sewer, storm sewer and demolition. Residential and commercial inspections, which are driven by permits issued, are also performed by the building sub-division. Residential inspections include the following: new homes, additions, roof repairs, siding, garages, additions to garages, decks, porch enclosures, windows and doors, interior remodeling and dwelling repairs for fire damage. Commercial inspections include additions, remodeling and new construction to all places of business, gas stations, offices, government buildings and hospitals.

Although all building permits require inspections, the number of inspections required per permit varies according to the size and type of project. The number and type of building inspections are not specified by any codified ordinance or other relevant city regulations. However, departmental practice states that the average building permit requires roughly five to six inspections although that number can be as little as three to four on a garage or as much as ten to twelve on a large construction project. The average structural permit will receive at least one of each of the following inspections: structural rough-in, structural foundation, final structural inspection, final electrical, final plumbing and final HVAC.

The housing code inspectors are responsible for implementing and enforcing the City of Youngstown housing code. City housing inspectors inspect vacant structures for demolition or housing code enforcement, prepare required documentation and photos and inspect interior and exterior of occupied structures. Inspectors are also required to issue court summons to property owners in violation of the housing code and testify in court, answer and resolve landlord/tenant disputes, and monitor demolition projects and rehabilitation projects. Furthermore, the housing inspectors are required to communicate findings with agencies and other city offices including municipal court,

police, fire, zoning, building and housing authority, demolition and construction contractors. Since January 1, 1996, the housing code enforcement inspectors has been funded entirely by the CDA which receives its funding through Housing and Urban Development (HUD).

Staffing

Table 10-9 represents current staffing for the bureau for the calendar year 1998.

Table 10-9: Inspection and Permit-Related Staffing

Classification	Number of Staff	FTE Employees
Bureau of Building		
Chief Enforcement Officer	1.0	0.5
Assistant Chief Enforcement Officer	1.0	1.0
Heating and Refrigeration Specialist	1.0	0.5
Clerk/ Typist V	1.0	1.0
Sub-total	4.0	3.0
Housing Code Enforcement		
Housing Supervisor	1.0	1.0
Housing Inspectors	5.0	5.0
Secretary	1.0	1.0
Sub-total	7.0	7.0
Total	**11.0**	**10.0**

Source: City of Youngstown- Department of Public Works
Note: Electrical and plumbing inspections are outsourced to CIB and the district board of health respectively.

Table 10-10 presents calendar year 1997 and 1998 actual expenditures and 1999 budgeted expenditures.

Table 10-10: Inspection and Permit-Related Expenditures 1996-98

	1997 Actual Expenditures	1998 Actual Expenditures	1999 Budget
Bureau of Building			
Salaries and Benefits	$92,718	$104,242	$108,675
Purchased Services	$38,754	$30,033	$36,000
Supplies and Equipment	$18,304	$5,641	$8,000
Miscellaneous	$380	$367	$400
Sub-total	$150,156	$140,283	$153,075
Housing Code Enforcement			
Salaries and Benefits	$378,722	$420,073	$375,275
Professional Services	$14,214	$13,760	$16,600
Supplies and Equipment	$9,648	$14,801	$13,500
Miscellaneous	$9,043	$4,961	$8,000
Sub-total	$411,627	$453,595	$413,375
Total	**$561,783**	**$593,878**	**$566,450**

Source: City of Youngstown- finance department

Performance Measures

- Analysis of permits processed for new construction including type of permit
- Analysis of staff levels
- Analysis of operational procedures
- Analysis of inspection procedures

Findings\Commendations\Recommendations

Licenses and Permits

F10.15 The City of Youngstown requires licenses for all mechanical contractors (electrical, plumbing, HVAC, etc.). It does not, however, require licenses for general contractors involved in construction or remodeling. To apply for a license for any type of mechanical work, a contractor must be tested by the City. If the contractor has obtained his state license, the City will forego the test. Licenses must be renewed annually. Sixty days prior to the expiration of a mechanical license, the permit desk is responsible for issuing a notice of renewal to the contractor.

R10.6 To ensure quality in the construction or remodeling of city edifices, Youngstown should require all general contractors to be licensed by the City or the State of Ohio. Canton, Lorain and Springfield all require licenses of general contractors which include liability insurance, registered bond and pertinent fees. Canton and Springfield require annual renewals, while Lorain has moved to a three-year rolling renewal process in which fees have been adjusted accordingly. While Springfield does not separately track contractor licence revenue from revenue received from other types of licenses, Canton and Lorain report 1998 revenue from contractor licensing as $37,225 and $34,694 respectively.

Financial Implications: Instituting a licensing process for general contractors could potentially generate approximately $36,000 in additional revenue per year for the city based on the average received by the peer cities.

F10.16 The permit process in the City of Youngstown is initiated when a customer completes an application for one of eight different permits (building, electric, plumbing, HVAC, sanitary sewer, storm sewer and demolition). After calculating appropriate fees, a receipt is presented to the applicant who pays the finance department for the total amount. Upon payment to the finance department, the applicant is issued a permit and the customer service portion of the permit process is complete. Permit applications can be submitted at the City hall permit location, through the mail or over the telephone.

After the applicant has been provided a permit, the corresponding details of the transaction are recorded on a daily log sheet which is sent to the finance department daily. For all mechanical permits (heating, refrigeration, electrical and plumbing) a monthly log sheet is kept to record information such as the date, the permit number, the book owner, the address and the dollar amount of the permit. For all building permits, a separate monthly log book is kept which illustrates the typing date, permit number, owner, address, lot number, monetary amount of the project, and contractor. Each log sheet is cross indexed and alphabetized by street name.

F10.17 For large building permits, including those with many sets of plans submitted, the permits clerk accepts both plans and applications. A number of steps are undertaken to ensure that the plans are sufficient and compliant with applicable regulations, as well as being properly recorded, labeled and stamped. After the chief enforcement officer reviews the application and corresponding building plans, the plans are routed to all applicable departments where they are reviewed for compliance with all applicable local, state, and federal ordinances, rules, and regulations. Only after each department sanctions the building plans, and the chief enforcement officer concurs with all other approvals, does the clerk typist initiate the permit process as documented above.

F10.18 In January, 1999 the bureau of building purchased the Building Department Software/Franklin Information System (BDS/FIS) software package to limit the repetitive work being performed with the permit process. This software package performs the following functions:

- Reduces repetitive typing of owner name, address, and all other information pertaining to each permit as it flows from the application, plan review, fees, inspections through certificate of occupancy
- Allows the user to customize the package's tables to work the way the department does business
- Produces reports by date range for census, dodge, use group, accounting, application expiration report, temporary certificate of occupancy expiration report and more
- Tracks and licenses contractors
- Maintains and updates property files within the area
- Flags properties that require special attention when taking an application
- Accesses records via multiple fields

The City also purchased the program "PC Anywhere" which allows authorized employees to dial-up the BDS\FIS and enter data from outside the City administration building to update the performance of inspections.

However, as of April 1999, the bureau was still issuing and recording permits using the same manual process described in **F10.16**. Once the permit has been issued and recorded, the information was entered into the computer system to compile a permit database.

C10.2 The City of Youngstown's new computer software package should allow the building sub-division to decrease the amount of repetitive work being performed in the permit process. The following are advantages of moving from a manual process to the computerization of the permit process:

- Increased accuracy
- Standardized fees
- Easier exchange of information between building inspection and zoning offices
- Easier accounting by the finance department of the fee portion to be forwarded to the state

R10.7 The manual process of issuing and recording permits is time consuming and inefficient. The bureau should immediately begin utilizing the Franklin system to it's fullest potential in the permit and inspection process. Utilization of the system would not only reduce the amount of repetitive work currently being performed, but also allow the bureau to maintain an accurate record of permits issued, schedule inspections to be completed, ensure the proper charge is assessed, provide a record of inspections actually performed and enable the bureau to complete the OBBS-mandated annual report. In addition, the system is capable of providing additional information regarding each type of permit issued or inspection performed which would aid in the management of the department in accurately measuring outputs over any given period of time.

Youngstown may also benefit by implementing a similar pen-based inspection package that can be tied into the Franklin system which can print detailed information about unscheduled and overdue actions for all active cases and create and track liens for unpaid code enforcement charges. The cities of Springfield and Lorain both credit increased customer service and permit and inspection documentation to the implementation of software systems similar to the Franklin system. The implementation cost associated with such a system is included in **R10.16**.

F10.19 **Table 10-11** illustrates the number of permits issued by type for 1996 and 1997. Documentation for total permits issued in 1998 were not available at the end of this engagement. While total permit costs were lower in 1997, the number of permits issued was 11 percent higher than in 1996.

Table 10-11: City of Youngstown Permits Issued 1996-98

	1996		1997	
Type of Permit	**Permits Issued**	**Total Receipts**	**Permits Issued**	**Total Receipts**
Total Building	543	$209,970	784	$122,406
Demo	274	$6,651	297	$7,327
Electrical	1,054	$40,266	1,042	$38,992
Plumbing	173	$22,436	159	$19,540
Refrig/ AC	83	$5,430	69	$6,176
Heating	222	$18,250	252	$22,662
Total	**2,349**	**$300,003**	**2,603**	**$217,103**

Source: Ohio Board of Building Standards (OBBS) annual report.

F10.20 The City was unable to provide information regarding the total number of permits and total amount of receipts for 1998 as of April 1, 1999. This is in violation of rule 4101:2-1-50 of the Ohio Administrative Code which requires all certified building departments to submit a yearly operational report to the Ohio Board of Building Standards (OBBS) within 90 days after the end of each calendar year.

The building department has purchased a software package (the BDS/FIS system documented in **F10.18**) which has the ability to automatically produce the OBBS-required year-end report. Currently, the City is not fully utilizing all applications made available by the Franklin software system. By using this technology fully, the City should not have difficulty remaining in compliance with the above code section.

R10.8 The City should ensure that the Franklin system is being fully employed. The system has been designed to allow the user to track permit applications and information, handle all facets of the inspection process and maintain comprehensive online records of building, permitting and inspection processing. Applications of the system include expediting the application and permit processing by using user-defined application types, permit types and maintenance paths. Additionally, the Franklin system could be used to ensure proper plan review by automatically creating, documenting and monitoring plan review steps. The system also has the ability to increase collections by allowing the user to specify required

fees, monitor penalties and print payment due reports. All of the above will contribute to the City's ability to monitor the accuracy of the permit issuance process. Furthermore, once the Franklin system is being fully utilized, the City should conduct a cost-benefit analysis to determine if a clerical staff reduction would be warranted.

Financial Implications: For financial implications associated with **R10.8**, see **R10.20**

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F10.21 **Table 10-12** compares the number of permits processed in 1998 for each of the peer cities. As reflected in **Table 10-12**, the City of Youngstown issues significantly fewer construction related permits when compared to the peer cities. Although some of the variance may be attributable to the economic conditions present in Youngstown, the poor systems in place to issue, record and monitor the permit process have a direct impact on the low number of permits issued. The City does not have adequate procedures in place to ensure that all ongoing projects obtain the proper permits or that the necessary inspections related to each type of permit are completed. Additionally, projects may be started and completed without the necessary permits and inspections which may result in a lower level of quality of work being performed as well as lost revenue related to the permitting process.

Table 10-12: 1998 Peer City Permit Comparison

Type of Permit	Youngstown[1]	Canton	Lorain	Springfield	Group Average
Building	784	1,854	3,809	1,207	1,914
Electrical	1,042	1,214	1,417	888	1,140
Plumbing	159	1,073	337	N[4]	392
HVAC	321	765	662	570	580
Sub-total	**2,306**	**4,906**	**6,225**	**2,665**	**4,026**
Sewer	98	86	138	230	138
Sidewalk	101	92	0 [2]	230	106
Streetcut	83	56	22[3]	52	53
Demolition	297	114	59	159	157
Total Permits	**2,885**	**5,254**	**6,444**	**3,336**	**4,480**

Source: Peer City Permit Information

[1] 1997 data used due to incomplete 1998 permit data

[2] Lorain did not keep track of sidewalk cuts in 1998

[3] Lorain was unable to provide complete data for 1998 due to inter-departmental discrepancies

[4] Plumbing services completed by Joint County Health District

R10.9 The City should institute adequate procedures to ensure all construction work within the City has obtained the required permits. In addition to fully utilizing the computer system to monitor permits and inspections (see **R10.7**), there should be regular inspections of the City to identify construction projects that have not obtained the necessary permits. Because the housing code enforcement inspectors are currently performing daily "street sweeps" of each ward as part of their assignments (see **F10.30**), placing the majority of this responsibility on these inspectors would seem appropriate.

F10.22 Engineers have indicated that in 1998, the City Council waived a significant portion of permit fees as an incentive to prospective businesses. The City has not maintained records to track either increases in building permits or the cost to the City of the waived permits. While this practice may assist in attracting new business, the City is forced to recoup both the cost of the permit itself, as well as the costs associated with corresponding administrative functions and ensuing inspections.

R10.10 The City should adopt a policy which defines the procedures for the waiving of permits. This policy should include clear examples of when permit fee-waiving is acceptable, how the City plans to recoup any inherent costs and any types of maximum limits on the waiving of permit fees. Waiving permit costs can be financially prohibitive as these revenues are used to offset personnel expenditures. Certain of the costs associated with the permit process are inherent to construction and should not be waived.

Financial Implications: Because each project requires varying permits, and the City does not keep complete records of permit fees waived, no financial implications could be accurately drawn. However, the engineers have indicated that the City could potentially recognize significant additional revenues from the waived permit fees.

F10.23 The engineering department designed a matrix to assist the permit desk in collecting all applicable fees. There is some indication that the full amount of fees are not being collected as evidenced on issued permit reports. The matrix documents the parties responsible for each duty associated with corresponding permits and inspections. Consequently, when a customer requests a sanitary sewer permit, the permit desk is required to send that customer to the engineering department, while plumbing, heating, and electrical permits are all issued at the permit desk.

R10.11 To ensure that all applicable parties are involved in the process, the permit desk should utilize the requirement matrix for customers requesting permits. As the technology of the Franklin system is incorporated into departmental operations, the requirement matrix can be phased out entirely due to the system's ability to process permits and their corresponding fees. See the ***Organizational Issues*** section of the report for further recommendations which would serve to alleviate the problems associated with permit fee collection.

Inspections

F10.24 The City currently has one building inspector to complete all new construction inspections and a part-time heating inspector. The City is utilizing contractors to complete electrical and plumbing inspections. A city building inspector must be certified by the state of Ohio and provide proof of at least five years employment in the construction trades. The City also employs five housing inspectors to perform code enforcement on existing residential structures. Based on guidelines set forth by the OBBS, housing inspectors do not have the qualifications necessary to perform other type of inspections. **Table 10-13** illustrates the breakdown of inspectors in each city.

Table 10-13: Peer City Comparison of Total Number of Inspectors

	Youngstown	Canton	Lorain[1]	Springfield
Building Inspectors	1	1	1.5	2
Electrical Inspectors	Contracted Out	1	1	1
Plumbing Inspectors	Contracted Out	1	1.5	N/A[2]
HVAC Inspectors	0.5	1	1	1
Housing Code Enforcement Inspectors	5	7	3	4
Total Number of Inspectors	6.5	11	8	8

Source: Peer City Permit and Inspections Bureaus

[1] Lorain's building, electrical, plumbing and HVAC inspectors are cross-trained, consequently they have been averaged across the four types

[2] All plumbing permits and inspections are conducted by a joint health district

F10.25 The City outsources the electrical and plumbing inspections. Plumbing inspections are completed by the Mahoning District Board of Health at a cost of approximately $15,000 annually, while electrical inspections are completed by a private organization, the Central Inspection Bureau (CIB), for approximately $38,000 annually for an average of 16-18 hours of work per week. Each vendor is contacted from the permit department daily and given a list of inspections required to be performed for that day. After the inspections are completed, the vendor returns the results of the inspections to the permit desk on the inspection form. These forms serve as the documentation of the work provided to the City from the vendor.

R10.12 The City should perform a cost-benefit analysis to determine the benefits associated with hiring electrical and plumbing inspectors instead of contracting for this service if the work load increases in the future. The number of electrical and plumbing inspections presently performed does not justify adding staff to the City roster. However, the institution of

adequate procedures to ensure that both the permitting process is operating effectively and the necessary permits are being obtained, could result in a significant increase in the number of electrical and plumbing inspections required, at which point the cost-benefit study would be warranted. If a determination to hire an electrical or plumbing inspector is made, the department could achieve additional operational efficiencies and flexibility by requiring a dual certification of this inspector.

F10.26 According to the Ohio Board of Building Standards (OBBS), there are no specific standards detailing the minimum number of inspections which must be performed upon each type of permit issued by a city. However, while there are no legislated minimums, the OBBS strongly recommends that the City inspects the footer, the rough-in (framing), and a complete and thorough final inspection. The OBBS further recommends three to five random inspections upon all new construction to ensure contractors and home-owners are adhering to approved plans and standards. The OBBS advocates special inspections to be performed on heating and cooling, sprinkler systems and fire alarms, as well as plumbing and electric inspections, all of which should be somehow directly tied into the permit process.

Under optimal conditions, Youngstown currently performs five to six inspections for every permit issued. The remaining peer cities perform between eight and seventeen inspections for most new construction permits issued. The greater numbers of inspections performed in the peer cities relate to additional structural inspections which are not being completed in the City of Youngstown (see **F10.28** and **R10.14**) as well as the peer cities' issuance of more permits than Youngstown (see **Table 10-12**).

Finally, OBBS recommends that the time required to review building plans should never exceed thirty days. Furthermore, all inspections should take place within 72 hours of the building department being notified by the contractor at each appropriate stage. Timely building plan reviews and inspections are imperative for maintaining efficiency since waiting for an inspection increases the time necessary to complete a project, ultimately augmenting corresponding costs for that project.

R10.13 The building department should incorporate performance measures and benchmarks to document the time it takes to complete a plans examination, issue permits and complete the inspections required with each type of permit. Currently, the office does not have a procedure in place to ensure that the required inspections are actually completed nor does it track the number of inspections completed for each permit. The BDS/FIS system (see **F10.18**) purchased by the department could provide the information needed to implement these performance measures and benchmarks if fully utilized. Properly developed and implemented performance measures and benchmarks would allow the department to accurately and objectively determine both the level of service being provided as well as the staff productivity associated with the process.

F10.27 The building inspection department is responsible for the inspection of all new construction, both commercial and residential, in the City of Youngstown. Building inspections are conducted based upon the plans approved during the permit process, with an average of five to six inspections completed for each permit granted. All building inspections are performed by a single building inspector. A schedule provided by the building inspector illustrates that he spends approximately three and one-half hours a day performing inspections. The remaining portion of the day is spent setting up appointments, reviewing work completed and traveling to inspection sites.

The building inspector has indicated that, in an average day, approximately nine inspections can be completed by a building inspector, barring any delays. However, because of the increase in permits granted over the past two years (see **Table 10-11**), sufficient inspections are not being completed. While the building inspector has the ability to complete nine inspections under optimal conditions, an average of twelve inspections were necessary per day in 1996. That figure has since increased to nearly 16 inspections per day which must be completed to eliminate his backlog.

R10.14 Because the number of building inspections required to be completed is subjective and varies with the size and scope of the project, accurate results of unfinished inspections are not available. However, the building inspector spends the majority of his day completing administrative duties including filling in for the clerk-typist during any absences. When the clerk-typist is absent or at lunch, the building inspector cannot perform inspections which contributes to his sizable backlog.

These administrative responsibilities should be reassigned to the clerk-typist who could then assist the building inspector with his remaining clerical duties. Currently, the clerk-typist fills permit requests and fulfills the clerical duties associated with this task. The department should then use the cross-trained clerk-typist from the engineering division to cover the permit desk when the building department clerk-typist is at lunch or otherwise absent.

Based on the building inspector's ability to make an average of nine inspections over a three and one-half hour period, he should be able to complete at least 20 inspections in one eight-hour period. By fully utilizing the clerk-typist, the building inspector could shift the four and one-half hours of administrative duties to perform more than twice the current amount of inspections. As a result of his ability to complete 20 inspections daily, the full array of inspections required for each permit should now be able to be made in a timely fashion.

F10.28 **Table 10-14** indicates the total number of inspections completed annually from 1996-98. The City of Youngstown did not provide the OBBS with inspection figures for 1997. Youngstown completed approximately 25 percent of the number of inspections completed by the peer cities for the two years for which they provided information. Although the City of Youngstown is making the fewest inspections, the building inspector has not been able

to complete the full number of inspections required for the permits issued. One reason for this discrepancy is that the peer cities each have additional building inspectors to complete the necessary inspections.

Springfield and Lorain city building inspectors are cross-certified to perform multiple inspections ultimately conserving resources. In the case of Springfield, each building inspector can perform an additional type of inspection such as a structural/electrical inspector, a structural/HVAC inspector or a structural/commercial inspector. Consequently, Springfield makes a minimum of eight inspections on each permit issued (excluding garages or roofs). In the case of Lorain, each housing inspector is certified to perform building inspections. Consequently, Lorain performs upwards of 14 inspections on most commercial and residential projects.

Table 10-14: Total Number of Building-Related Inspections Performed 1996-98

	1996	1997	1998
Youngstown	1,086	N/A[1]	1,446
Canton	9,213	8,480	7,410
Lorain	2,002	3,875	4,634
Springfield	3,204	4,313	4,321
Group Average	3,876	5,556	4,453

Source: OBBS Yearly Operational Report

[1] The City of Youngstown did not provide information to the OBBS regarding the number of inspections completed for 1997

R10.15 The City could increase the efficiency of the inspections process by increasing the number of staff members who have dual certification. Springfield and Lorain city building inspectors are cross-certified to perform multiple inspections ultimately conserving resources. In the case of Springfield, each building inspector can perform an additional type of inspection such as a structural/electrical inspector, a structural/HVAC inspector or a structural/commercial inspector. Consequently, Springfield has the resources to make at least eight inspections on each permit issued (excluding garages or roofs). In the case of Lorain, each housing inspector is certified to perform building inspections. Consequently, Lorain performs upwards of 14 inspections on most commercial and residential projects.

F10.29 A further explanation for the significant gap between building inspections completed by Youngstown and inspections completed by the peer cities can be found in efficiencies within departmental practices. When building permits are issued in Youngstown, the contractor or owner is directed to notify the building inspector when the project will begin. These notifications, in the form of phone messages, are catalogued in an index file system. As a

control procedure, the inspector reviews all permits issued on a daily basis. Having this control procedure in place allows the inspector to know what projects are about to begin. However, the bureau of building does not document the outcome of building inspections, nor is it using its ability to accurately track the number of each type of inspections completed annually.

Currently, the peer cities are using various software systems to issue forms to be completed by the inspector at the site which are duplicated and filed at the permit department and in the inspector's personal records. A third copy of the inspection form is presented to the applicant upon completion of each inspection. The City of Springfield has implemented a telepad computer software system for the purposes of conducting inspections. The telepad system, CitySoft (designed by HTE), gives inspectors the ability to detail inspection findings, provide accurate and complete year-end inspection totals for each type of inspection, automatically produce inspection outcomes and notices of code violations, and remind inspectors when they must re-inspect properties.

R10.16 The bureau of building does not document the outcome of building inspections, nor does it have the ability to accurately track the number of each type of inspections completed annually. The City should consider moving toward a system resembling the peer cities, in which inspection forms are completed, filed for each inspection made by the City and input into the Franklin system (See **R10.7** and **R10.8**), Youngstown will ensure appropriate inspections are completed for each permit issued and will have the ability to compare inspection outputs from year to year.

The City of Springfield has shown significant increases in the number of inspections completed as a result of the HTE telepad computer software system. In 1996, the City was able to perform 8,202 housing inspections. However in 1997, the City estimated it completed 9,500 with the use of the software system and completed them with one less employee. This represents a 16 percent increase from 1996 to 1997. Springfield officials found the system significantly aided the department's ability to document and track inspections ultimately increasing customer service. The City of Youngstown should perform a cost benefit analysis of the feasibility of implementing a pen-based or telepad inspection system similar to Springfield's.

Financial Implications: The building department at the City of Springfield indicated that the software system and corresponding telepad terminals cost the City approximately $10,000 in 1996 and has needed little upkeep over the past three years. In addition, the cost of this technology was more than offset by the reduction of one employee.

Housing Code Enforcement

F10.30 While building inspections are based on permits issued, housing inspections are driven by complaints received by the general public, mayor's office, council or other city departments including health, police, zoning and the courts. Complaints from agencies such as child services and metropolitan housing also trigger housing inspections. Inspectors make "street sweeps" which also result in code violations. Housing code inspections are made to ensure no owner or occupant of any premises shall maintain or permit on said premises, any condition which adversely affects or alters the appearance of the neighborhood, creates a health, safety or fire hazard or public nuisance.

The City of Youngstown Housing Code Ordinance No. 85226 provides the handbook for the inspectors in terms of what violation they must curtail. Examples of such violations include: broken or dilapidated fences, walls or other structures; broken, uneven or improperly maintained sidewalks or driveways; out-of-use or unusable appliances, automobiles, furniture, furnishings, or parts thereof placed on the premise; grading and drainage that prevents accumulation of stagnant water on the property; noxious weeds; infestation by pests; chipped or cracked paint; sealed roof and broken windows.

F10.31 The City council has entered into preliminary discussion about a 24-hour hotline for the City which would be manned during normal hours of operation and would convert to a voice mail system with several options for citizens (including housing violations, water leaks, sewer problems, etc.) for the remainder of the time. For all non-emergencies, this system could forward messages to the appropriate departments. The City of Springfield is also in the process of discussing this type of hotline.

R10.17 Although the concept has been informally presented to council, it has not been formally acted upon. The City would benefit from a 24-hour hotline and a non-emergency voice mail system. The implementation of a 24-hour hotline has the potential to increase customer service in the housing code enforcement division by giving the division greater accessability to the citizens.

F10.32 Housing code inspectors are assigned to wards. Because there are seven wards and only five inspectors, two of the inspectors have two wards. They are responsible for inspecting all demolition and housing complaints. When a complaint comes into the department, the inspector goes to the site with a city housing inspection form to check off the pertinent violation. After assessing the violation, he returns to the bureau to look up the lot number in the computer.

This database describes the history of the lot and if any violations are outstanding. It also lists the name and address of the lot owner. From this information, the inspector sends out

a notice. When all notices for the day are dated and documented, he bundles the notice receipts together so that he can return to his records and determine which need follow-up inspections when that date arrives. For example, if a home owner was found in violation, the inspector would mail the home owner's inspection notice and give him 30 days (in most cases) to fix the violation. Bundled with the rest of the inspection receipts, the following month he has the ability, to go back to the residence of the offending party to make sure they are now in compliance.

If the home owner has not fixed the problem, the City sends out a 30 day notice of court summons. If the violation is not sufficiently addressed, the housing code enforcement division has the ability to take the property owner to court. The housing inspectors have the authority to cite property owners if the condition of the violation is severe. If the offender fails to comply after that 30 day period, they must go before the court and pay whatever fine is imposed.

F10.33 The assistant director of the CDA indicated that approximately five inspections are performed daily by each of the five inspectors for a total of 25 inspections daily. Each of the five inspectors investigates the complaints to determine if the situation warrants a notice requiring code compliance within 30 days. Each inspection takes approximately five minutes as most inspections are of a visual nature. They can be completed by simply looking at the exterior of a property and filling in the appropriate boxes on a checklist. However, the resulting research and ensuing paperwork fills the majority of the work day.

During the course of daily responsibilities, the inspectors make visual inspections in each ward, commonly referred to as "street sweeps" which could also lead to notices being served. Inspectors have street-specific maps that they are given at the beginning of each week in which they are charged with highlighting each street that they have swept for violations. At the end of the week, they are to turn in the street maps to let the chief see their progress. If they do find violations, the process described above commences.

F10.34 The division does not keep records of the notices it sends out, but the assistant director of the CDA roughly tracks the number of inspections through the use of a standard numbered form. The inspection form, implemented in 1997, is numbered in a series and gives the department the ability to determine the number of inspections completed annually. He has estimated that about 4,000 initial inspection forms have been sent out in 1999, but no accurate means of tracking actual numbers exists. Copies of the inspection form are archived and input into the computer system to determine the property owner in order for the original form to be mailed. However, the computers are only now beginning to be used, and the chief housing inspector has indicated that they are not being used effectively.

F10.35 Because the housing code inspection form has not been in place long enough to accurately report the number of inspections performed (**see F10.34**), the assistant director of the CDA could only provide estimates of inspections for the period from 1996-98. He indicated that 3,000 inspections were performed in 1996, 2,500 in 1997, and 6,000 in 1998, but could not provide verification of these estimates. Documentation of the notices and court summons were unavailable from the City.

R10.18 Although the housing code enforcement section has implemented an inspection form, the section must be proactive in archiving the information in its computer system. Accurate historical information regarding the number of housing inspections completed, the number of notices sent out, the number of violations issued and the number of violations brought into compliance annually does not exist due to the lack of documentary recording. For the inspection form to be effective, the housing code enforcement section must input this data into the computer system for any meaningful analysis to be undertaken. This database could be used to alert inspectors of upcoming reassessments, pending court actions and repeat offenders, thereby increasing operational effectiveness and customer service.

As indicated previously, the City of Springfield has implemented a telepad software system which has proven very beneficial to its housing code enforcement department. The City of Springfield has shown significant increases in the number of inspections completed as a result of the HTE telepad computer software system. In 1996, the City was able to perform 8,202 housing inspections. However in 1997, the City estimated it completed 9,500 with the use of the software system and completed them with one less employee. This represents a 16 percent increase from 1996 to 1997. Springfield officials found the system significantly aided the department's ability to document and track inspections ultimately increasing customer service. The City of Youngstown should perform a cost benefit analysis of the feasibility of implementing a pen-based or telepad inspection system similar to Springfield's (see financial implications in **R10.16**).

F10.36 **Table 10-15** illustrates that Youngstown has the second lowest ratio of housing units per inspector. Only the City of Canton exhibits a lower ratio. The City of Lorain's housing inspectors are all state certified building inspectors as well. Consequently, the building division has the ability to make spot checks and inspections for both housing violations and permit-driven inspections concurrently. Lorain's building department has increased efficiency by performing higher rates of street sweeping due to its ability to make both types of inspections.

Table 10-15: Housing Inspectors Ratios

	Youngstown	Canton	Lorain	Springfield	Group Avg
Number of Housing Inspectors	5	7	3	4	4.75
Number of Residential Lots	30,254	25,919	19,745	29,955	26,468
Residential Lots per Inspector	6,051	3,703	6,582	7,489	5,572

Source: County treasurer and auditor's offices; peer city engineering departments

The high number of inspectors per residential lot and the low number of inspections performed by each inspector in Youngstown raises questions as to whether the City is receiving the maximum productivity from this department. In addition, discussions with departmental personnel coupled with the lack of documentation regarding the housing code enforcement function, indicates that this division may not be completing their duties adequately.

R10.19 In addition to maintaining adequate documentation for inspections being completed, (see **R10.18**) the City should take steps to ensure full productivity of the housing code enforcement inspectors. For example, inspectors could be utilized for vacant lot inspections and search for projects that are being completed without proper permits. Additionally, housing code enforcement inspectors should be held accountable for their time through maintaining a time-log, which could assist with project management and ensure maximum productivity.

Further departmental efficiencies could be achieved by requiring current and future housing code inspectors also be certified building inspectors. Such a requirement would produce significant benefits in ensuring all required permit driven inspections are performed.

Organizational Issues

F10.37 **Table 10-16** represents the positions required of a building department by the Ohio Administrative Code. Currently, the plans examiner acts as the building official, but a large portion of these duties have been undertaken by the deputy director of public works due to the building official's part-time status.

Table 10-16: Bureau of Building Administrative Code-Required Positions

Positions	Responsibilities	Necessary Certification-Certification Period	City Employed or Contracted Out-Number of FTEs
Building Official	Administration of building department	Cert. As a Building Official- 3 years	City Employed- 0.5 FTE equivalent
Plans Examiner	Examines plans for compliance w/OBBC	Cert. As a Plans Examiner- 3 years	City Employed- included in Building Official's duties
Building Inspector	Determines compliance w/approved plans	Cert. As a building Inspector- 3 years	City Employed- 1.0 FTE equivalent
Mechanical Inspector	Determine compliance w/approved plans for HVAC systems	Cert. As a mechanical inspector- 3 years	City Employed- 0.5 FTE equivalent
Automatic Sprinkler Systems Inspector	Determine compliance w/approved plans for automatic sprinkler systems	Cert. As an automatic sprinkler inspector- indefinite	City Employed by Fire Department
Residential Inspector	Determine compliance w/approved plans for buildings and components of buildings	Cert. As a residential inspector- 3 years	City Employed- included in building inspector's duties
Plumbing Inspector	Enforces provisions of the Plumbing Code	Certificate of Competency ORC 3703.01- 3 years	Contracted Out to District Board of Health
Electrical Inspector	Enforces Electrical provisions of the OBBC	Certificate of Competency ORC 3783- 3 years	Contracted Out Central Inspection Bureau (CIB)

Source: Ohio Revised Code/ Ohio Administrative Code
OBBC - Ohio Basic Building Code
HVAC - Heating, ventilation and air conditioning

F10.38 The housing code enforcement section reports to the assistant director of CDA. The CDA is responsible for the procurement and disbursement of state and federal grants. Consequently, maintaining the current organizational structure in which the housing code inspectors report to the CDA may be inefficient. Furthermore, numerous citizens have

expressed frustration with locating the housing inspectors due to their absence from city hall. The facility in which the housing code inspectors are housed can only be accessed by a dirt road behind the street department, making it difficult to formally lodge a complaint.

Each of the peer cities has a centralized permits and inspections bureau which issues all permits city-wide, coordinates the zoning, permit, and inspection processes, and maintains databases with numerous performance indicators. The City of Youngstown issues permits from five different departments, while conducting inspections from three departments.

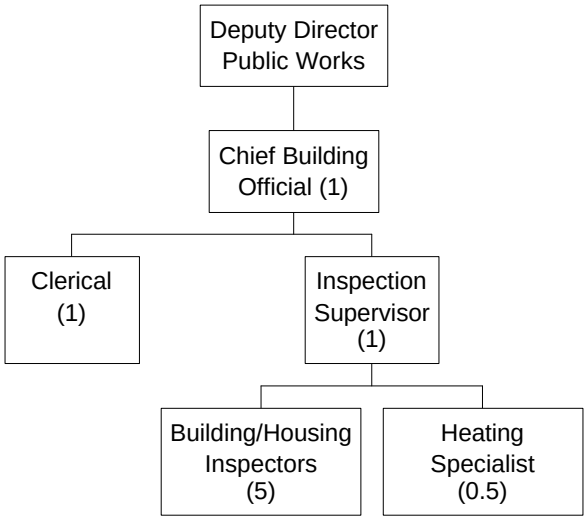
R10.20 The City should consider the possible efficiencies to be gained through a reorganization of the permit and inspection function. One possible reorganization is to bring all permit and inspection functions under one central division responsible for the entire process. Youngstown could use the peer cities of Lorain, Canton or Springfield, all of which have centralized building and housing departments, as possible models for a centralized division. Such a reorganization could potentially reduce the current level of organizational confusion associated with the housing inspectors reporting to the CDA without changing the funding structure. Additionally, a central department would promote better coordination between the existing permit desk and the departments ultimately responsible for issuing those permits and conducting corresponding inspections.

A full-time chief building official should be hired to provide overall management of the department while performing the duties currently being provided through the part-time plans examiner. This position should report directly to the Deputy Director of Public Works. Also, an inspection supervisor position should be established within the department. This position would be responsible for coordinating the activities of the various inspectors including: ensuring all required inspections are performed, monitoring the productivity of the inspectors, and ensuring proper documentation is maintained. Implementing the recommendation to have housing code inspectors be dual certified as building inspectors (**R10.19**) would greatly increase the flexibility the department would have in assigning inspectors and completing required inspections.

Fully utilizing the Franklin system (see **R10.8**) will allow the newly created department to maintain a central system for all permits and notices issued as well as inspections performed, and reduce the numerous clerical redundancies currently being performed. The elimination of these redundancies should allow the department to operate with one clerical position instead of the existing two positions. If additional clerical help is needed, the Deputy Director of Public Works should reassign the underutilized clerical position in the engineering department on a part-time basis (see **R10.4**)

Although hiring a full-time chief building official would cost the City approxiately $65,000 per year, the cost of creating this position would be offset by the reduction of the part-time plans examiner and one clerical position. **Chart 10-4** illustrates one restructuring option for the permit and inspection process.

Chart 10-4: Proposed Restructuring of Youngstown's Building and Housing Department



Financial Implications Summary

The following table summarizes the total estimated saving and implementation costs from the above recommendations. The City of Youngstown should consider the potential operational benefits which certain of the recommendations might affect.

Recommendation	Annual Additional Revenue	Annual Cost Savings	One-Time Implementation Costs
R10.3 Returning contracted services in-house		$254,141	
R10.4 Reduction of overtime		$7,061	
R10.5 Updating engineering technology			$9,700
R10.6 Instituting a licensing process for general contractors	$36,000		
R10.16 Implementing inspection software			$10,000
Total	**$36,000**	**$261,202**	**$19,700**

Conclusion Statement

The City of Youngstown's engineering department has been forced to utilize outside consultants for ninety percent of its design projects due to a potential lack of staffing within the department. Contracted services are much greater in Youngstown than the peer cities as a result of heavier reliance on consultants for the engineering services provided. The peer cities use engineering technicians, who are paid less than engineers, to perform the mandatory construction administration and inspection. Additionally, each of the peer cities employs a professional engineer who is responsible for approving the construction plans and design work undertaken by the City. Because the City of Youngstown only has two engineers, and no professional engineer or engineering technicians, it has been forced to wrap the duties associated with those functions into the contracted services. Consequently, the City's consulting costs are far greater than the peer cities.

The deputy director of public works has presented a proposal which gives the City the ability to bring 35 percent of the contracted services back in-house with the addition of four technicians to the department. In the proposal, the deputy director claims that the additional technicians will give the department the ability to administer and inspect its own construction projects, thereby decreasing the scope and cost of the contracts. Additional benefits include the ability of the engineers to perform spot inspections of streetcut, curbcut and sewer permits that are currently not being completed; enforcing contractor compliance with regulations directly (consultants do not have the ability to enforce regulations, they can only monitor and report); providing the opportunity for engineers to complete more design work as a result of the technicians' ability to perform other administrative tasks. The proposal has the potential to bring Youngstown into line with peer city practices, however quality and productivity issues must be examined by the deputy director to ensure that the City can produce high-caliber work at a more effective and efficient level than is currently being provided.

The permits and inspection process in the City of Youngstown does not appear to be organizationally efficient. The City is issuing fewer permits and conducting fewer inspections than the peer cities and the process does not seem to logically flow from zoning to permitting to inspections to demolition. Housing code enforcement (HCE) is located in the Community Development Agency (CDA) on the sole basis that the CDA is the enforcement section's funding source. The HCE has moved through city departments a number of times in the past fifteen years finally being contained in the CDA, which does not seem to have the ability to properly supervise the housing inspectors. The HCE should be moved to a consolidated permits and inspections department which would contain the zoning, building permit and inspection, housing code enforcement and demolition departments in one centralized location. While this merger would create a new position of an oversight capacity, redundant clerical functions could be eliminated and result in a potential reduction of one full time clerk. Current peer city practices confirm this approach as a viable method of solving the organizational problems present in the City.

Additionally, to provide residents of the City with better customer service, the department should fully utilize the technology it has available. The Franklin system purchased by the department has not been effectively used to generate permits, produce inspection notices and track all aspects of the building permit and inspection process. The City has not kept adequate records of permits issued, inspections made and code notices, violations and court summons. The Franklin system has the ability to track this information and should be used to its fullest potential. The City may also increase departmental efficiency by adding housing code software which allows inspectors to stay in the field and automatically download code violation information.

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Street Department

Introduction

This section focuses on the City of Youngstown street department (the department) and is divided into five areas: (A) General Issues, (B) Snow Removal and Ice Control, (C) Street Maintenance and Repairs, (D) Demolition of Condemned Structures and Site Clearance, and (E) Vacant Lot Management and Maintenance. The objective is to analyze each functional area and develop recommendations for improvements and efficiencies. Background information and findings are addressed in each area.

The street department was established by Sections 27 and 28 of the City of Youngstown Charter on May 15, 1923. Section 27 established the department of public works, which consists of the division of engineering, construction, maintenance, and repairs. Section 28 of the charter states that this division shall be in charge of a commissioner of engineering, who shall have charge of the construction, improvement, repair and maintenance of streets, sidewalks, alleys, lanes, bridges, viaducts, and other public highways.

As established by the City charter, the department falls under the authority of the public works department. In actuality, the public works director has limited involvement in the operations of the department. The department performs approximately nine different job functions, although the above constitute the majority of the costs incurred by the department. Two of the areas, demolition and vacant lots, generate revenue for the City. The functional areas performed by the department but not included in the report include street sweeping, guardrail repair, sidewalk and curb repair, litter control, and the maintenance of the federal plaza.

A. General Issues

Background

The City of Youngstown has experienced a significant decline in population since 1970. The decline is attributed to the closing of steel mills, egress to the suburbs, and rise of unemployment. Current staffing levels and the number of services provided have been affected by the City's economic decline. The decline has had a significant impact on the services provided by the street department especially in the growing number of condemned structures requiring demolition and number of vacant lots requiring maintenance. The following table shows the decline in the population of the City.

Table 11-1: Youngstown Population Statistics

Year	Population	Percent Change	Cumulative Change
1970	140,909	N/A	N/A
1980	115,511	(18.0)%	(18.0)%
1990	95,732	(17.1)%	(35.1)%
1998	84,650	(11.6)%	(46.7)%

Source: U.S. Census Bureau
Note: 1998 population are estimates based on building permits and other data.

Staffing is approximately one-third of the level thirty years ago, while population is almost half the level as thirty years ago. However, the service area that the department is responsible for has not changed. As a result, some services have been discontinued or completely contracted out and some services have been reduced in frequency of occurrence. In 1970, the department had approximately 170 full-time employees. One hundred and ten of the 170 employees were street department staff members and 60 were Comprehensive Employment and Training Act (CETA) employees working for the department. CETA, a federally funded program that provided funding to other governmental entities to pay for employees, vehicles, and equipment, was discontinued around 1980. Currently, the department uses Youngstown Employment and Training Commission (YETC) and court referrals to assist with litter control's community assistance program. The YETC was formed in response to CETA being discontinued. **Table 11-2** shows the current staffing level of 54 employees.

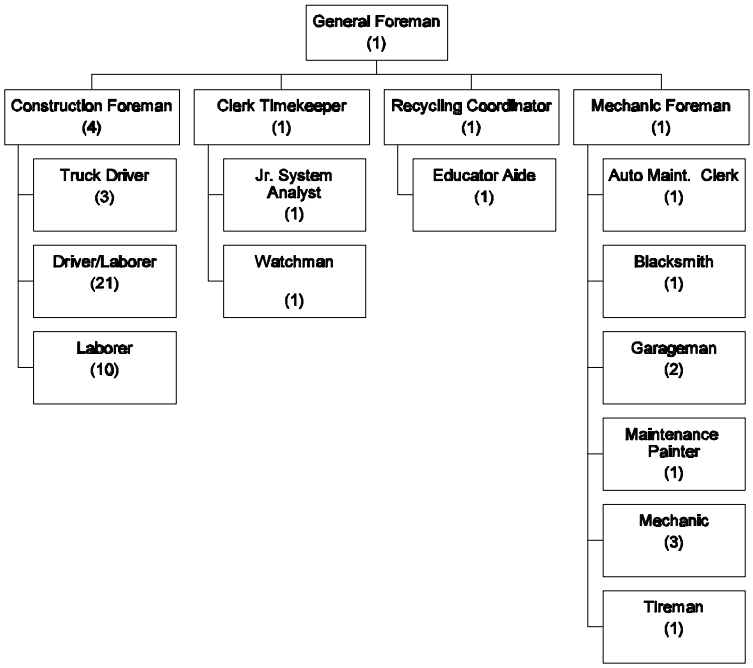
The population decline has had a significant impact on the services provided by the street department, especially with regards to the increases in condemned structures requiring demolition and in the number of vacant lots requiring maintenance. The department currently performs the demolition of condemned homes and maintains the vacant lots that result from demolitions. These two functions were not performed twenty-five years ago because there was not a need. The department currently has the same number of mowing units as they did twenty years ago, although there has been a drastic

increase in the number of vacant lots. The department began providing demolition services in 1993. Previously, the department performed resurfacing of roads and highways, painting of guardrails, installing of snow fences, and flushing of streets. Over time, these functions have been unattended to by the department. There were six crews that performed storm sewer repairs, as well as major curb and sidewalk repairs in-house. However, these functions are currently either contracted out or no longer provided.

Organization Chart

The street department is organized into four general parts – the garage, the office, the recycling program, and the general workforce. **Chart 11-1** provides an overview of the department's organizational structure and staffing levels. The general foreman is a classified employee and reports to the deputy director of public works. The deputy director is appointed by the mayor and serves at his pleasure.

Chart 11-1: Street Department



Organization Function

The primary responsibility of the street department is to provide general maintenance, repair, and cleaning of municipal streets, highways, and (public) property under City management or control. The most visible responsibilities provided by the department are outlined by the following services:

- Snow removal and ice control
- Street maintenance and repairs
- Demolition of condemned structures and site clearance
- Vacant lot management and maintenance
- Street sweeping
- Guardrail repair
- Sidewalk and curb repair
- Illegal dump-site cleaning and litter control
- Federal Plaza maintenance

Summary of Operations

The street department services the City of Youngstown which comprises 35 square-miles and is located in the northeastern part of Mahoning County. The City has approximately 904 lane miles of roads, highways, interstates and alleys or 418 center-lane miles. A lane mile is defined as the number of lanes times the number of miles it comprises, while a center lane mile is the number of miles of road measured from the center line. The department determines where to focus its resources through routine, visual inspections of city streets and neighborhoods by the department's foremen. In addition, the department is made aware of potential problems by receiving calls from citizens and other City departments.

The department is housed in the Teamster Drive facility. In addition to this location, the department uses the Barrett Cadillac Building on Wick Avenue to store snow and ice control vehicles in the spring and summer, and to store unneeded spring and summer equipment during the winter.

A majority of the department's work is reactive. The department addresses snow and ice conditions when the weather warrants, repairs guardrails when they are damaged, and repairs roads, sidewalks and curbs when identified. Some services are performed on a limited basis, while others are deemed major functions of the department.

Assignments for the department's general workforce are determined by the general foreman each morning. After a determination of the specific job functions to be performed that day, the general foreman establishes the number and size of crews needed to address the work. This information is documented onto a routine operations assignment sheet that is given to the construction foremen. The construction foremen then assign personnel for each job. Most job functions are performed by a crew

of two to four employees. Crews are assigned a truck or vehicle used to transport equipment and supplies to the location where the work is performed.

Staffing

Table 11-2 shows the full-time staffing levels of the department for calendar year 1998. The general foreman, construction foreman, mechanic foreman, junior systems analyst, clerk timekeeper, and recycling coordinator are not unionized. The watchman is part of the Teamsters' union, while the recycling educator aide is a member of the AFSCME union. The remaining employees are also part of the Teamsters' union.

Table 11-2: Number of Full Time Employees

Classification	FTEs
General Foreman	1
Construction Foreman	4
Clerk Timekeeper	1
Jr. System Analyst	1
Watchman	1
Recycling Coordinator	1
Educator Aide	1
Mechanic Foreman	1
Auto Maint. Clerk	1
Total Administration	**12**
Truck Driver	3
Driver/Laborer	21
Laborer	10
Total Construction	**34**
Blacksmith	1
Garageman	2
Maintenance Painter	1
Mechanic	3
Tireman	1
Total Mechanic	**8**
Total	**54**

Source: Youngstown Street Department

The department previously had 92 employees, but has since been reduced to 54 as indicated above. The department does not plan to fill the positions which are reflected as budgeted positions for the department. The following positions are currently not filled: paver mason (2); paver (4); heavy

equipment operator (15); truck driver (5); maintenance (1); laborer (5); watchman (3); mechanic foreman (2); and mechanic (3).

As noted in the previous paragraph, the department has many unfilled positions, but work is performed at the department that falls under the job descriptions of the unfilled positions. The department does not currently have any employees classified as heavy equipment operators. However, when an employee performs a job duty that has been classified in the job descriptions for a heavy equipment operator, the employee receives compensation at the rate of a heavy equipment operator instead of the worker's regular rate. Employees also receive a higher compensation by performing the job duties of a paver or paver mason. Neither position is currently filled, so when an employee works out of his job description to perform the paver or paver mason job duties, he will receive the greater rate of pay between his current salary and the salary for the job performed.

Financial Data

The following table details the FYs 1997 and 1998 actual expenditures and FY 1999 budgeted expenditures of the department. The financial data is for the street fund organizational codes for general administration, street cleaning/snow removal, demolition, and miscellaneous. The remaining organizational codes were excluded because they are either part of the traffic division expenditures or the engineering, permits, and inspections department expenditures. Wages were budgeted for a 23.6 percent increase in 1999 due to the general foreman requesting ten additional permanent full-time employees at an approximate cost of $180,000, however, the additional positions have not yet been filled. The remaining increase reflects contractual increases and a seven percent contingency increase for overtime and emergencies. Capital outlay was budgeted for a significant increase because delivery of slag trucks approved for purchase in 1998 was delayed to 1999. Therefore, the purchase was rolled over as an encumbered balance.

Table 11-3: Expenditures

Organizational Code Description	1997 Actual	1998 Actual	1999 Budgeted
Wages	$1,606,691	$1,547,249	$ 1,912,600
Benefits	985,555	1,054,622	1,105,150
Purchased Services	305,426	127,475	315,950
Supplies/Materials	404,111	256,603	327,100
Salt	163,410	191,183	250,000
Capital Outlay	327,916	17,925	505,000
Other	18,946	7,253	10,000
Total Street Fund	**$3,812,055**	**$3,202,311**	**$ 4,425,800**

Source: Detail Expense Ledger, Report 200.

Performance Measures

The following is a list of performance measures used to conduct the analysis of general department functions:

- Adequacy over the planning and allocating of available man hours to department functions
- Effectiveness and efficiency of management positions and staffing levels
- Assessment of staffing levels specific to vehicle and equipment maintenance and repair
- Effectiveness and efficiency of employees' scheduling
- Assessment of overtime
- Adequacy of documentation of employees' daily hours by job function
- Adequacy of documentation over individual project costs

Findings/Commendations/Recommendations

Planning

F11.1 The City of Youngstown street department does not create an annual planning schedule to estimate the workload for the upcoming year. No determination is made regarding the amount of time that should be allocated to a functional area in order to meet the estimated workload for the year. The department also does not estimate the potential amount of available man-hours in total or the time required to perform the various job functions for the year. The lack of time spent planning for services the department performs reduces the department's ability to justify funding or future department needs.

F11.2 The Ohio Department of Transportation (ODOT) prepares an annual work plan which estimates available man hours, prioritizes job functions of the department, and allocates the available man-hours to job functions to determine the volume of work that can be performed in the upcoming year. The plan is flexible enough to allow for the reactive services provided by the department. The annual work plan is tracked monthly through focus reports which set goals for minimum, average and outstanding standards.

The plan determines the number of available man hours by taking the number of staff members in each position and multiplying by 2,080 hours for the year. From the total available hours, direct productive time and indirect productive time are then calculated. Indirect productive time is calculated using a percentage of total available hours to allocate hours to items such as training, meetings, holidays, leave time, disability time and supervisory and clerical work. The remaining available hours are then allocated to direct productive time. Direct productive time allocates available hours to the main job functions of the department based on prioritization of functions.

R11.1 The department should create an annual planning schedule, such as ODOT's, that addresses the functions and responsibilities of the department for the upcoming year. The planning schedule should prioritize departmental functions and determine what needs to be accomplished given total productive man hours for the year. Total productive man-hours are the total number of hours employees will be working in the year, less holidays, estimated leave time and other downtime. Once a total has been estimated, the department can allocate man hours by job function to meet its predetermined, prioritized needs. The planning should also detail how and when various functions should be assigned and completed. An annual plan could allow the department to monitor more closely the progress of each job function. Also, on a monthly basis, actual financial information and current project progress could be projected and compared to the planning schedule. By creating a planning schedule, the department will be more pro-active in its approach to handling their departmental functions.

F11.3 The general foreman assists the finance officer in creating the department's estimated budget. In doing so, functions are not prioritized and the amount of resources necessary to provide the services is not determined. The estimated budget is prepared through review of the prior year's balances and verbal justification if proposed balances will vary substantially from prior year amounts. Most estimated balances reflect prior year's ending balances. No supporting documentation is produced during the department's budget process. The estimated budget is submitted to city council for the preparation of the City's yearly budget.

Youngstown's budgetary process is highly centralized. The budget is formulated from the top down, reflecting the priorities of the mayor and finance director. Budget decisions are made by the mayor, the finance director, and ultimately the city council. The budget is primarily built on financial projections and trends using historical information and contracted commitments rather than performance measures or the achievement of specified goals and objectives. Input from administrators and staff is limited, and while they have control in managing their allocations, they have minimal influence over the amount allocated.

R11.2 Youngstown should institute a more decentralized budgeting process which takes advantage of the knowledge departmental supervisors possess. Effective budgeting should flow upward from the lower levels of the City rather than being a function solely of the finance department. Upon developing its annual plan, the department will have identified the resources necessary to accomplish the department's activities.

The annual budget should be built upon operational unit performance plans rather than formulated centrally. Performance indicators should be incorporated in the budget requests. Resources should be allocated based on priorities, levels of service and standards of performance as set and approved in the strategic plan.

Department supervisors should be held accountable for performance throughout the year. To support this discipline, they should submit written reports to the mayor to explain monthly variances and describe progress made on their performance plans. Once a year, the results should be compiled, summarized and published. The reports should be made public through either the formal budget document or the annual financial report.

F11.4 The general foreman believes that the following functional areas are the most important services provided by the City (they have been ranked from most important to least important by the department): snow and ice control, street sweeping, street maintenance, vacant lot management, and demolition. All remaining functions are considered to be of equal importance under the top five functions. Snow and ice control is considered most important since the safety of citizens and drivers depends on the roads being clear and free from hazardous conditions. **Table 11-4** shows the estimated amount and percentage of time the department spent in each functional area for FY 1997. The hours documented as leave were not included in the table.

Table 11-4: Estimated Man-Hours by Functional Area for FY 1997

Area	Hours	Percentage of Total Hours
Snow & ice control	4,812	8.2%
Street sweeping	3,495	5.9%
Street maintenance	14,440	24.6%
Vacant lot management	3,975	6.8%
Demolition	9,171	15.6%
Litter & trash cleanup	6,903	11.8%
Garage, building, yard, or equipment/vehicle maintenance	3,287	5.6%
Guardrail & sidewalk repairs	3,279	5.6%
Miscellaneous job assignments and training	3,155	5.2%
Yardman	1,887	3.2%
Weldshop & forklift operator	619	1.1%
Ditching	428	0.7%
Mechanic & tireman	358	0.6%
Unknown/undocumented	2,988	5.1%
Totals	**58,764**	**100%**

Source: 1997 street department assignment sheets

F11.5 A concern noted during the compiling of the data for **Table 11-4** from the assignment sheets was the amount of hours in which employees were not documented as assigned to a specific job area and were not shown as taking leave time for the day. The total amount of time was 2,988 hours or 5.1 percent, as shown in the table as "Unknown/undocumented" area. See **R11.17**, on maintaining sufficient documentation to determine the actual job functions performed by each employee daily.

F11.6 The street department does not have standards for employee performance. In addition, the department has not developed performance measures to apply the standards. Accurate data collection, of which the City has not developed a system for compiling, is required before performance measures can be developed (see **R11.20** on a management information system).

R11.3 Performance measures should be developed to ascertain that services are being completed efficiently and effectively. The most common means for a street department to achieve its objectives is to set quantity standards for determining the amount of maintenance to be accomplished. Quantity standards establish the frequency or amount of effort needed to reach the desired service level. For example, five mowings per year per acre, or one-half ton of premix per lane mile.

Quantity standards establish measurable goals and objectives in terms of units of work to be completed and are often used to determine labor, equipment and materials needed. These resource requirements are calculated for each activity in the annual work program (see **R11.1**) and are used to calculate the performance budget (see **R11.2**) in terms of financial cost required to accomplish the work program. Quantity standards are not sufficient by themselves to ensure that maintenance work is accomplished at a rate or pace approximating the optimum. Quantity standards are normally incorporated into performance standards. A typical performance standard identifies the following:

- Proper size and designation of the crew
- Type and number of equipment units that should be used to carry out the activity
- Materials needed
- Step-by-step description of the procedures to carry out the work in the optimum time with the desired quality
- Expected average daily production
- Expected productivity rate in person-hours or crew hours per unit of work
- Criteria for scheduling

F11.7 **Table 11-5** compares the different services provided by the department with the services provided by the peer cities. The City of Youngstown has a separate department to perform street related services, whereas the City of Canton combines resources and personnel to perform street and sewer maintenance services. The other peer cities have separate street departments similar to Youngstown. For the City of Canton, services that are strictly sewer related are not included.

Table 11-5: Comparison of Services Performed

Type of Service/Job Function	Youngstown	Canton	Lorain	Springfield
Snow removal & ice control	Yes	Yes	Yes	Yes
Street maintenance & repairs	Yes	Yes	Yes	Yes
Seal street cracks	No	No	Yes	Yes
Demolition & site clearance	Yes	No[1]	No[1]	No[1]
Vacant lot management	Yes	Yes	Yes	No[1]
Mow right-of-ways	Yes	Yes	Yes	Yes
Street sweeping	Yes	Yes	Yes	No[1]
Guardrail repair	Yes	Yes	Yes	Yes
Sidewalk & curb repair	Yes	No[2]	Yes	Yes
Litter control & recycling	Yes	Yes	No[1]	Yes
Tree and branch removal	Yes	Yes	Yes	Yes
Ditching	Yes	No[2]	Yes	No[2]
Leaf removal	No	Yes	Yes	No
Grade & level alleys	Yes	No	Yes	Yes
Respond to emergency hazards, set-up detours, & traffic control	Yes	No[2]	No[2]	Yes
Basin repair	No[2]	Yes	Yes	No[2]

Source: Youngstown - street department general foreman; Canton - street department superintendent; Lorain - street department commissioner; Springfield - public works director

[1] Service is contracted out

[2] Service is performed by another department of the City

F11.8 The department performs the demolition of vacant, uninhabitable structures within the City. The three peer cities utilize outside contractors to provide this service. The volume of structures requiring demolition in Youngstown is significantly higher than in the peer cities. (See **demolition** section for more details).

The department differs from the peer cities in that it does not perform crack sealing of roads. Crack sealing is considered a separate function from street maintenance. It requires special material and equipment. The department has two patch mobiles that are used in repairing potholes by dispensing a hot patch filler. The patch mobiles are not designed specifically for crack sealing, although the general foreman indicated the machine could possibly be used to do so (see **street maintenance** section for more details).

Departmental Operations

F11.9 The department operates under one shift during the spring, summer and fall from 7 a.m. to 3 p.m., Monday through Friday. Work performed after this shift or on the weekend is considered overtime for which employees are compensated at time and one-half. During the winter months, from approximately December 1 through March 15, the department operates in two shifts. One half of the department's drivers and mechanics and all laborers remain on the day shift, and one half of the drivers and mechanics work a midnight shift from 11 p.m. to 7 a.m. See **Table 11-18** (in the **snow and ice** section). Using two shifts is an attempt to more efficiently handle snow and ice conditions. When the weather becomes severe, the shifts are extended to 12 hours if needed. The day shift works over four hours until 7 p.m., while the midnight shift comes in four hours early at 7 p.m.

F11.10 Each morning, all employees report to the Teamster Drive facility to clock-in. After clocking in, the bidding for jobs, as discussed in **F11.14**, is performed. Most job functions are performed by a crew of two to five workers. At the end of the day, workers either complete the assigned task or clean-up and leave the job site early. Workers may return to the facility no earlier than 2:30 p.m. This allows enough time to return to the street department facility to clean and perform any maintenance on the equipment used to be ready for the next day. Workers can also clean up at this time and clock-out for the day.

The above practice is consistent with the peer cities. Each city requires employees to meet at the street department or public works facility initially in the morning to receive job assignments and necessary equipment. Employees must also return to the facility at the end of the work day to clock out. None of the peer cities allow employees to report directly to a work site or to leave directly from a work site at the end of the day to return home.

F11.11 As a result of the street department scheduling process discussed in **F11.14** as well as employees receiving paid lunches and two ten minute breaks during the day, the number of productive work hours in an eight-hour day has been diminished to less than six hours per day. The department is incurring approximately 8,800 lost man-hours each year. A breakdown of productive hours per day is as follows:

Table 11-6: Productive Work Hours

Description	Time Period	Productive Time
Employees arrive at street dept, get assignment, get necessary equipment, and take street dept vehicle/equipment to work destination	7 - 7:40	0 minutes
Employees work until first 10 min. break	7:40 - 9	80 mins.
Employees work until lunch break (½ hr.)	9:10 - 11	110 mins.
Employees work until 2nd 10 min. break	11:30 - 1	90 mins.
Employees work until they are authorized to return to the street dept.	1:10 - 2:20	70 mins.
Employees return to the department to return, clean, and get ready for the next day, any equipment they used. Employees also clean themselves at this time.	2:20 - 3	0 mins.
Subtotal		350 minutes
Total productive hours of each employee (per day)		**5 hours 50 minutes**

Source: Inquiry and observation at the department

F11.12 **Table 11-7** compares the daily amount of productive work hours of the department to the street departments of the peer cities.

Table 11-7: Peer City Productive Work Hours Comparison

	Youngstown	Canton	Lorain	Springfield
Length of workday	8 hours	8 hours	8 hours	8 hours
Daily Scheduling Downtime	30 minutes	N/A	N/A	N/A
Included or Excluded Lunch Period (30 minutes)	Included	Excluded	Excluded	Excluded
Number of Breaks **Length**	2 10 minutes each	2 15 minutes each	2 15 minutes each	2 15 minutes each
Daily drive time to and from work site	2 10 minutes each	2 10 minutes each	2 10 minutes each	2 10 minutes each
Length of time allowed at the end of the work day for clean up	30 minutes	30 minutes	30 minutes	30 minutes
Estimated Productive Work Hours per Day	5 hours 50 minutes	6 hours 40 minutes	6 hours 40 minutes	6 hours 40 minutes

Source: City of Youngstown and peer city collective bargaining agreements and street departments

F11.13 The labor contract under which the street department workforce are covered, the International Brotherhood of Chauffeurs, Teamsters, Warehousemen, and Helpers, Local 377, does not require normal job assignments to be scheduled based on seniority.

The labor contract specifies a work day of eight consecutive hours, which includes a lunch break. This contributes to the lack of productive hours being worked by the department employees by one-half hour each day for each employee. The peer cities, in contrast, exclude the 30 minute lunch period from the eight hour work day. Overall, the department records fewer productive hours when compared to the peer cities as a result of a total of one hour of non-productive time included in the eight hour work day.

F11.14 The street department general foreman determines job functions and the number of workers required to perform the jobs each morning. This information is documented onto a routine operations assignment sheet which is given to the construction foremen. The construction foremen fill in specific personnel for each job in the following manner: the employee with the highest seniority is given first selection of any job duty for that day. After his selection, the employee with the next highest seniority is given the next choice at a job. This process continues by seniority until everyone has a job assignment for the day. By utilizing this time-consuming method, one-half hour of down time each day is accumulated by every street department employee.

The department attempted to implement semi-permanent crews at the end of the split scheduling in 1999. The scheduling process remained in place for about one month, but had several grievances filed. The union claimed the new process was in violation of seniority rights. The new process allowed the employees to choose their job assignments, but the assignment would remain in place for several weeks as opposed to one day. The union believed they should keep their seniority right to choose a job daily. The City and union participated in an informal negotiation whereby the City agreed to allow the union daily bidding if the union could improve the efficiency of the process and reduce the nonproductive time. The general foreman anticipates returning to the process because the union has not reduced the nonproductive time.

R11.4 The City should increase the number of productive hours worked by department employees. The City should implement biweekly or monthly job assignment schedules. The schedule would assign employees to a job function or a specific work crew for that period of time. This would eliminate the downtime currently incurred by the department's daily bidding process. The street department should not use seniority to determine employee assignments. The current process also prohibits the foremen from being able to make job assignments based on the experience and effectiveness. Empowering foremen to schedule job assignments may increase the probability that the most qualified and experienced worker will be assigned to the appropriate job. Scheduling of assignments should be made to address those goals presented in an annual plan of the department.

An alternative method is used at Springfield. Established through the bidding of jobs, crews are put together for the winter schedule and again in the spring. Once a crew is established, it remains the same. Each morning, crews are given their assignment for the day.

One of the most effective operational models can be found at ODOT operating under a biweekly job scheduling process. Management establishes a schedule of jobs to be performed for the two week period. Workers are assigned to a specific crew for the two-week period by a facility supervisor. Assignments do not consider the seniority of workers. The schedule reflects the assignments of each crew for every day of the two week period. Therefore, crews are aware of assignments for the next two weeks and do not have to wait for an assignment each morning. The biweekly job schedule eliminates the downtime associated with the bidding of jobs and work crews waiting to receive job assignments daily.

Financial Implication: As shown in **Table 11-7**, the department is losing productive work hours through the current scheduling process. Based upon the number of construction employees and the hourly rates for these employees, the current scheduling process results in the department realizing wages for unproductive time in the amount of $40,625 (see **Table 11-8**). While the elimination of the current scheduling process will not result in annual cost savings, it will benefit the department through increased productivity.

R11.5 To further increase employee productivity, the City should pursue eliminating paid lunch breaks during the next round of union negotiations. This benefit is not currently extended to other unionized departments within the City or the street departments in the peer cities.

Financial Implication: **Table 11-8** illustrates the resultant financial implication from **Table 11-7**. The scheduling downtime and lunch break columns are based on 209 productive work days, and one-half hour each day. Given 260 available work days annually, a factor of 80 percent was applied to estimate employee leave time to arrive at 209 productive work days annually. As shown in **Table 11-8**, the department incurred $70,047 in costs related to the paid lunch benefit extended to the employees. While the elimination of this benefit will not result in annual cost savings, it will benefit the department through increased productivity.

Table 11-8: Cost of Lost Man-Hours

Classification	Number of Staff	Scheduling Downtime	Lunch Break	Total Cost
Administration	12	N/A	$18,793	$18,793
Construction	32	$40,625	40,625	81,250
Garage	8	N/A	10,629	10,629
Totals	**52**	**$40,625**	**$70,047**	**$110,672**

Source: Youngstown street department

F11.15 The general foreman is the highest administrative position at the street department and is responsible for its overall operation. The general foreman is a classified, tested position within the department and reports to the deputy director of public works. The general foreman is required to provide administrative, supervisory and technical support to all department employees including the construction foremen, the maintenance and garage workers, the clerical employees and the recycling program. Specific job duties include prioritization and planning of daily work assignments, supervision of foremen, assessment of vehicles, equipment and tools, and assignment of departmental needs. He also retains necessary records, prepares reports, attends periodical meetings as required by City management, investigates citizen complaints, and enforces a safety program throughout the department.

Each of the peer cities has a position similar to the department's general foreman position. Common responsibilities of peer general foremen include providing supervisory and technical support to employees, planning daily work assignments, maintaining of records, keeping abreast of citizen complaints, prioritization of future job functions, and maintaining labor relations with employees. The peer cities' general foremen positions are not responsible for administrative duties which fall to a department administrator. The City of Youngstown does not have a higher administrative level. The department had a street department superintendent that served this role in the past, but the position has been unfilled for several years. There does not appear to be any motivation by the City to fill the position.

F11.16 There are currently four construction foremen at the street department who report to the general foreman. They provide supervisory support to those employees referred to as the "work force" who are responsible for performing City or street maintenance, repairs, or minor construction and demolition. In general, construction foremen job duties include scheduling of daily work assignments, on-the-job supervision and technical training of workers, accountability of equipment and tools used daily, observation of safety guidelines, and the generation of daily timesheets. Construction foremen are only required to participate in a limited number of the activities performed by the work force.

Some foremen have been assigned responsibility for a specific functional area, such as demolition or street sweeping. In general, they spend most of their time at the department facility rather than out in the field providing on the job supervision. Presently, the productivity of construction foremen is not monitored, nor are they required to meet any set guidelines or completion deadlines. Instead, the status of work assignments are made verbally to the general foreman.

R11.6 The City should consider a reorganization of the streets department to improve the management structure and to increase the productivity of current employees. The current organization of the department allows for the following inefficiencies:

- **!** poor employee productivity and inefficient workload distribution
- **!** differences between current job duties and those duties intended when the position was created
- **!** lack of managerial responsibility for departmental performance.

One possible reorganization structure is proposed below.

The general foreman should remain the highest administrative position in the department and should be responsible for the management of the entire department. Reporting to the general foreman should be an office manager, mechanic foreman, the recycling coordinator and the streets foreman. Each of these positions should be held directly responsible for their respective function.

As opposed to the various office personnel currently reporting individually to the general foreman, an office manager's position should be established. This position should be responsible for the overall operation of the department's office including: payroll, clerical staff, management systems, procurement, personnel files, billing functions and the activities of the watchman. As the duties of the system analyst are not clearly defined and the current system analyst does not seem to have the qualifications needed to develop and maintain adequate automated systems, this position should be eliminated. Elimination of the system analyst position would keep the proposed office staff at the current levels even with the proposed creation of an office manager's position.

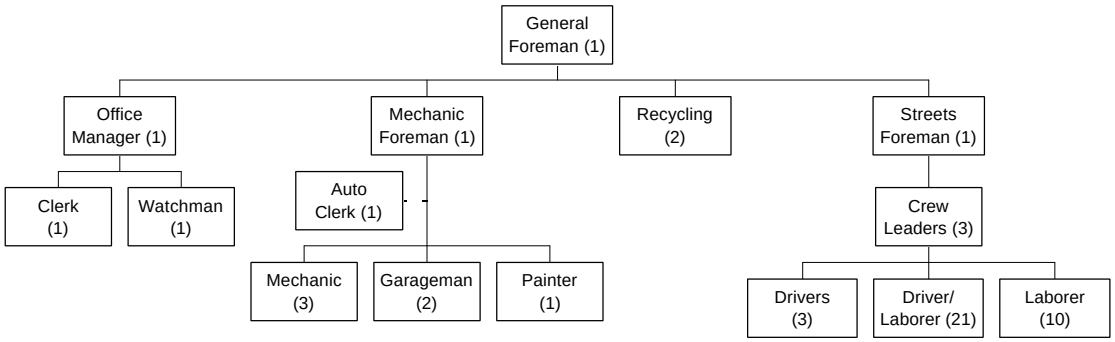
The activities of the streets function would be brought under one non-union supervisor, the streets foreman, instead of the current four foremen. This position should be responsible for the day-to-day operations of the streets crew including: assigning staff to the various functions, ensuring applicable functions are adequately addressed, monitoring the productivity of work crews and ensuring adequate documentation is maintained regarding the work performed.

The direct supervision of the work force would be provided through newly created crew leader positions. These positions would be responsible for the daily work assigned to the individual crews as well as providing on-site supervision. In addition to the supervision duties, crew leaders would also perform actual job duties and their productivity would be measured in the same manner as any other work force employee. The number of crew leader positions needed should be determined by the number of crews the department deploys on a daily basis. The reorganization chart presented below indicates three crew leader positions to correspond with the three foremen positions which would be eliminated. Further crew leader positions would be filled by appropriate personnel from the existing employees. While the proposed organization of the department changes the actual responsibilities of certain positions, the total number of staff positions does not change.

While a reorganization of the department will require negotiation with the union, such a change could increase employee productivity, enhance accountability, improve supervision and increase levels of responsibility for some positions within the department.

Financial Implications: While the reorganization proposed does not involve increasing the number of positions within the streets department, the salaries established for the new positions proposed will have financial implications associated with them. As these salaries will be based on the City's ability to negotiate with the union, an accurate financial implication could not be determined. This recommendation does not address the necessity of certain positions within the garage function. These positions are discussed in **R11.16**.

Chart 11-2: Proposed Reorganization of the Streets Department



F11.17 Currently, the street department is the only department entering time and attendance information into the key master application (see **payroll** for more information). An assignment sheet is completed to show the job function and daily work location of the employees. The time clock cards and the assignment sheet data are summarized onto a daily time report by the construction foremen and then forwarded to the departmental payroll clerk for data entry. After all data has been entered, an audit report showing the data input is generated by the computer services department and provided to the departmental payroll clerk. Although the data is entered daily by the clerk, the audit report is only printed at the end of the payroll cycle. In addition, the payroll clerk picks up the report from the finance department because the street department does not currently have local printing capability with respect to the key master application. If the payroll clerk makes adjustments to the payroll data, another audit report is generated which she has to pick up at the finance department. This process is repeated until all data entry errors have been resolved. According to the computer services director, additional hardware and programming would be required to provide local printing capability.

R11.7 The City should provide the street department payroll clerk with local printing capability. This should allow the payroll clerk to print audit reports locally on a daily or as needed basis, without having to wait until the end of the payroll period and would enable the payroll clerk to review the payroll shortly after the data had been entered, allowing for detection and correction of errors in a timely manner. In addition, the departmental payroll clerk could be more productive because she would not have to repeatedly travel to the finance department, located at city hall, to pick up the audit reports.

Staffing Issues

F11.18 **Table 11-9** presents the current staffing levels of Youngstown and the peer cities street departments by job title. Job titles reflect those utilized by the Youngstown street department. Although, peer city titles may differ, an attempt has been made to group job functions consistent with the City of Youngstown's job titles.

During the budgeting process for 1999, the general foreman requested ten additional permanent full-time employees at an approximate cost of $180,000 in wages only. The benefits for these additional employee could add an additional $72,000 in annual operating costs. The budgeted amount was approved, but the mayor has not yet approved the hiring of employees to these proposed positions.

This performance audit has identified a number of issues regarding the performance and productivity of current street department personnel which, when addressed, could significantly affect the need for these additional positions.

Table 11-9: Street Department Staffing Level Comparison

Job Title	Youngstown	Canton	Lorain	Springfield
Commissioner	-	-	1	-
Superintendent	-	1	1	-
General Foreman	1	3	-	1
Construction Foreman	4	-	5	-
Clerk Supervisor	-	1	-	-
Clerk/Timekeeper	1	2	1	-
Jr. System Analyst	1	-	-	-
P.R. Coordinator & Projects Specialist	-	1	-	-
Recycling/litter control	2	-	-	-
Fleet Maintenance Superintendent	-	-	1	-
Mechanic Foreman	1	-	1	-
Auto Maint. Clerk	1	-	2	-
Equipment Storekeeper	-	2	-	-
Watchman	1	-	-	-
Total Administration	**12**	**10**	**12**	**1**
Heavy Equipment Operator	-	10	2	1
Truck Driver	3	15	-	4
Driver/Laborer	21	28	18	12
Laborer	10	5	3	5
Total Construction	**34**	**58**	**23**	**22**
Blacksmith	1	-	-	-
Garageman	2	-	-	-
Maintenance Painter	1	-	1	-
Mechanic	3	-	7	-
Tireman	1	-	-	-
Total Mechanic	**8**	**0**	**8**	**0**
Total Staffing Level	**54**	**68**	**43**	**23**

Source: Youngstown - **Table 11-2**; Canton & Lorain - correspondence of management; Springfield - 1998 Appropriations Budget

F11.19 The City of Canton has a combined street and sewer maintenance department. The total staffing level of 68 employees from **Table 11-9** reflects the combined level. Employees, vehicles and equipment are not limited to one area but may be utilized for all departmental purposes. The City of Springfield's street department is similar to Youngstown's street

department in that it also falls under the authority of the public works division. The Springfield public works division also oversees the traffic control, forestry, fleet maintenance, and administration departments. Springfield's administration department includes four employees that perform clerical duties for all public works departments. **Table 11-9** reflects Springfield's street department staff only. The City of Lorain's street department comes under the authority of the director of public safety and service, which oversees fourteen different departments including police, fire, engineering, community development and the city garage.

F11.20 **Table 11-10** shows the current hourly rates of the City and the peer cities by job title. Job titles reflect those utilized by the Youngstown street department. Although peer city titles may differ, an attempt has been made to group job functions consistent with the City of Youngstown's job titles.

During union negotiations, the City agreed to pick up half of the employees retirement (PERS) contribution in 1998, a wage increase in 1999, and to pick up the remaining half of the PERS contribution in 2000. This contribution was calculated into the hourly base rates for Youngstown to equitably compare compensation rates. The City of Canton contributes the full employees share of PERS and base salaries are also adjusted. The wage comparison indicates that the workforce of Youngstown is not compensated as well as the peer cities workforce. Although the base rates are lower for this comparison, the rates will be more in line with the peer cities in 2000 once the City of Youngstown contributes the employees full share of PERS.

Table 11-10: Salary Comparison

Job Title	Youngstown[1]	Canton[2]	Lorain	Springfield
Commissioner	$ -	$ -	$ 29.28	$ -
Superintendent	-	32.07	21.87	-
General Foreman	23.34	23.64	-	18.85
Construction Foreman	16.42	-	17.60	-
Clerk Supervisor	-	17.54	-	-
Clerk/Timekeeper	13.62	12.52*	13.26*	-
Jr. System Analyst	15.55	-	-	-
P.R. Coordinator & Projects Specialist	-	15.60	-	-
Recycling Coordinator	14.58	-	-	-
Educator Aide	12.73	-	-	-
Fleet Maintenance Superintendent	-	-	23.47	-
Mechanic Foreman	16.42	-	17.60	15.20
Auto Maint. Clerk	12.90	-	14.58*	-
Watchman	12.67	-	-	-
Heavy Equipment Operator	-	15.71	17.08	15.13
Truck Driver	12.80	14.81	-	14.20
Driver/Laborer	12.80	14.27	15.60	11.35
Laborer	12.36	13.83	11.75	13.67
Equipment Storekeeper	-	14.26*	-	-
Blacksmith	13.49	-	-	-
Garageman	12.64	-	-	-
Maintenance Painter	14.20	-	17.60	-
Mechanic	13.34	-	16.01*	14.07
Tireman	13.04	-	-	-

Sources: Youngstown - public works salary schedule; Canton/Lorain - correspondence of management;
Springfield - union agreement

Note: (*) - represents the average of more than one salary for that position

[1] The City of Youngstown contributes half of the employees share of PERS. The base salaries are adjusted by a .0425 factor to equalize pay rates.

[2] The City of Canton contributes the full amount of the employees share of PERS. The base salaries are adjusted by a .085 factor to equalize pay rates.

F11.21 The job titles of truck driver and driver/laborer are paid the same hourly wage, as shown in **Table 11-10**. Both positions are covered under one job description, but the department considers them distinct positions. The job descriptions were combined in effort to simplify the department's job classification scheme. In the reorganization, the department kept several job titles (heavy equipment operator, paver mason, and paver) which are no longer filled. Employees are eligible for increased rates, however, when performing tasks in these classifications.

Youngstown has job descriptions on file for all departmental positions. However, the dates of issue or last edit ranged from the early 1980s to 1997. Many of the job descriptions are outdated and lack legal detail. The civil service commission is required to keep job descriptions on file and base promotional and new hire exams on them. According to the civil service commissioner, job descriptions are typically updated when a department needs to test for a position.

R11.8 The department should consider negotiations with the union to update job descriptions and job positions to reflect the current workforce. Job descriptions should include existing functions and ensure compliance with the American with Disabilities Act (ADA), enacted in 1990. Updated job descriptions are critical for the following reasons:

- Articulating job content to employees and supervisors
- Establishing individual performance expectations
- Providing criteria for recruitment and selection
- Avoiding legal liability - job descriptions should be appropriate and legally defensible
- Utilizing as a career ladder tool

Job descriptions should be updated either internally or by a professional management consulting firm. An update of current job classifications will provide the foundation for establishing internal equity and external competitiveness with respect to the wide array of job positions. The following issues can be more clearly defined by updating job descriptions:

- Basic pay policies
- Relation between compensation and organizational value
- Raises and adjustments
- Overtime and premium pay
- Entry level compensation

In addition to updating job descriptions to adapt to a changing environment, the department must be cognizant of the required compliance with ADA requirements and must include the following types of information:

- Job title
- Salary information
- Job summary
- Specific responsibilities
- Primary interactions
- Budget and asset responsibilities
- Equipment operations requirements
- Level of decision making
- Knowledge/skills/abilities requirements
- Qualifying education, training and experience
- Special job requirements

F11.22 The street department expends a significant amount for overtime each year. The following table shows overtime as a percentage of personal services. The current mayor implemented a reduction of overtime policy for all departments. Each department was required to eliminate discretionary overtime. Discretionary overtime affected all functions of the street department except snow and ice control which is considered emergency overtime. The policy appears to be the contributing factor to the significant reduction (76.5 percent) in overtime between 1997 and 1998.

Table 11-11: Street Department Overtime as a Percentage of Personal Services

Fiscal Year	Personal Services	Annual Overtime Costs	Overtime as a Percent of Salaries
1996	$1,621,562	$205,533	12.7%
1997	$1,572,020	$387,495	24.6%
1998	$1,509,856	$91,015	6.0%

Source: Youngstown finance department Report 200. Street fund general administration and street cleaning/snow removal organizational codes only.

F11.23 Each function of the department receives some overtime. An estimate for 1997 of the number of hours spent on overtime for each function is shown in the following table. Based upon the percent of time spent for each function and the actual overtime expenditure in 1997, the cost of overtime by function was determined as shown in **Table 11-12**.

Table 11-12: Cost of Overtime by Function 1997

Function	Hours Spent on Overtime	Estimated Overtime Cost
Snow and ice control	2,006.0	$101,136
Demolition	2,252.5	113,536
Street maintenance	893.0	44,950
Vacant lots	1,315.0	66,262
Other	1,215.0	61,611
Total	**7,681.5**	**$387,495**

Source: Street department Daily Assignment Sheets
Note: See **F11.5** - estimate of hours

F11.24 Although Youngstown has reduced overtime expenditures by 76.5 percent between 1997 and 1998, it still exhibited the second highest percentage of overtime when compared to its peers. The street department expended 6.0 percent of its personal services on overtime in 1998, a significant reduction from 1997 when almost a quarter of personal services expenditures was overtime. **Table 11-13** shows the peer comparison of overtime as a percentage of personal services for FY 1998.

Table 11-13: Peer Comparison Overtime as a Percentage of Personal Services Expenditures

City of:	Personal Services	Overtime	Overtime as a Percentage of Salaries
Youngstown	$1,509,856	$91,015	6.0%
Canton	$1,503,370	$102,467	6.8%
Lorain	$941,991	$35,970	3.8%
Springfield	$587,023	$5,205	0.9%

Source: Finance department of Youngstown and peer cities.

F11.25 Overtime is accrued at one and one-half times the employee's hourly rate for time worked in excess of eight hours in a 24 hour period, or in excess of 40 hours in a 7 day period. This has been interpreted to accrue overtime in a week for all hours in excess of 40 hours which are on payroll. Consequently, leave hours are counted towards the 40 hours in a 7 day period.

R11.9 The streets department could realize cost savings if it were to negotiated and implement an overtime policy which was more in line with the guidelines set forth by FLSA. For additional discussion on this issue see **R2.4** in the **Employee Related Issues** section of this performance audit.

F11.26 According to the general foreman, the department does not have many working days when a full crew is present due to vacation, sick, or personal leave. Scheduling of employees has made operational efficiency difficult because, for example, a demolition crew must consist of five employees of which one must be a heavy equipment operator. The department only staffs one demolition crew, and only has three employees qualified as heavy equipment operators. Attempting to schedule crews for the various tasks is impacted when one of the employees is not working because a priority function's crew will need to supplement its crew with another crew's employees.

F11.27 The union contract states that sick leave is accumulated at 1.25 days per month not to exceed 15 days in a year. **Table 2-5** shows the average number of sick days taken per employee by department. When compared to the other nineteen departments, the department has the second highest average number of sick days taken per employee at 11.70 days. Only waste water had a higher average of 11.71 days. The average for the nineteen departments was 8.27 sick days taken per employee. High sick leave usage may lead to excessive overtime hours for the department to complete its daily work load.

R11.10 The department should develop adequate procedures to control employee leave usage. The contract provides an absence control policy and a cash incentive program. The absence control policy requires employees to maintain 120 hours of accrued sick leave. The cash incentive is for non-use of sick leave in a six-month period. If an employee does not use sick leave for either half of the year, the employee is entitled to receive a cash payment of approximately $183. See **F2.12** through **F2.15** and **R2.5** in the **employee related issues** section of this report for additional information on the cash incentive program.

The City of Youngstown should promote the use of the cash incentive programs for sick leave. Although sick leave incentives may prove costly, it may be beneficial for the department to retain a modified form of the sick leave incentive. When promoting cash incentives, the City should strictly monitor and enforce the absence control policy. The City may be able to further reduce overtime expenditures by encouraging employees to work more days each year and reduce the use of sick leave. The financial implication associated with reducing sick leave is presented in **R2.2** of the **employee related issues** section of this report.

F11.28 In addition to sick leave, employees are entitled to vacation leave after one year of service. The following table provides a comparison between the peer cities regarding vacation time allocated for years of service.

Table 11-14: Peer City Comparison of Vacation Benefits

Years of Service	Youngstown	Canton	Lorain	Springfield
After 1 year of service:	2 weeks	1 week	2 weeks	1 week
After 5 years of service:	3 weeks	3 weeks	2 weeks	3 weeks & 1 day
After 11 years of service:	4 weeks	4 weeks	3 weeks	3 weeks & 3 days
After 17 years of service:	5 weeks	5 weeks	4 weeks	4 weeks & 1 day
After 23 years of service:	6 weeks	6 weeks	5 weeks	4 weeks & 3 days
Maximum/years of service	6 weeks/23 years	6 weeks/ 21 years	5 weeks/ 30 years	5 weeks & 3 days/ 30 years

Source: Teamsters' union contract

The vacation leave policy is a use it or lose it policy. All employees must use accrued vacation time within the year or lose it. The union contract allows an employee to liquidate the vacation time into a cash payment, but a decision by the law department retracted the policy. The law department decision stated, "[t]he City does not permit such a liquidation under its vacation policy. Vacation leave must be taken as time off work, not as a cash benefit."

F11.29 Employees must request leave one day prior to taking it. A doctor's excuse is required if more than two days of sick leave is taken. The use of sick leave is also monitored for patterns of abuse. Abuse would include consistent sick leave the day before or after a holiday, the weekend, or the same day each week. If reporting off for the day, an employee must report off at least one hour prior to starting time. If reporting off occurs after this time, the employee will not be paid for the day. The policy has been interpreted for employees to call off prior to 6:30 a.m., but exceptions are allowed. If a sufficient excuse is made, the employee may take vacation leave from the time of the call, but not for the entire day.

R11.11 Given the high incidence of sick leave, the street department should begin strictly enforcing its policies concerning leave. The department does not document when these exceptions to call off are used which means the financial impact can not be determined.

F11.30 The street department's garage staff consists of three mechanics, two garagemen, one painter, one tireman, and one blacksmith. The three mechanics are not Automotive Service Excellence (A.S.E.) certified. The mechanics are assisted by the garagemen and the other positions are specialized in the job tasks indicated by the job titles.

F11.31 The City of Youngstown street department uses its own workforce to maintain and repair departmental vehicles and equipment. Although **Table 11-9** shows eight employees designated as the garage staff, the total staffing level is ten including the mechanic foreman and the auto maintenance clerk. Each of the peer cities has a centralized garage to perform city-wide maintenance on all vehicles and equipment. The table below shows the staffing of vehicle and equipment maintenance for Youngstown and the peer cities. The City of Youngstown has the worst operating ratios in staffing for vehicles and equipment to garage employees when compared to the peer cities. Low operating ratios drive up the costs of the street department.

Table 11-15: Staffing of Vehicle and Equipment Maintenance Comparison

	Youngstown		Canton	Lorain	Springfield	Peer Average (using city-wide)
	Streets	City-Wide				
Current staffing level	10	25.5	21	11	9	16.6
Number of vehicles and equipment maintained	96	489	412	273	526	425
Average number of vehicles & equipment maintained per employee	9.6	19.2	19.6	24.8	58.4	25.6

Source: Street departments & garage superintendents

F11.32 The City of Youngstown does not have a centralized garage to perform maintenance and repairs on City owned vehicles and equipment. Instead, maintenance and repair responsibility remains with each department. Most departments only have a limited number of vehicles and equipment and have selected outside contractors to perform the repairs. However, **Table 11-16** shows the departments that have hired staff and provided tools and the necessary facilities to perform the maintenance in-house. The City of Youngstown has 25.5 full-time equivalent employees to perform vehicle and equipment maintenance over the six departments. The average number of vehicles and pieces of equipment serviced by the staff in those departments is 19.2. This ratio is low when compared to the peer city average of 25.6 shown in **Table 11-15**.

Table 11-16: City of Youngstown Departments with a Garage/Maintenance Staff

	Fire	Parks & Rec	Police	Street	Water	Waste Water	Total
Staffing level (in-house)	1.5	2	5	10	6	1	25.5
Total # of vehicles/ equipment serviced	31	27	125	96	170	40	489
Average # of vehicles /equipment serviced per employee	20.6	13.5	25	9.6	28.3	40	19.2
Outside contractors	Yes 2-3 times a week	Yes as needed	No	No	No	Yes as needed	

Source: Various city departments

R11.12 The street department appears to have an excessive amount of staff to maintain and repair street department vehicles and equipment. The department should reevaluate its staffing levels for vehicle and equipment maintenance. Any excess staff could be reassigned to the regular labor force to assist the department in efficiently meeting current demands. To decrease excessive staff allocation, the City should consider the replacement of any aged items that require constant servicing (see related finding **F11.34**). A cost benefit may exist by replacing such items versus the current labor and materials expenses to keep them operational.

The City should also consider the implementation of a centralized garage to maintain all city vehicles and equipment for all departments. As noted in **F11.31**, each peer city has implemented a centralized garage. The benefits of having a centralized garage include decreasing garage facilities, insurance costs, garage staff, tools and equipment to maintain the vehicles and additional equipment. An additional benefit is the pooling of vehicles and equipment for all departments to use. Currently, departments do not share or lend equipment to other city departments. **Table 11-16** shows the departments that employ staff to perform vehicle and equipment maintenance and the total number of items being maintained.

Financial Implication: If the department implemented an equipment maintained to staff ratio comparable with the peer average, the street department could eliminate five positions. Since **R11.16** recommends the elimination of the tireman and blacksmith positions, this recommendation proposes the elimination of three positions with annual savings to the department of $106,000 for salaries and benefits.

F11.33 According to the mechanic foreman, until two years ago, vehicles did not have a routine maintenance program. The recently implemented routine maintenance programs involves an oil change, filters replaced and greased engine parts every 3,000 miles for non-diesel vehicles. The foreman implemented the use of stickers with the target mileage for the routine maintenance and the drivers are responsible for notifying the garage workers when routine maintenance is needed. The diesel trucks have an hour meter to note the number of hours the vehicle is running and routine maintenance occurs every 250 operating hours.

Prior to the routine maintenance program, vehicles were utilized until there was no oil in the engine or until it would not start. This caused significant down time for the vehicles due to their need of costly repairs. Not performing routine maintenance contributed to a shortened life expectancy for the department's equipment.

R11.13 The department should continue the routine maintenance and begin tracking the work performed on each vehicle in a database. The database will allow the department to track all maintenance related costs for each vehicle and assist in determining which vehicles should be replaced. Routine maintenance also contributes to a prolonged useful life of vehicles, and reduces maintenance costs in the long term.

F11.34 The street department does not have a formal vehicle replacement policy. The City does not have a long term plan which addresses the replacement of its aging vehicles and equipment. The lack of a replacement schedule, which would systematically replace equipment and vehicles over a certain number of years, has left the City with an aging pool of vehicles and, potentially, a large capital investment in the next few years. The department has several vehicles and pieces of equipment that are not operational or require constant repair. The department correlates this to the age of the items. The average age of the department's vehicles and equipment is twelve years.

Currently, the maintenance staff attempts to keep a vehicle running as long as possible. A review of vehicle records shows the department replaces four to five vehicles at a time every five years. The large capital expenditure every five years is difficult to finance and could be distributed over several years. The procedure of having one large cost every five years negatively contributes to the overall financial condition of the City. The City of Youngstown needs to plan for large capital expenditures more wisely.

In 1998, the general foreman prepared a three-year equipment and personnel needs report. The report contains cost estimates to purchase new equipment or replace old equipment and the personnel needs related to the purchase of new equipment. The schedule is not a replacement policy, but rather appears to be a wish list of capital and personnel needs for the next three years. The report contains some justifications for additional staff, but no information on whether the equipment is a new purchase or replacement purchase. The

department estimated the equipment costs, but not the personnel costs associated with the requested additional personnel.

R11.14 The general foreman should develop a formal vehicle/equipment replacement policy. The City could use an equipment replacement fund to help them prepare for the replacement of equipment that wears out or becomes obsolete. The replacement policy should state the useful life of each vehicle and piece of equipment and should develop attributes or characteristics that would consider an item to be unusable or unsafe to justify replacement. Developing a plan usually involves systematically determining how long equipment can be expected to last and setting aside funds each year to replace the equipment at the end of its useful life. Equipment replacement funds prepare local governments to finance capital purchases without a large expenditure in any single year. The current report lacks the policy aspect of determining the expected life and amount needed to set-aside yearly to replace the piece of equipment.

F11.35 To track and plan maintenance on department vehicles, the City uses stickers on the dashboard noting the mileage or hour reading when the vehicle is due for routine service. The system relies heavily on drivers to check the mileage and sticker and to inform the garage staff when routine maintenance is needed. Work orders for emergencies are filled out by the garage foreman based upon reports submitted by the drivers after shifts are completed and if problems are noticed.

F11.36 Youngstown's streets department does not use vehicle maintenance software to maintain vehicle equipment histories, schedule preventive maintenance programs, generate work order and reports, to monitor expense data, mechanic productivity and inventory control. Vehicle equipment histories consist of individual cards prepared on an annual basis for each vehicle containing chronological listings of repairs and scheduled preventive maintenance service. The development of documentation requires identifying dates, mileage, type of service, parts used and cost of parts used. The department does not have procedures in place for the documentation, monitoring and evaluation of mechanic repair times and productivity.

R11.15 Youngstown should review and assess mechanics' productivity and departmental staffing needs on an ongoing basis. Mechanic repair times and productivity levels are not documented, monitored or evaluated. The City should develop preventive maintenance objectives and procedures commensurate with manufacturer or industry standards that would enhance the efficient and effective operation of the fleet. The use of manuals, such as Chilton's Truck Repair Manual or manufacturer supplied warranty repair times, which could help the department establish estimated times for repairs for use in mechanic productivity measurement. Additionally, these will provide the department with valuable information that can aid in situations requiring decisions to repair the vehicle in- house or

through an outside vendor. This will allow the streets department to repair their vehicles in the most efficient manner.

The following list represents additional best practices related to equipment safety and preventive maintenance that the streets department should also consider in its maintenance and repair operation. These proactive practices include the following:

- The additional component to the preventive maintenance program involving a chemical analysis of oil specimens conducted by Pennzoil at scheduled intervals. For a nominal cost of approximately $3.20 per test, this analysis helps identify problem indicators and specific engine failures that would not be possible during normal service. This analysis which provides suggested service during maintenance inspections, helps minimize costly component repairs, and increases the value and application of warranties and service contracts.

- The implementation of procedures dedicated toward the monitoring of parts and equipment failures that are considered safety defects or have a high incident of repairs, replacement or failure.

- Vehicle diagnostic software is also available to the department such as the Mitchell On-Demand System, which produces both a medium/heavy trucks and an automobile, light truck and van version, as well as a parts identification and labor version. Features of this software include user friendly repair diagnosis, repair times, instructions, troubleshooting and schematics according to vehicle make. According to the vendor, the initial subscription cost for the medium/heavy truck version is approximately $800 with an annual service/software update cost of approximately $400.

- Dedicated mechanic and safety meetings training, and advanced mechanic certification such as the ASE certification for medium/heavy truck technicians. The City should update mechanic position descriptions to include the requirement that mechanics assigned to truck repair seek and maintain advanced training and certification **(F11.21)**, including a requirement that the mechanics obtain the A.S.E. certification for Medium/Heavy Truck Technicians. The certification includes exams on body systems and special equipment, diesel engines, drive trains, brakes, suspension and steering, electrical/electronic systems and air conditioning systems and controls that are developed by a cross section of industry experts and manufacturers. Several of these tests parallel existing A.S.E. Medium/Heavy Truck certification tests. Mechanics with two years of hands-on work experience, or a combination of education and experience, have an opportunity to take the test in May and November each year for the cost of a $25.00 registration fee and a $20.00 charge per exam.

Financial Implication: If the department were to pay for the A.S.E. certification for three mechanics and one garage foreman, it would cost $180 initially and additional costs would not be incurred for five years when the employees would need to be re-certified.

F11.37 The positions of blacksmith and tireman are not consistent with positions in the peer cities. The blacksmith performs welding and metal working on iron and steel and performs related work as required. Specific job duties include cutting and welding metal, straightening damaged parts, repairing used tools, and making repairs to metal truck bodies, mowing machines, and equipment. The tireman position is responsible for maintaining and repairing tires for all vehicles of the department of public works. This involves mounting, breakdown, remounting, and repair of wheels, rims, and tubes either on the road or in the shop. Peer cities incorporate these duties into the mechanic position. There is some uncertainty as to if there is a sufficient amount of work to keep both positions busy for the entire work day on a consistent basis. There is also uncertainty as to how each is being used when downtime occurs. The general foreman believes each may perform work not in their job descriptions, whereas, the maintenance foreman stated neither perform duties not in their job descriptions.

R11.16 The blacksmith and tireman positions should be eliminated and their job responsibilities consolidated into a mechanic's job description through the proper negotiations and agreement with the union. Realizing the garage is currently overstaffed (see **R11.12**), these two positions should be eliminated. However, if the department plans to hire an additional ten full-time employees as allocated for in the budget, the department may consider rehiring these employees to fill the new positions.

Financial Implication: The department could realize salary and benefit savings in the amount of $71,500 annually by eliminating the blacksmith and tireman positions.

Documenting of Project Costs/Daily Job Functions

F11.38 Daily job assignment sheets are created each morning to document the initial job assignment or leave for each employee. The assignment sheets only document the first job an employee is assigned to. Construction foremen do not update the daily assignment sheets when a worker changes job assignments during the day. Construction foremen do not always document all employees' job assignments. Consequently, assignment sheets should always have some indication of employees' duties or leave for each day. Often however, sheets are left partially blank. (See **F11.5** on data collection and **F11.14** on assigning jobs.)

During the winter work schedule, the daily assignment sheet used for the midnight shift is also used for the day shift. Therefore, there is only one assignment sheet for each day documenting both shifts. The day shift shows initial job assignments for each employee.

However, only the names of the workers on the midnight shift are documented. Construction foremen are not tracking job assignments on the assignment sheet.

R11.17 Daily job assignment sheets should be used by the department to document all job assignments of its workers for the entire day and for all shifts. Construction foremen should update the assignment sheet each time an employee changes job assignments during the day. They should also document the assignments being performed by the workers on the midnight shift. Improper and poor documentation has a negative impact on the department.

F11.39 The department does not currently track costs such as labor, material usage, and overhead costs, by a specific project or even by job function. Beginning in 1998, the demolition foreman has been recording the number of hours worked on demolition projects per day and by job classification on a personal computer. Currently, this is the only type of documentation that is being kept on an individual job function basis, and it does not specify which employees or which projects are being tracked. Consequently, the City cannot determine the actual expenses for demolition projects, vacant lot mowing, street maintenance, snow and ice control, and the other functions of the department. The department also does not have an indirect cost plan to address overhead costs and how they correlate to each job function of the street department.

R11.18 To measure meaningful results, the department must maintain records. The street department should develop an indirect cost plan in order to allocate overhead costs to each individual job function of the department. Total project costs would be more accurate if overhead costs were included in the calculation. The results can demonstrate value to the taxpayers. Knowing the results of services allows the department to illustrate whether it has accomplished its intended objectives, and if necessary, adjust its procedures or practices. Concentrating on results also helps the City to be more responsive to the needs of the citizens, and may help the City communicate more effectively with taxpayers.

F11.40 The computer system used by the department does not have the ability to track individual project or job assignment costs. The department created a systems analyst job in 1987 to design applications pertinent for performing departmental tasks. The systems analyst maintains departmental databases and programs on a stand alone personal computer. The analyst has created a database to compile work orders for the mowing of vacant lots and routine operations, vacant property collections, fuel consumption and street maintenance material usage. Files have also been created to track overtime costs, map vacant lots, establish snow routes and create an internal audit report that serves as a reconciliation document for payroll. Because of the City's unwillingness to hire employees to perform data entry duties at the department, the analyst currently performs all data entry. As a result, the analyst has been unable to create programs to track the department's daily assignments and subsequent costs. If new programs were created to track the department's

costs by job function total or by individual project, the department would not have the staff to perform the data entry of the information.

ODOT designed an in-house computer maintenance management system which assists in creating an annual planning document. The system also allows the tracking of individual projects to show which employees worked on a project, the number of man hours charged, material costs, and any other expense related to the project. The City of Lorain also designed a computer management system to track the department's activities and expenses. The system tracks labor hours and costs and material costs by job function. It also tracks costs by individual projects.

R11.19 The street department should maintain adequate documentation to enable a determination of actual job functions performed by each employee each day, the number of hours each employee worked on each assignment, daily job function, and total project costs. Total job function costs should include employees' salaries and benefits, material costs and any overhead costs associated with a specific job. Proper record keeping would enable the department to monitor employee productivity by project or by job assignment. Yearly costs can be determined by job function or by specific projects and the information can be used to compare to outside services and contractors. As a result, the City would be able to make decisions based on more informative and realistic data.

A best practice for maintaining adequate documentation has been documented in the City of Lorain. Lorain's street department superintendent fills out a daily log which shows project, workers, regular and overtime hours, and the vehicle/equipment used. Foremen also fill out a project/foreman report for each task or assignment which shows location, workers, regular and overtime hours, material and fuel costs and other data. Three slightly different forms are used; one for street sweeping, one for basin/sewer cleaning, and one for all other assignments. This information is then entered into the computer system to aid the commissioner in tracking performance measures.

R11.20 Once the department begins documenting individual project costs, as recommended in **R11.19**, it should enter the data into the computer system. The systems analyst believes that programs could be created to address the projected costs. However, if the department enters this data into a personal computer, it will need to assign an employee to perform data entry. If the systems analyst were to create the necessary programs, the data entry employee would be needed immediately to absorb the current data entry responsibilities performed by the systems analyst, while the programs are being written.

An alternative to having the analyst create the necessary programs in-house would be to consider purchasing a computer management system. Outside vendors offer canned software packages which vary in capability and cost. A joint decision of which package

would be most appropriate should be determined by the street department and computer services. One vendor that was contacted offers integrated software that has the capacity to track all projects as work orders and track complaints. The software also has modules which could be used to improve the vacant lot program. (See **vacant lots**). The cost of the software is $4,400. For an additional $990, the department can receive technical support from the vendor for one year.

Financial Implication: Although the software and technical support would cost the City $5,390, the costs are offset by the efficiency created by completing these reports. The vacant lot program efficiencies should increase the revenue potential through better record keeping and billing procedures.

B. Snow Removal and Ice Control

Background

Summary of Operations

The street department staffs the snow and ice control function with two shifts between December 1 and March 15. The first shift works from 7 a.m. to 3 p.m. and the third shift works from 11 p.m. to 7 a.m. When conditions warrant around the clock snow and ice control, the first shift is extended four hours and the late shift begins four hours early resulting in automatic overtime for all workers. Typically, the midnight shift is staffed with two foremen, three garage workers and 12 drivers. The remaining 35 workers are on day shift.

A main and secondary streets sheet and a side streets sheet comprise the master route sheet. The main and secondary routes consist of 213 center miles and are the primary priority for the department. Each route was developed manually and consists of about 18 center lane miles. The department combines some smaller routes resulting in an average of 21 center lane miles per route. Snow and ice control is performed by 16 city-owned, single-purpose vehicles. Typically, twelve trucks are deployed to run the routes. The drivers of the vehicles are assigned a route and vehicle each day through a seniority based job bidding procedure and are responsible for making the roads on the route operational.

The City of Youngstown has an unwritten bare pavement policy for all its roads. The City's practice of continuing to provide bare pavement is a result of citizen expectation over the past years. According to the mayor, the City continues to provide service at this level because it has become an expectation which he promised to meet or exceed. To maintain bare pavement, the department uses salting over plowing as much as possible. Departmental practice has been to begin plowing once three inches of snow has covered the ground. The general foreman stated that the department did not attach plows in the winters of 1996-97 and 1997-98.

Snow emergencies can be declared by the mayor. The emergencies are typically declared when four inches of snow are on the ground and more is falling or reasonably expected. When an emergency is declared, citizens living on the main and secondary routes are required to remove their vehicles from the streets so plowing can be performed more effectively and efficiently. Declaring a snow emergency has occurred infrequently. One emergency was declared in January 1999, while prior to that, an emergency was declared in the winter of 1995-96.

Performance Measures

The following is a list of performance measures that were used to analyze the snow and ice control function:

- Effectiveness and efficiency of the function
- Adequacy of record keeping
- Adequacy of level and mix of staff
- Effectiveness of scheduling personnel
- Effectiveness of routing
- Effectiveness of use of technology and equipment
- Effectiveness of salt utilization and storage

Findings / Recommendations / Commendations

Level of Service

F11.41 The extent to which maintenance services will be provided to a road section is determined by City management with the assignment of a level of service. According to a Snow and Ice Best Practices Review conducted in Minnesota, higher levels of service typically require more resources than lower service levels. A few indicators of the level of service are whether the local government has a policy of maintaining bare pavements throughout the winter, the time when a jurisdiction typically begins plowing and whether the jurisdiction plows alleys or sidewalks in addition to roads. The City of Youngstown does not have a written snow policy but has informally assigned a high level of service for the City's streets.

The City has an informal policy to maintain bare pavements on its paved surface roads. The high level of service provided by the department requires more effort than a policy which does not require a bare pavement on all streets including residential. The City of Youngstown spends a significant amount of resources attempting to keep its roads bare during a snow or ice event. No peer city attempts to maintain bare pavement on all its roads. The City purchases a significantly higher amount of salt each year than its peers (see **Table 11-26**). In addition, the streets department uses a significantly higher amount of overtime each year when compared to the City of Lorain to maintain bare pavement (see **F11.46**).

The second indicator of the level of service relates to the decision on when to activate the snow plows during a snowfall. The Youngstown street department will plow snow once three inches has covered the ground. Many local governments determine in advance that they will start plowing after a given amount of snow has fallen. **Table 11-17** compares the snow policies at Youngstown and the peer cities. The City of Lorain does not have a policy for snow and ice control, but its standard operating practice is that plowing commences when two inches of snow has fallen. Canton and Springfield have written policies stating that snow plowing will commence when there are two inches of ground snow cover. According to the general foreman, laborers are used to clear sidewalks during the first shift.

Table 11-17: Comparison of Snow Policies

	Youngstown	Canton	Lorain	Springfield
Written Policy	No	Yes	No	Yes
Plowing begins	3 inches or more is on the streets	2 inches or more is on the streets	2 inches or more	2 inches or more

Source: Peer city street departments

R11.21 The City should review existing snow and ice practices and develop a written snow policy. A written snow policy should address the following:

- proper timing of plowing or salting
- route prioritization
- snow and ice removal performance standards
- number of vehicles necessary for conditions
- general guidelines for the use of materials
- flexibility to change procedures in response to weather and road conditions
- level of service provided for weekdays versus weekends

The implementation of a snow policy should balance the competing needs of road safety, employee safety and fiscal constraints and can offer some protection to the community against liability for accidents.

The City of Springfield has a flexible written snow policy. The department reviews what was done to handle the storm and modifies the basic plan if necessary. The plan also sets forth snow condition designations which describe the level of service the City will provide. The levels are stated as conditions one through five and each condition includes procedures for City forces and citizens to follow. The policy also designates each street with a priority level A through D (residential streets are level D) and groups the streets into routes. The priorities are established by consideration of traffic volumes and maintenance of essential functions. In addition, Springfield's policy explains team assignments, snow emergency response procedures, general procedures for weather conditions, equipment operator procedures, plow and spreader operations, and a post-storm checklist.

F11.42 The streets department does not have performance standards for the snow and ice control services it provides. Established performance standards allow for the evaluation of the City's efforts and the comparison of performance over time and with other cities. Performance in snow and ice control is dependent upon weather conditions and the City's overall policy for snow and ice control.

R11.22 The department should develop performance standards as part of the development of a written snow policy (see **F11.41**). After the performance standards have been developed, the department should evaluate the number of employees necessary to meet the pre-determined level of service. Performance measures used in Minnesota's best practices review include the following units of output, efficiency measures and productivity measures:

Units of Output
- miles of primary and secondary streets plowed and salted
- tons of salt applied

Efficiency Measures (cost per unit of output)
- equipment cost per event
- material (salt or calcium chloride) cost per event
- annual mailbox and sod damage cost analysis

Productivity Measures (personnel costs per unit of output)
- labor cost per event
- annual labor cost in relation to mailbox and sod damage

Using established performance standards, the City should assess the combined annual cost for the entire program. The department should measure its effectiveness in terms of quality, timeliness and process. These entail annually evaluating routes (see **R11.31**) and equipment, monitoring equipment readiness (see **R11.32**), monitoring and recording precipitation accumulation relative to output activity, monitoring and recording winter parking violations, annually evaluating the parking ordinance and comparing the program to other communities.

Staffing and Scheduling

F11.43 The snow and ice control function at Youngstown is staffed with a first (day) shift and a third (midnight) shift beginning on December 1 and operating through March 15 of the next year. The first shift works from 7 a.m. until 3 p.m. and the third shift works from 11 p.m. until 7 a.m. When conditions warrant the street department to be staffed between the hours of 3 p.m. to 11 p.m., the workers receive four hours of overtime with each shift being extended by four hours. Employees working between 3 p.m. and 11 p.m. receive differential pay of 30 cents per hour while employees working 11 p.m to 7 a.m receive 45 cents per hour.

The midnight shift is staffed first by employees who place their names on a sign-up sheet in mid-November indicating their preference for the midnight shift. If an insufficient number volunteer to staff the shift, then the least senior qualified employees are placed on the shift.

Table 11-18 shows the number and type of employee on each shift or turn.

Table 11-18: 1998-99 Winter Staffing Schedule by Position

	Day Shift	Midnight Shift	Total
Superintendent	1	0	1
Foremen	2	2	4
Office	3	0	3
Drivers	12	12	24
Laborers	10	0	10
Garage[1]	7	3	10
Total	35	17	52

Source: Youngstown street department memorandum.

[1] The garage foreman, who works the day shift, is included in the staffing of the garage.

According to the general foreman, the only reason 12 drivers are assigned to the midnight shift is because there are 12 routes which need to be ran. The department uses a third shift as opposed to a second shift to ensure clear roads for morning rush hour. In order for the department to clear the roads for evening rush hour, the department must occasionally use overtime and keep employees on a 12 hour shift.

Table 11-19 compares various staffing policies of the peer cities to Youngstown.

Table 11-19: Comparison of Staffing Policies

	Youngstown	Canton	Lorain	Springfield
Shifts Utilized	1st and 3rd	1st, 2nd, and 3rd[3]	1st and 3rd	1st and 4 a.m. to 12:30 p.m.
First Shift	35	49	37	19
Second Shift	0	3	0	0
Third Shift	17	16	6	4 (4 a.m. to 12:30 p.m.)
Total Staff	52[1]	68	43	23
Winter schedule	Dec. 1-March 15	Dec. 1-April 1	Dec 1-March 30	Dec 1-March 1
Weekend Assigned Employees	No	Skeletal crew for sewer function	No	No
Use of other department employees during snow emergencies	No	Yes[4]	Yes (7 p.m.-3 a.m.)	Yes
Use of Outside Contractors	No[2]	When ground snow exceeds 8 inches	No	No

Source: Peer city street departments

[1] Does not include recycling/litter control.
[2] Youngstown is contractually permitted to use outside contractors after the department work force has had 24 hours to control snow emergencies. Outside contractors are not typically used.
[3] Canton's second shift is a skeletal crew for sewer function emergencies.
[4] Canton has a combined street and sewer department and uses employees assigned predominately to a sewer function to assist in snow and ice control.

The peer cities use split shifts staffed as shown in the table above. All peer cities begin winter staffing December 1 and continue to use two to three shifts until March 1 through April 1. In addition, all three peer cities use a first and third shift for snow and ice control services.

R11.23 The City should re-evaluate staffing and shift needs during the snow season. Factors which should be considered include the following:

- According to local climatological data supplied by the National Oceanic and Atmospheric Administration, during the 1998 calendar year, there were 12 days with snowfall greater than or equal to 1.0 inch. The normal number of days of snowfall greater than or equal to 1.0 inch is 18.5 days for the Youngstown area.

- The nonproductive time spent on the third shift when salting and snow removal is not necessary. **F11.44** below, discusses the lack of appropriate assignment, time and attendance tracking during the third shift.

- The contractual inability to use employees with CDL licenses from other City departments in case of a major snow emergency.

The following discusses three possible options for the City to consider after the staffing and shift re-evaluation:

Option A

The City could consider reducing the number of staff assigned to the third shift and providing for regular coverage over the weekends. For example, the third shift could be reduced to two foremen, six drivers and two mechanics. The workweek could be staggered so that two drivers work Monday through Friday, two drivers work Tuesday through Saturday and two drivers work Sunday through Thursday. The foremen and mechanics could be staggered to cover all the days of the week. This schedule would provide two drivers for coverage each weekend, four drivers for Monday and Friday and six drivers Tuesday through Thursday. Overtime call-out could be necessary during extreme snow conditions. A similar workweek schedule could be developed for the first shift.

The additional staff strength could then be utilized to perform other related functions such as snow removal from sidewalks and intersection ramps, removing snow from street parking lanes to allow for access to businesses and residences and from storm drains to allow for the proper drainage of melting snow.

Option B

The City could consider splitting the employees currently assigned to the third shift to implement a second shift. The current staffing schedule leaves the afternoon rush hour shift vacant. If snow or ice conditions are expected during the evening rush hour, employees are guaranteed overtime to keep the roads clear. A second shift may help ensure that snowplow operators are on the job when needed and in time to make the roads accessible through salting or plowing. In addition, overtime costs may be reduced by having some of the needed drivers working on regular time. A second shift could use the remaining daylight hours when it is not snowing to perform the various functions of the department such as those discussed in option A.

Option C

The City could maintain a skeleton crew on the third shift, or eliminate the shift entirely, and utilize overtime to cover any snow emergencies. As the primary objective for the department is to maintain the roadways during periods of heavy traffic, crews should be allocated in a manner to cover the morning and afternoon rush hour traffic. Eliminating the third shift should enable to the City to realize better productivity of employees, while addressing the periods of heavy traffic without incurring overtime.

Financial Implication: In 1997, the City paid over 1,280 hours of overtime which occurred over the weekends in January, February, March, November and December. Option A could possibly reduce the amount of overtime used during the snow month weekends. The amount depends on the actual weather conditions and the City's snow and ice control efforts for each snow event. For example, a reduction of forty percent or about 500 driver overtime hours would mean a gross wage savings of approximately $9,200 and does not include the payroll tax and retirement costs associated with the overtime. Option B could also provide reductions on weekday overtime. Based on the amount of overtime incurred on weekdays in 1997 of over 700 overtime hours, a forty percent or 280 overtime hour reduction could provide a gross wage savings of approximately $5,100. Cost savings associated with Option C will depend upon the amount of snowfall the City actually incurs and the corresponding time-frame.

Implementation of any of the proposed options would allow the department to increase the productivity of its workers and allow for additional attention to other departmental functions.

F11.44 The City does not keep records on absenteeism or work assignments for employees working the third shift. The first priority of the third shift is to prepare the equipment for the next snow. According to department supervisors, the crew also performs street sweeping in non-residential areas, pothole repair, demolition, and litter control if weather permits. When it is not snowing, night crew job assignments are determined by the general foreman in the same manner as the day crew.

According to the construction foreman, crews should be listed on a daily assignment sheet in the same manner as the first shift. This documentation is the responsibility of the construction foremen assigned to midnights. When the department switched to two shifts for the winter season, the assignment sheets did not show the employees' names for the midnight shift. The daily assignment sheets merely reflected a section labeled midnight shift and the job function(s) for that night were listed afterward. There is no way to determine if an employee was at work or not and if at work, to what function assigned. There is a risk that employees are being paid for hours worked when actually, they are not at work or are unproductive after reporting to work.

Along with the daily assignment sheets, a master route sheet is filled out for each day of snow and ice control. The master route sheet indicates which driver and vehicle is treating each route. The master route sheet has main, secondary and side street routing. The street department considers the main and secondary routes to be of primary importance. Once the main and secondary routes are completed, the side streets are treated.

The department could not provide master route sheets for 17 days during which the daily assignment sheets scheduled workers for snow and ice control. The general foreman explained that there may not be master route sheets because the workers could have been on stand-by and not assigned to a specific route or spot treating bridges. Being on stand-by means the weather conditions forecasted will warrant drivers to work forcing the employees to stay at the yard awaiting snowfall. In 1997, the City had three documented occurrences of stand-by.

R11.24 The City should ensure that third shift employees are listed on the daily assignment sheets and that attendance and functions assigned are properly recorded. The general foreman should review each day's assignment sheet to make sure all third shift employees are included and then review the finished assignment sheet for completeness. Currently, the department cannot determine how productive the third shift is when conditions do not warrant snow and ice control activities. Until the City is able to document attendance and assigned work functions, a cost savings can not be estimated.

F11.45 Youngstown does not maintain adequate records for labor costs or for man-hours spent on snow and ice control. Man-hours spent on snow and ice control were estimated from the daily assignment sheets (see **F11.40**). However, this is a time consuming process and some sheets were missing or never filed. Inadequate record keeping can lead to an improper allocation of resources.

R11.25 The City should consider the implementation of a job order costing system or cost center tracking system to track snow and ice control data. The City does not currently track specific categories of costs such as snow and ice control man-hours or materials in a way that allows for the creation of timely and informative management reports for observation and analysis. The City should review the current technology available in the streets department and in conjunction with the director of computer services, select and implement the appropriate system. For example, the City may be able to use the cost center functions available on the General Accounting and Financial Reporting System (GAFRS) software used by the finance department.

A job order costing system would allow the City to track other information such as the quantity of material used for salting and plowing. Operators should manually complete a daily activity log on which they report the date the shift starts, route number, operator name, stockpile location, type of material, and quantity of material used. Operators should

turn in the activity log to the foremen, who should ensure that all logs are returned and entered into the system.

In addition to the collection of labor and material costs in a job order costing system, the department needs to maintain adequate documentation of snow events. The documentation will facilitate the development of performance standards. The foreman should report measures relevant to storm response, including weather conditions of the snow or ice event, the time the event started and ended, the shifts and operators called out, and the response taken. Information could then be assembled into a summary report. Information in the summary report should include:

- date of snow or ice event and start time of response
- shift called out
- call out (full or partial)
- number of regularly assigned and fill-in employees used
- total routes filled and not filled
- total plowing units
- ability to fill all routes needed for call out, and
- amount of precipitation and weather condition.

Financial Implication: If the City determines that the functionality of the GAFRS system can be used to track cost center date, the cost to the City could be minimal training and system maintenance costs. However, if the City decides that a job order costing system should be implemented, an analysis of hardware and software systems should be completed. The cost to the City could be more accurately estimated at that time.

F11.46 The City uses overtime extensively to perform snow and ice control. **Table 11-20** shows a month by month break down of regular and overtime hours spent on snow and ice control. It is possible for employees to receive overtime on the weekend or between the hours of 3 p.m. and 11 p.m. weekdays. Overtime is determined by the weather conditions. When severe winter weather is anticipated, a small crew of three to four drivers is kept at the garage on stand-by and paid at time and a half. The full snow crew remains on duty for four hours when conditions warrant plowing or ice control to continue. In addition, the third shift crew is called to come in four hours early to ensure that plowing and ice control can continue for twenty-four hours. Overtime is mandatory only when the mayor declares the City to be in a state of emergency.

Table 11-20: 1997 Month by Month Hours Spent on Snow and Ice Control

	Regular Hours	Overtime Hours	Total Hours	Overtime as a Percent of Total Hours
January	1,035.0	493.5	1,528.5	32.3%
February	490.5	584.0	1,074.5	54.4%
March	128.0	71.0	199.0	35.7%
April	56.0	0.0	56.0	0.0%
November	160.0	465.0	625.0	74.4%
December	936.0	392.5	1,328.5	29.5%
Total	2,805.5	2,006.0	4,811.5	41.7%

Source: Youngstown 1997 Daily Assignment Sheets.

The City of Youngstown spent a total of 2,006 overtime hours on snow and ice control which amounts to 41.7 percent of its total hours. In contrast, the City of Lorain spent 5,611.5 hours on snow and ice control in 1997. Of these hours, Lorain spent a total of 1,493.5 hours in overtime or 26.6 percent of the total hours spent on the function. Lorain attributes its low overtime costs to the mild winter, good weather service, and only calling in the necessary number of employees. In addition, Youngstown's streets department has a high usage of sick days. Sick leave usage may lead to excessive overtime hours for the department to complete its daily work load.

The employees perform a large portion of overtime on the weekends during February, November and December. **Table 11-21** shows the hours spent on overtime on weekdays versus weekends.

Table 11-21: 1997 Weekday versus Weekend Overtime by Month

	Weekday	Weekend	Total
January	421.5	72	493.5
February	20	564	584
March	71	0	71
November	187.5	277.5	465
December	23	369.5	392.5
Total	723	1,283	2,006

R11.26 If the City adopts a policy with a lowered level of service as a result of the development of a written snow policy (see **F11.41**) and a re-evaluation of staffing and shift needs (see **F11.43**), the City could realize operational efficiencies and overtime cost savings. The City's law department could review the labor contract with the Teamsters to ensure that designation of new work weeks discussed in **R11.23** do not need to be re-negotiated.

If Youngstown were to implement the policy, it could realize significant savings from overtime compared to prior year expenditures. Overtime costs could be reduced by paying the crew the regular hourly rate on weekends if the new shift scheduling was implemented. The City would only need to pay overtime rates when employees are needed to cover vacations of other employees.

Financial Implication: The actual financial implication of setting a lower level of service could not easily be estimated since it would depend on the weather conditions and the level of service selected. The financial implication associated with reducing overtime payments in the street department is presented in **R11.26**.

F11.47 Overtime is divided as equally as possible and is granted on an hourly equalization basis. The general foreman posts a seniority listing of employees wishing to receive overtime and records the number of overtime hours offered to the employee after his name. The person with the lowest number of overtime hours offered and highest seniority will first be offered the overtime. The department updates the seniority list at the beginning of the year and re-offers overtime based upon seniority. The person with the fewest overtime hours offered will receive the next overtime available after the initial pass through the seniority list. Consequently, the highest paid, most senior employees are not always receiving the first opportunity for overtime and the overtime is equitably distributed among qualified employees.

C11.1 By equitably distributing overtime among qualified employees, the street department saves money through not paying the highest salaried persons overtime every time the opportunity for overtime arises.

F11.48 The City does not manage snow and ice control overtime in an efficient manner (see the discussions in **F11.46**). The mayor has implemented a new policy to limit discretionary overtime in the City. However, the policy does not affect the amount of overtime used for snow and ice control. Snow and ice control is not discretionary since it is considered emergency overtime. (See **general section F11.22**)

R11.27 Although overtime is inevitable in snow and ice control, management must take a more active role to manage overtime. The snow and ice function garnered over 2,000 hours of overtime equating to more than 40 percent of the total hours expended. To manage

overtime usage for the snow and ice function, the City should utilize the recommendations in this report to more efficiently and effectively deploy manpower and resources. Examples of overtime managing recommendations include the following:

- Reviewing the city-wide bare pavement policy (**R11.21**)
- Examining service levels provided during other non-essential times such as weekends or holidays (**R11.21**)
- Explore the concept of utilizing a second shift rather than a third shift to provide greater coverage during essential rush hour times (**R11.23**)
- Increasing the number of CDLs within the department to allow for greater flexibility of deployment (**R11.28**)
- Allow collaboration of departments to increase staff levels for critical snow emergencies (**R11.30**)
- Re-evaluate the daily bidding process to reduce excessive downtime (**R11.4**)
- Incorporate the use of satellite salt storage bins and reassess route efficiency to decrease unproductive operations (**R11.36 and R11.31**)

F11.49 The street department predominately uses truck drivers and garage workers to complete snow and ice control. A commercial driver's license (CDL) is required to drive the snow and ice control vehicles. Because laborers are not required to possess CDLs, they cannot drive the vehicles. For the garage staff, only mechanics are required to obtain CDLs to test drive the vehicles. See **Table 11-18** for winter staffing levels of the department.

Table 11-22: Peer Comparison of Employees with CDLs

	Youngstown	Canton	Lorain	Springfield
Number of Non-Administrative Employees	40	58	31	22
Number with CDLs	25	58	31	22
Percent with CDLs	62.5%	100%	100%	100%

The City of Youngstown does not require all employees to obtain CDLs. The peer cities require a CDL as condition of employment in the department. By having all employees obtain CDLs, the staff is more versatile and is not as limited in the work it can be assigned.

R11.28 The City should encourage its laborers to obtain a CDL. By increasing the number of employees with CDLs by ten, the City should be able to allocate its resources for snow and ice control more effectively. The department should institute an incentive for all City workers to obtain CDLs. One option is to pay for the course and licensing fees. To obtain a CDL, a person must have a valid Ohio driver's license, be 18 years of age, complete a

physical examination form (which is valid for two years), and have a social security card. For testing, the person must provide a vehicle appropriate to the class of CDL for which the person is applying. The City should provide after work hour training without pay for these employees on the vehicle they will use for testing. After employees have obtained CDLs, the street department could use these employees as a substitute pool of drivers.

In addition, the department should also consider requiring all new employees to possess CDLs. This could result in the department phasing out its labor positions, but will give management the opportunity to staff employees in all functions year-round.

Financial Implication: The testing cost for CDLs is $50 and must be renewed every five years. If the department limited the pool to 15 employees, the testing cost would be $750. The department would need to pay overtime to the employees providing training on the vehicles. Based upon the truck driver's rate of pay for 10 hours of training per person, the overtime cost would amount to $2,800. The total cost every five years could be up to $3,550. A driver/laborer receives a higher rate of pay than laborer. The difference in pay would cost the City an additional $875 per employee annually or $8,750 annually for the current ten laborers to become driver/laborers.

The additional cost would be offset by the annual savings realized through the reduction of overtime currently paid. In 1998, street department overtime costs were approximately $90,000. By requiring all department personnel to obtain a CDL, establish a pool of substitute drivers (see **R11.30**), and effectively scheduling employees (see **R11.23**), the department should be able to significantly reduce the amount of overtime pay associated with snow and ice control. Assuming the implementation of these recommendations reduced the amount of overtime pay by 75 percent, the department would realize estimated annual cost savings of $67,500.

F11.50 Snow and ice control vehicle training consists of working along side an experienced driver who shows the new driver how to determine the amount of salt to apply depending on the condition of the street. The manual spreaders release salt based upon the setting the driver determines is needed. This determination is based on experience and specific conditions including the time of day, expected traffic flow, temperature, and expected snow fall. Inexperienced judgements concerning the spread setting can lead to the over use of salt for the given conditions. Training is not documented, nor have standard training procedures been established.

R11.29 The department should establish specific training standards for all employees. Training and experience should allow the department to minimize salt waste and increase the coverage of a truckload of salt. Successful completion of training should be a prerequisite for participation in snow and ice control.

The intent of continuing training should be to provide a refresher course for experienced drivers. The City should maintain records of training participation in each employee's file. An example of an annual fall training session as shown in the Snowfighter's Handbook published by the Salt Institute, should include the following items:

- Plowing and salting routes
- Effective radio communication
- Storm warning system
- Working with police, other public agencies, and the media
- Equipment - plows, spreaders and controls, loaders, emergency repair and refueling stations, importance of preventive maintenance
- How salt works, how and when to salt, application rates, when to re-apply salt
- Special storm conditions
- Special de-icing problems (bridges, elevated curves, ramps, intersections)
- Snow emergency routes and parking ordinances
- Procedures for helping motorists, importance of personal public relations
- Safety equipment and practices
- Environmental issues
- Dry runs

F11.51 As noted in **F11.14**, the daily bidding process reduces productivity which means the roads are not treated throughout the morning rush hour. Drivers spend about a half-hour in the bidding process which means they are not deployed until 7:30 a.m. According to street department night foremen, the night shift has a gentleman's agreement to choose the same route and same truck each night which speeds up the process of assigning routes and vehicles. As recommended in the **general section**, the department should revise its procedures for assigning staff to jobs on a daily basis. Although the general foreman indicated a move towards this procedure, they have not been implemented.

C11.2 The night staff's practice of choosing the same route and truck each evening in order to reduce non-productive hours is a good practice and should be implemented for all shifts and functions.

F11.52 The collective bargaining agreement with the Teamsters' union limits the City's ability to respond to an extreme weather emergency. The agreement does not allow the City to use workers from other departments to assist the streets department in snow and ice control. The general foreman stated that the other departments with employees who hold CDLs do not have drivers who have been trained on the snow and ice control vehicles. The parks and recreation department and the waste water

department have employees with CDLs. The parks and recreation department has many seasonal employees and operates with a skeletal crew during the winter.

Youngstown's peer cities use other departments' employees to assist in snow and ice control. The City of Lorain uses other department employees who hold CDLs during the hours of 7 p.m. and 3 a.m. The City of Canton has a combined sewer and water department. The employees of the combined department have a clearly written Snow and Ice Control Employee Handbook which describes the use of employees typically assigned to perform sewer tasks in snow and ice control situations. The City of Springfield uses employees from the utilities, parks and recreation, and facilities departments after all public work personnel have been called out.

R11.30 The City of Youngstown should negotiate with the Teamsters' union to use other department employees during regular work hours to assist in snow and ice control, especially when a snow emergency has been declared by the mayor. The City would also need to negotiate with AFSCME Local 2726 and Steelworkers' unions to utilize the employees as substitute drivers. The City should encourage other department employees to obtain a commercial driver's license (CDL) and become part of a substitute pool of drivers. In addition, employees from other departments who are required to possess CDLs as part of their current position could be utilized as part of the pool. For example, the City could provide an annual stipend to those who become part of the substitute pool. The stipend could be based on the following:

!	No refusal of assignment	$300
!	One refusal of assignment	$200
!	Two refusals of assignment	$100
!	More than two refusals of assignment	$0

Financial Implication: The cost to the City would be dependent upon the number of employees signing up to serve as substitute drivers. The City could limit the amount by specifying the overall number of substitutes it will accept and train each year. If the City limited the list to 15 employees, the maximum cost to the City would be $4,500 based on all employees on the list not refusing an assignment. The cost could be offset by a reduction in overtime expenditures. The financial implication associated with the reduction of overtime payments is presented in **R11.26**.

Routing, Equipment, and Technology

F11.53 There are 13 main and secondary routes totaling 213 center lane miles. The streets department normally staffs 10 routes, because the City does not need to perform the I-680 Expressway route unless requested by the state and two additional routes (one south and

one east) are usually combined with other south and east routes. The ten routes are about 21 center lane miles each. A center lane mile is defined as the length of a stretch of road using the center lane. When the routes are not combined, 12 routes are staffed, the average length of a route is 16 center lane miles. The City of Youngstown has an additional 13 routes for side streets which comprise the remaining 205 center lane miles.

Table 11-23: Average Lane Miles per Route

	Youngstown	Canton	Lorain	Springfield
Number of Trucks	16	47	27	17
Number of Routes	23 [1]	14	16	10
Center Lane Miles	418	406.25	220	250
Average Miles per Route	18 [1]	30	30	25
Average Inches of Snowfall	57.2	49.2	56.2	30.0
Square Milage of City	35	19.5	23.8	23.37

Source: Peer city street departments and Local Climatological Data from the National Oceanic and Atmospheric Administration.

[1] Youngstown has 10 main and secondary routes with an average of 21 center lane miles per route and 13 residential routes with an average of 18 center lane miles per route.

Youngstown's manner of assigning routes is not consistent with the peer cities. The peer cities do not differentiate between main, secondary, and residential streets. Rather, each divide the cities into sections and drivers are required to treat the main roads in these sections first, followed by those with a lower priority.

Table 11-23 shows that the Youngstown street department is not maintaining as many lane miles as its peers per route. While the City has a greater number of center lane miles to maintain, average miles maintained per route are 30 to 40 percent less than the peer cities. Issues which may contribute to this unfavorable statistic include staffing schedule and employee inefficiencies, routing and other operational inefficiencies. In addition, Youngstown has more square mileage than the peer cities.

F11.54 The City has not updated routes since 1989. According to the Snowfighter's Handbook, effective route planning ensures that the street department provides service as rapidly as possible and clears the highest priority routes first. The majority of time operators spend on their routes should be time spent plowing or salting. Effective practices for route planning include the following:

- Establish routes that minimize vehicle "deadhead" trips (trips whose sole purpose is returning for salt or fuel)
- Discuss any changes in routes from the past year prior to the start of the snow season.

- ! Design routes that allow operators to make repeated right-hand turns to avoid leaving windrows at intersections
- ! Build additional facilities for storing salt and equipment in locations throughout the city to minimize "deadhead" trips.

R11.31 Youngstown should update its snow and ice routes. The City may benefit from the use of computerized routing software. Routing software attempts to improve routing effectiveness by controlling the efficiency of each pass by a snowplow. Furthermore, the software can assess the efficiencies for types of vehicles, the locations of facilities, and the use of materials along priority routes. Streets classified as main and secondary may have changed in the past ten years given the rise of vacant lots within the City. Routing software can also be used for other functions such as street cleaning and sweeping. Youngstown's peer cities do not currently use routing software.

Financial Implication: The cost to implement a routing software system would depend on hardware and software requirements. One routing software package (SNOWMASTER) costs approximately $3,000 but does not include the cost of entering a grid map of the City into the system.

F11.55 Snow and ice control is performed on the streets using 16 city-owned trucks which are only used for snow and ice control. The slag trucks are five ton trucks which hold about ten tons of salt. The average age of Youngstown snow and ice vehicles is seven years with the oldest vehicle at 18 years. According to the general foreman, the department was approved to purchase five new snow and ice control vehicles in 1998 at a cost of $329,000 and is expecting delivery of the vehicles in the spring of 1999. These would replace the oldest vehicles in the fleet. **Table 11-24** shows the average age of the vehicles compared to the average mileage.

Table 11-24: Snow and Ice Control Vehicles

	Youngstown	Canton	Lorain	Springfield
Number of Trucks	16	22	26	19
Average Age	7	8	6	6
Average Mileage	27,677	Hourly meters	19,372	42,542
Year round use of vehicles	No	Yes	Yes	Yes
Manufacturer estimated useful life of vehicles	12 years	15 years	12 years	12 years

Source: Peer cities street departments
Note: The City of Springfield is on a ten-year replacement schedule for vehicles, but has found the salvage value is for two to five more years of use.

F11.56 Youngstown does not properly maintain its vehicles during the winter months. Given the high staffing level for the garage (**Table 11-15**), the department should be better maintaining its vehicles. Youngstown stores the trucks indoors during the winter season with salt in the beds. According to the foremen, the beds are not unloaded because another snow event is likely to occur and it would take too long to fill the beds. The salt in the beds has been exposed to the elements and has water in it from the melting snow. The salt water will begin the corrosion process on the truck beds. The vehicles are not sprayed off unless the mechanic foreman decides the truck has too much salt caked on it and will request the driver to spray it down before going on the route. After the winter season, Youngstown's snow and ice control vehicles are washed and placed in storage for the remainder of the year.

Although the peer cities reported the useful life of vehicles used year-round to be 12 to 15 years, when speaking with a local dealership for snow and ice control vehicles, the salesman stated the useful life for International trucks used by the City of Youngstown should be 10 to 12 years. However, the general foreman stated the typical life cycle of the vehicles at Youngstown was six years. This indicates that Youngstown is not receiving the maximum value from its vehicles due to a lack of proper maintenance. Proper maintenance should include raising and spraying down the salt beds on a daily basis. Once the salt is moistened and sits in the bed or on the chassis, the rusting process begins and will eventually corrode the steel. Some municipalities remove the beds in the spring and repaint the beds with a rust inhibitor to lengthen the useful life of the truck.

R11.32 The City should maintain the trucks according to manufacturers and accepted maintenance procedures. Maintenance procedures would include, but are not limited to the following list of activities:

- **!** Unload and wash the beds and underbodies of the trucks daily when in use
- **!** Pressure wash before being placed in extended storage
- **!** Application of a protective rust inhibitor to the truck bed
- **!** General mechanical maintenance and lubrication

Financial Implication: Although an increased maintenance effort may require supply costs to increase, the current staffing levels of the department's garage is sufficient to allow this maintenance to occur without additional staff. Furthermore, by extending the useful life of the vehicles to the recommended 12 years, as opposed to the 6 year life span indicated by the general foreman, the City should experience a cost avoidance of approximately $1.0 million over the next 10 years, or $100,000 annually, associated with truck replacement.

F11.57 The City's salt trucks are stored during the spring and summer. According to the mechanic foreman, the worst thing for a vehicle is idleness. Youngstown is the only city in the peer group who stores its snow and ice control fleet for the summer and does not use the

vehicles year round. Approximately two years ago, the mechanic foreman implemented indoor storage of the vehicles, during the spring and summer, in an attempt to prolong the life of the snow and ice control vehicles which were not being used. However, the general foreman stated the useful life of the vehicles at Youngstown was six years.

The snow and ice control vehicles are stored at the Barrett Cadillac Building on Wick Ave. which is owned by the City of Youngstown. According to the mechanic foreman, storing the vehicles has reduced the cost to prepare the vehicles for the snow and ice season, but no cost data could be provided. All unneeded summer and spring equipment is stored in the building during the winter months.

The slag trucks the City purchases for snow and ice control are too large to use for some functions such as street patching. These vehicles are too high to remove material from. However, the slag trucks are too small for use in demolition to haul debris because they hold about one-third the amount of the dump beds currently used.

ODOT uses its vehicles year-round by adapting dump trucks for snow and ice control. To adapt a dump truck, ODOT adds a plow on the front of the vehicle and places a slanted hopper into the bed of the truck. The hoppers range from $5,000-$9,000 per truck as opposed to spending $95,000 for a truck. The salt hoppers would need to be stored during the spring and summer, but the number of vehicles owned by the City would be reduced. Peer cities also use their vehicles year round without the use of hoppers.

R11.33 The streets department needs to better plan for future vehicle replacements. The department should consider requiring vehicle to be capable of having a plow attached when considering future expenditures for equipment. The vehicles should possess functionality for performing multiple tasks which would allow the department to reduce its overall vehicle fleet. In combination with the proper maintenance discussed in **F11.56 and R11.**, the actual useful life of the vehicles could be significantly improved.

Salt Use and Storage

F11.58 The street department uses de-icing salt to keep the roads safe for drivers. Salt prevents the bonding of ice and snow to pavement surfaces, permitting more efficient and faster removal of hazardous snow and ice. In 1991, the Transportation Research Board concluded that de-icing salt is the fastest, cheapest and most effective method of coping with winter's ice and snow and that there were no reliable or economical substitutes for salt in the foreseeable future.

The de-icing salt is purchased frequently throughout the winter season to allow the City to keep a minimal amount of salt in storage on site. The following table shows a five year history on the amount of salt purchased by Youngstown.

Table 11-25: Amount of Salt Purchased 1993-1998

Year	Amount Paid (per ton)	Total Spent for Salt	Amount of Salt Purchased (in tons)	Contractor
1998	32.37	$191,183	5,906	Cargill Salt Inc.
1997	33.32	$163,410	4,904	Akzo Nobel Salt Inc.
1996	33.32	$371,846	11,160	Akzo Nobel Salt Inc.
1995	32.42	$255,883	7,893	Akzo Nobel Salt Inc.
1994	28.00	$412,458	14,731	Rochez Bros. Inc.

Source: Youngstown purchasing department and contracts.

Note: Cargill Salt Inc. acquired Akzo Nobel Salt Inc. in 1998.

F11.59 The City of Youngstown uses a significantly higher amount of salt than the peer cities. In 1998, the City of Youngstown reported using between 112 and 238 percent more salt than the peer cities. The following table presents peer information concerning salt usage and storage.

Table 11-26: Peer Comparisons

	Youngstown	Canton	Lorain	Springfield
1998 Tons of Salt Used	7,000	2,341	2,068	3,300
Pre-wetting Agent Used	No	Calcium Chloride (below 25 degrees only)	No	Calcium Chloride (when necessary)
Average Snowfall in Inches	57.2	49.2	56.2	30.0
Tons of Salt per Inch of Snowfall	122	48	37	110
Type of Storage	Uncovered	Domes	Domes	Sheds

Source: Peer city street and/or building departments.
Note: Tons of salt used by Youngstown is an estimate provided by the general foreman because documentation of the amount of salt used is not kept by the department.

The City of Lorain was able to provide an accurate figure for the amount of salt used because the drivers are required to fill out a form at the end of the shift indicating the amount of chemical used. The amount is an estimate based upon the capacity of the vehicle and the number of loads the driver used. According to Lorain's street department supervisor, the estimate appears to be accurate over the course of the year.

The peer cities and Youngstown have similar in-cab controls to regulate the amount of salt placed on the roads. The peers seems to utilize the controls to use salt effectively and monitor the use of salt by vehicle and driver to ensure the appropriate amount of salt is being placed.

R11.34 The City should review salt application procedures to identify inefficiencies which have led to the high use of salt compared to peer cities. Possible inefficiencies could include the following:

- Improper spread settings: Proper spread settings are determined by weather conditions and driver experience and observations. Improper settings could apply more salt than is necessary for the conditions. Driver experience may have a direct relationship with the efficient application of salt.

- Poor route design: Poorly designed routes may allow double coverage of streets on separate routes.

- Poor storage of salt: While salt never loses its ice melting power, exposure to precipitation can cause significant material loss.

In addition, the City should develop performance standards for employees and implement procedures to begin tracking the amount of salt used. By recording the amount of salt used, the department will be able to monitor usage by driver and truck. The chemical is the most expensive part of snow and ice control, next to the capital investment. If costs are to be contained, the City needs to closely monitor salt usage. The information developed may indicate a need for further training on salt usage or indicate the need for re-calibration of the salt spreaders. See **F11.50** and **R11.29** for further information on training.

F11.60 According to the Salt Institute, salt never loses its ice melting power no matter how long it is stored or how old it is. Also, there is no loss to moisture from the air if salt is properly stored. Salt does not absorb moisture until the humidity exceeds 75 percent. Moisture that is absorbed will later evaporate, but there may be a thin crusting on the surface of the stockpile that is easily broken up. Salt, however, can be lost to precipitation. Stockpiles should never be left exposed to the elements–rain or snow.

The City of Youngstown stores salt at the streets department yard on a concrete pad. The salt pile is uncovered and exposed to the elements at all times. According to the Salt Institute, rain reduces a salt pile at the rate of about one quarter percent per annual inch of precipitation. The exposed salt becomes salt brine once it is mixed with water. The salt brine enters the storm water ditch and eventually the Mahoning River. There are various regulations which affect the way the City can store salt. Improper storage of salt could expose the City to numerous environmental liabilities.

ODOT stores de-icing salt in salt domes throughout the state. Occasionally, ODOT will enter into agreements with counties or municipalities to share the salt dome storage space. The agreements necessitate that the municipality or county track the amount of salt stored and used from the salt dome accurately. Youngstown's peer cities all store salt reserves in dome or shed structures. A large salt dome can be constructed for about $192,000 and will store 6,600 tons of salt. Other less expensive options to constructing a salt dome include constructing a basic I-beam structure or wood structure to protect the salt pile from the elements.

R11.35 Youngstown should ensure that salt reserves are properly stored to protect the material from precipitation and limit the environmental impact of the material's runoff. The City should store salt on an impermeable pad in a ground-level storage building. For ease of loading and unloading, the building should have sufficient capacity to accommodate a loader. In smaller facilities, conveyors can load the materials, although some conveyors have more success than others. Enclosed conveyors with chutes at the top can prevent salt spillage and have an additional advantage of covered bearings. Exposed bearings are susceptible to corrosion and can require additional repairs. If indoor facilities are impractical or unaffordable, the department can store salt on an impermeable pad and cover it with a weighted, waterproof tarpaulin.

Financial Implication: The cost to construct a dome with a 5,000 ton capacity would be approximately $159,000 based upon the estimate the City of Canton received to construct a salt dome this upcoming year. A dome would allow the City to purchase most of its salt prior to the snow season, instead of constantly purchasing salt throughout the winter. Furthermore, there would be no loss to precipitation from improper storage. A calculation based on the City's normal rainfall of 37.32 inches per year shows that the possible loss of material could be over 9 percent or 90 tons per every 1,000 tons stored. By properly storing the salt, a savings can be calculated using the 1998 cost per ton of $32.37 and a salt reserve of 5,000 tons. The estimated savings by properly storing the salt is approximately $14,566 per year. The savings calculated would provide a simple pay-back period for the construction of the building of ten years.

F11.61 Although Youngstown has an area in square miles larger than its peers, it only uses one site for salt storage. The current site is not centrally located within City. The peer cities maintain satellite salt stations in addition to the main salt station. Because Youngstown has only one salt storage facility, a significant amount of productive time is lost traveling to refill trucks. According to the general foreman, about one-third of a drivers shift is spent driving to refill salt. This results in a loss of approximately 1,600 productive man-hours each year which costs the department nearly $20,000.

R11.36 In addition to constructing a dome storage structure, Youngstown should consider a satellite salt station. The full amount of productive man hours will not be recovered

through a satellite station, but any travel time reduced provides an increase in productive time.

Financial Implication: The cost of a satellite salt station would depend on the capacity that the City determines is needed. Some of the cost could be offset by savings in the deployed cost of increasing the productive time of the drivers.

F11.62 The department does not prewet the road salt prior to use. Prewetting road salt before application to the road surface accelerates the melting action of the snow and ice. Prewetted salt particles instantly penetrate the snow or ice layers and break the bond between the snow or ice and the pavement. Salt prewetting also permits more accurate placement on the roadway by reducing the amount of salt that bounces off the road.

Prewetting generally means a smaller amount of salt used, resulting in fewer potentially negative environmental effects. Several practices which can be used for prewetting salt are listed below.

- Salt brine is the least expensive prewetting agent. The street department can prewet salt with salt brine to increase the effectiveness of spreading salt, particularly in temperatures about 15 degrees and above. At very low temperatures the brine is less effective because of the potential of freezing hoses and valves. Salt brine offers the possibility of recycling water already containing salt to prewet road salt.

- Calcium chloride is a prewetting agent for use through colder winter temperatures. Calcium chloride's benefits, such as reducing the amount of salt and the number of re-applications of salt, can often justify the higher costs of controlled applications.
- Truck-mounted tanks can be used to prewet salt as it is spread. The tanks have been found to be more effective than prewetting salt in the stockpile or during truck loading with either hand-held sprayers or drive-under racks. Advantages to the truck-mounted tanks are a more even distribution of the prewetting solution throughout the salt and no leakage from the truck box.

The cities of Canton and Springfield use calcium chloride to prewet salt. The City of Canton uses prewetting only when temperatures are below 25 degrees. The City has found prewetting to be most effective at the lower temperatures. Springfield does not state a specific temperature for use of calcium chloride prewetting, it is used when necessary.

The Minnesota Best Practices Review described the salt brine system production tank and related costs in 1993. "The salt brine system production tank produces the brine, using a hydrometer to measure the salt concentration (a 23 to 26 percent salt concentration). Once produced, the salt brine is pumped into a 2,000 gallon storage tank. Operators use a lift

pump attached with a quick-coupler system to fill up the individual tailgate tanks. Once in the tanks, the salt brine flows through a nozzle to the auger, spraying just before it drops to the spinner.

R11.37 The City of Youngstown should investigate the potential of prewetting road salt either prior to placing in the trucks or as it is spread. The street department should collect and recycle runoff to prewet salt before spreading it on the road. Another alternative is to collect runoff for treatment at the wastewater treatment facility. The amount of salt the City uses should be reduced because less salt is needed to cover the application area.

Financial Implication: To implement this recommendation, Youngstown would need to purchase brine production and storage tanks for the streets facilities at an estimated cost of $7,200. In addition, each of the 16 snow and ice vehicles would need to be equipped with a tailgate tank which costs approximately $950 each. Therefore, the total one-time implementation cost associated with this recommendation would be $22,500.

C. Street Maintenance and Repairs

Background

The street department is responsible for completing road maintenance services in an effort to reduce hazardous conditions. The department is responsible for filling and patching holes, sealing cracks, and sweeping City owned streets and highways. These tasks are performed in an effort to prolong the life of the City street infrastructure. The City's main streets are considered top priority, and side streets are of secondary importance. The department's scope of work is limited to completing minor repairs to City roads, bridges and highways. Road resurfacing is coordinated through the engineer's office and is contracted out to private vendors.

Summary of Operations

The majority of the street maintenance program is performed during the spring and summer months. During this time, the department dedicates a significant amount of time to filling potholes which have developed during the winter. The number of potholes that develop is directly related to the harshness of the winter. Potholes are filled at the request of citizens, the police department, and as a result of visual inspections by department personnel. A crew can be assigned a specific obstruction to repair or it can be assigned a stretch of road in which the crew is required to patch all visible potholes. The department does not track the number of potholes, lane miles of road repaired or the type and amount of material used. The department does not perform crack sealing nor does it dedicate much time street sweeping. Both crack sealing and street sweeping can extend the life of a road and help prevent the formation of potholes.

Performance Measures

The following is a list of performance measures that were used to assess the street maintenance program:

- Assessment of the coordination between the street and the engineering, permits, and inspections departments in regards to the resurfacing program
- Efficiency and effectiveness of pothole filling techniques, technology, and use of equipment
- Assessment of the priority levels assigned to various street maintenance functions
- Assessment of the performance measures used by the street department.

Findings/Commendations/Recommendations

F11.63 In 1997, the street department dedicated approximately 25 percent, or a total of 14,440 man hours, to filling potholes. Street maintenance has the highest regular hour labor expense of all the functions of the department and has the lowest amount of overtime accumulated, 893 hours in 1997, when compared to other departmental activities.

F11.64 The street maintenance program is primarily reactive and concentrates mainly on filling potholes. Potholes are filled at the request of citizens, the police department, and as a result of visual inspections made by department personnel. When the department is notified about the existence of a pothole, it is documented on a work order form which is given to a crew for completion. The department does not keep track of the total number of potholes reported. The work orders are not logged into the computerized data base until they are completed. When the work order is entered into the computer, the name of the responding crew, the date the obstruction was reported, the date the repair was completed, and the location of the work is recorded. The department does not keep track of the total number of potholes in need of repair or the number of lane miles that have been serviced.

R11.38 The street department should revise its work order processing system. Rather than waiting until a work order is completed, the department should enter each request into the database as it is created. Entering all the work orders into the data base could allow the department to plan more efficiently. The City of Youngstown completed about 1,700 work orders in 1997. However, the total number of work orders generated is unknown, which limits management's ability to determine staff productivity and its ability to make effective decisions regarding the needs of the street department. If all the work orders are entered into the data base, they could be tracked by geographic location, and the work could be grouped before designating crews for assignments. Implementing this practice could lead to an increase in efficiency and productivity. Also, this information could be used by the engineering, permits, and inspections department to more effectively plan and schedule road resurfacing projects.

F11.65 The engineering, permits, and inspections department is responsible for resurfacing the street infrastructure. Each spring, the general foreman reviews the database of completed work orders and prepares a list of roads deemed most in need of resurfacing. The list is then forwarded to the engineering, permits, and inspections division for review. The engineering, permits, and inspections division revises the list and incorporates its analysis of which roads should be resurfaced and then forwards the revised list to city council for approval. Youngstown does not have a policy or methodology to help management determine which projects should be completed first. As a result, road projects are usually allocated equally between wards and are not based solely on need or condition. After city council approves the list, the street department is notified of the roads scheduled to be

resurfaced. The notification comes after the street department has already begun processing some of the pothole patching work orders. Poor communication between the street department and the engineering, permits, and inspections division and city council has led to some duplication of effort and unnecessary expenditures in the past.

R11.39 The City should develop and adopt a policy outlining a methodology which should be used to determine which roads should be resurfaced. The resurfacing projects should be based upon necessity, not equalization by ward. Under the current system, roads in the poorest condition are not being properly repaired in a timely fashion. The current system encourages deferred maintenance, increases expenditures, and decreases the department's efficiency. The street department and engineering, permits, and inspections division should cooperate and work together when developing the list of recommended resurfacing projects for city council approval. Working together would aid the street department in planning its patching program and would reduce the probability of duplication of effort. Better planning can lead to a reduction in expenditures and fewer work interruptions.

F11.66 The department uses two different methods for patching potholes, the traditional method of filling by hand and a mobile self-contained pothole mixing machine. The traditional method consists of a three-person crew, four if working in a heavy traffic area. One person drives the truck with the pothole patching material in the back and two laborers walk behind the truck. One laborer fills in the hole while the other tamps down the pothole filler. In heavy traffic areas, a fourth worker follows the crew in a second truck to act as a protective shield and to warn approaching traffic of the workers ahead.

The department also uses two mobile self-contained pothole mixing machines known as patch mobiles. According to the general foreman, the City paid approximately $38,000 for each machine which mixes the filler on site by heating the tar. After the mixture is prepared, it is blown into the obstruction. This method requires two workers, three if in a heavy traffic area. One person pulls the patch mobile while the other one operates the machine. The process has several advantages including not requiring tamping, using a slightly thicker mixture and having a longer repair duration. However, the patch mobile method is more time consuming than the traditional method.

F11.67 There are three types of material, hot patch, cold patch, and high performance mix (HPM), that can be used to complete pothole repairs. Each material has its advantages, disadvantages, and limitations. Hot patch costs approximately $27 a ton and is available from April to November. According to the Canton public works superintendent, hot patch is the best material to use and is the most durable. Cold patch is more expensive, approximately $35 a ton, and contains more chemical additives allowing it to remain pliable at colder temperatures and is used during the winter months when hot patch is not available. High performance mix is an asphaltic material which has the ability to withstand very cold temperatures. The mix is more expensive than hot patch or cold patch, approximately $40

a ton, and is more difficult to work with. However, repairs completed with HMP last longer than cold patch and can be completed when moisture is present in the obstruction. The patch mobile uses hot patch that has an asphalite emulsion mixed into it. According to the City's patching material purchasing records, the emulsion costs approximately $1.60 per gallon. Use of the emulsion creates a slightly thicker mixture which increases the durability of the patch.

F11.68 **Table 11-27** shows which pothole patching methods are used by each city. All of the cities use the traditional method to repair obstructions. To complete repairs using the traditional method, hot patch and either cold patch or high performance mix is used. The type of patch used is determined by the weather.

Table 11-27: Comparison of Pothole Patching Methods Used By the Peer Cities

	Youngstown	Canton	Lorain	Springfield
Traditional method of filling by hand	Yes	Yes	Yes	Yes
- Size of crew	3	2 - 3	2	3
-Vehicle(s)/equipment	dump truck, shovel, & tamper	dump truck, shovel, tamper, & roller	dump truck, shovel, & tamper	dump truck, shovel & tamper
Material used				
- Hot patch	Yes	Yes	Yes	Yes
- Cold patch	Yes	Yes	Yes	No
- HPM	No	Yes	No	Yes
Directly dispense hot patch	Yes	No	Yes	No
- Size of crew	2		2	
-Vehicle(s)/equipment	truck & portable patch mobile unit		hot patch truck	

Sources: Youngstown City street department; peer city public works directors

In addition to using the traditional method, Youngstown and Lorain also use equipment designed to directly dispense hot patch into obstructions. Both the street department commissioner in Lorain and the general foreman in Youngstown agree that repairs made by dispensing hot patch directly last a lot longer than patches created using the traditional method.

F11.69 In Youngstown, the vast majority of the repairs are completed by three-person crews using the traditional method. Youngstown restricts the use of the patch mobiles to highway repairs. According to the general foreman, there are not enough available man hours to use the patch mobiles more frequently, even though the patches created are more durable and last longer than the traditional method patches. Yet, certain inefficiencies in manpower allocation, identified in other department functions, may provide sufficient additional time

for patch mobile use (see **F 11.43**). The department does not have any statistics or time studies which indicate that overall the traditional method is more efficient.

Unlike Youngstown, Lorain directly dispenses hot patch whenever possible using one dispensing machine which is mounted to a city-owned vehicle. Patches created using the traditional method frequently have to be revisited and built up, which decreases efficiency, lowers productivity, and increases material consumption and expenditures. The machine used in Lorain costs approximately $35,000 and is very easy to transport. A substance known as tack is used to fill the obstruction before the hot patch is added. Tack costs $.95 per gallon and is approximately 60 percent cheaper than the asphalite emulsion used by Youngstown which costs $1.60 per gallon.

R11.40 The City of Youngstown should increase its usage of the patch mobiles it owns. Repairs made using these machines are more economical and more durable than repairs made using the traditional method. A two person team can operate the mobile and create long lasting patches. Increasing the use of the patch mobile could lead to reductions in labor and material costs while increasing the amount of time available for preventive measures such as crack sealing and street sweeping.

Financial Implication: Currently, it costs the City approximately $36 an hour to have a crew complete patches using the traditional method. Increasing the use of the patch mobile would allow the City to reduce the labor costs associated with pothole repair to $24 an hour. Utilizing the 14,440 man hours spent on street maintenance recorded in 1997 (see **Table 11-4**), the City would realize an estimated annual savings of $170,000 by utilizing the patch mobiles instead of the traditional manual method, assuming the same level of service. Utilizing the patch mobiles would provide an opportunity for the department to increase its level of service related to street maintenance and produce more durable repairs.

F11.70 The street department does not perform crack sealing. According to the general foreman, crack sealing is not performed by the department because it does not have a machine specifically designed to complete this task. However, it was inferred by the general foreman that the patch mobiles could be used to seal cracks, even though it is not specifically designed to do so. The cities of Lorain and Springfield perform crack sealing in an effort to prolong the life of the road infrastructure.

R11.41 The City of Youngstown should incorporate crack sealing into its street maintenance program. Sealing joints and cracks in paved streets keeps moisture out of the pavement and reduces the likelihood of a pothole forming. This preventive measure can extend the useful life of street pavement and can lead to a reduction in expenditures. It is more efficient and cost-effective to fill and seal cracks than it is to complete major road repairs and pothole patches. The department should conduct a cost benefit analysis to determine if purchasing specific crack sealing equipment will produce better results than using the current patch mobile for this function.

Financial Implication: According to the peer cities, the cost of a sealing machine ranges from approximately $17,000 to $23,000. If the department decides to purchase a machine designed specifically for this type of repair, the cost should be offset by the savings generated from increasing the useful life of the road surface. A company that handles street maintenance equipment estimates that a crack sealing program could extend the useful life of the road surface by three to four times that of an unsealed road surface. An adequate estimate of the cost avoidance the City could realize by implementing a crack sealing program could not be determined due to a lack of financial and operational data related to street maintenance.

F11.71 Street sweeping can extend the life of a road and can help prevent the formation of potholes by removing debris and tiny stones. When these materials are not removed, they have the potential for working their way into existing cracks and potholes and can cause further deterioration.

In 1997, the street department used approximately 5.9 percent of its total labor hours for street sweeping. The City's goal is to have every street swept at least once a year. Currently, some of the downtown streets are being swept more than once a year while some of the streets are not swept at all. According to the general foreman, the department cannot achieve this goal because of a lack of man hours. However, the department has not developed an action plan, designed routes nor adopted any performance standards in an effort to achieve the City's goal.

F11.72 Street sweeping is performed in each of the peer districts. The City of Springfield contracts out its street sweeping, while the Cities of Canton and Lorain both perform the function in-house. The following table illustrates each district's street sweeping activities.

Table 11-28: Peer City Street Sweeping Activities in 1997

	Youngstown	Canton	Lorain
Number of hours used for street sweeping in 1997	3,495	7,628	3,840
Number of center lane miles swept	418	1219	880
Number of times each road was swept	<1	3	4
Number of center-lane miles swept per hour	.12	.48	.92

Source: Youngstown and peer city street departments

Based on the information in the table, it appears that Lorain has the most efficient street sweeping operation. Lorain is able to sweep almost one mile per hour and manages to sweep each street in the City at least four times. In contrast, it takes Youngstown over eight hours to sweep one mile, based on the information which was provided by the street department.

R11.42 The street department should focus on improving its street sweeping operation. Through raising productivity levels to meet those of the peer cities, the department could, in the same number of hours, sweep between 1,678 and 3,215 miles of road or four to seven times the current road miles swept. There are a number of factors which can impact how much work is being accomplished. Some of those factors include: the type of equipment used, how the streets are being swept, the number of times and area is swept before it is deemed cleaned, the implementation of productivity standards, and planning. Developing routes for the sweepers which contain mostly right turns can improve performance by minimizing conflict with other traffic and by allowing for continuous sweeping. The American Public Works Association recommends sweeping only along the gutter-lines rather than from curb-to-curb and using only one pass because 97 percent of the street debris is found within 40 inches of the curb. When productivity standards are adopted and applied equally, each sweeper is aware of what is expected of him and the level of cleanliness that is desired. It appears that the department has an adequate number of man hours and advances can be made without increasing expenditures.

D. Demolition

Background

The demolition of houses is performed to maintain a safe environment for citizens and to have neighborhoods free of uninhabitable and unsafe housing structures. The City has experienced a dramatic decline in the economy over the past thirty years due to lost City revenue and lost employment after the steel mill closures in the 1970s. The mill closures negatively impacted the population of the City, which has decreased by nearly 47 percent. The decrease in population gave rise to an overabundance of abandoned and uninhabitable homes throughout the City. In an effort to address the problem, the department has taken on the task of demolishing structures. The City also hires private contractors to aid in the demolition of homes.

Summary of Operations

The department is responsible for the demolition and the subsequent clearing of houses deemed to be unsafe, uninhabitable or a nuisance by the housing code enforcement division. The department performs demolitions using city-owned equipment and vehicles and a crew consisting of four workers and a foreman. The housing code enforcement division falls under the authority of the community development agency (see organizational chart in **engineering, permits, and inspections section**). Inspectors from the housing code enforcement division conduct routine searches of the City for homes that are vacant or unsafe. The housing code enforcement division, along with the street department, receives citizen complaints and reports of such homes from council members and the mayor.

The housing code enforcement division determines if a home should be condemned. When that happens, the housing code enforcement division must do a title search of the property to find the homeowner and send a 30-day notice regarding intent of demolition to the homeowner. Pictures of the home are then taken and sent to the Ohio Historical Society in Columbus to determine if the home is of any historical significance. Finally, a notice is published in the Vindicator Newspaper stating the City's intent to demolish the house.

During this time frame, a homeowner may request that the appeals board prevent the demolition. If the owner intends to make the necessary repairs to bring the home up to code standard, the board will issue a temporary restraint on the work. Homeowners may also take responsibility to demolish the home themselves.

The City fire chief also has the power to condemn any home or request a home be demolished as a result of fire damage. Condemned homes still must go through the same process noted above before actual demolition can be undertaken. However, in cases of severe fire damage, the fire chief can

declare a home an immediate threat, effectively bypassing the standard process. The fire department's practice is to consult with the homeowner prior to making such a declaration if the owner can be located in a reasonable period of time.

The City attempts to collect the cost to demolish a structure from the property owner. If a private contractor performs the demolition, the engineer's estimate for the structure is sought for collection. For work performed by the street department, a predetermined formula is used by the City to calculate the amount to be collected from the property owner. The billing cost is then turned over to the community development agency, either by the department or by the housing code enforcement division. The community development agency forwards the billing documentation to a collection agency.

Performance Measures

- Efficiency of the City in demolishing homes as they are condemned
- Assessment of the demolition process, including equipment and current technology, performed by the department
- Effectiveness of the method used in transporting equipment to work sites on a daily basis
- Effectiveness and efficiency of the department demolition crew
- Assessment of the average number of days it takes to complete the demolition of a structure
- Assessment of the method used in seeking reimbursement of the department costs from CDA
- Assessment of the method of collecting demolition charges from homeowners
- Effectiveness of demolition expenses being assessed to the homeowners property tax records

Findings/Commendations/Recommendations

F11.73 Currently, there is a backlog of houses waiting to be demolished within the City. Approximately 500 total homes are scheduled for demolition, with approximately 200 homes being added to the list annually. A complete listing of homes waiting to be demolished is maintained by the housing code enforcement division. The street department is unable to keep up with this pace. The street department demolished 151 houses in 1997 and 116 in 1998, a decrease of 23 percent. Private contractors have been hired by the City in the past to aid in demolition and decrease the backlog of houses waiting to be demolished, but the awarding of contracts to private vendors has been minimal for a variety of reasons (see **F11.74** for further discussion regarding the awarding of contracts). Most sites become vacant lots which the City must maintain through the vacant lot management program. (See **vacant lot management** section.). **Table 11-29** compares significant demolition statistics of the department and the peer cities.

Table 11-29: Demolition Comparisons

	Youngstown [1]	Canton	Lorain	Springfield
Number of houses currently awaiting demolition	416	15	15	2
Number of houses added to demolition list annually	200-300	100	20	30
Number of homes demolished in 1997	198	48	0	52
Total charged for demolition costs in 1997	$480,234	$96,298	$ 0	$152,278
Average demolition cost per house in 1997	$ 2,425	$2,006	$ 0	$2,928
Number of homes demolished in 1998	116	42	3	57 [2]
Total charged for demolition costs in 1998	$169,953	$91,146	$21,321	$326,002
Average demolition cost per house in 1998	$ 1,465	$2,170	$7,107	$5,719[3]

Source: Interviews with street department and public works management

[1] Youngstown uses private contractors in addition to an in-house demolition team

[2] Includes structures such as garages and porches in addition to homes

[3] This cost represents demolition costs with and without asbestos removal. The average cost for demolition of a residential structure is $2,584. However, asbestos removal cost can double this price.

F11.74 The City of Youngstown has experienced difficulties when bidding out demolition work to private contractors, resulting in increases in the number of homes waiting to be demolished in 1998. Youngstown is the only City among the peer cities that uses both in-house and contracted demolition teams. Each peer city elects to contract out the demolition of structures because of the small volume of work required each year. Over the past two years, 172 homes were demolished by the City of Youngstown street department and 51

were demolished by private contractors. In early 1998, no contracts were bid out by the City due to the lack of available funding. Upon receiving funds, the housing code enforcement division attempted to bid out demolition projects, but contractors had trouble meeting the engineer's estimated costs. Other complications included contractors' inability to comply with bid specifications, inability to get the proper bonding or necessary insurance and the withdrawal of an approved bid by the law department due to contractual language.

In addition, the City does not have a flexible bidding process when bidding out demolition work to private contractors. The board of control, comprised of the mayor, the finance director and the law director, has the authority to accept a contract on behalf of the City, although council must approve it. The board of control's current practice requires contractors' bids to be at a cost equal to or less than the estimated cost as presented in the bid specifications. If the lowest bid does not meet these requirements, the board will not award the contract and the results of the bidding procedure are dismissed. This contractual inflexibility caused the City to reject two bids because both were higher than the engineer's estimate by $3,750 and $4,450, respectively. Furthermore, the method for estimating costs does not appear to justify such a stringent bidding requirement. Estimated costs, which are established by the demolition enforcement agency, are based on historical costs and the experience of the agency employees. No attempt is made to gather private industry prices or information.

R11.43 The City of Youngstown should consider making the bid acceptance procedures less stringent to attract the maximum number of bidders and increase the City's flexibility regarding the bid acceptance process. Hiring private contractors to demolish houses is a means of decreasing the number of condemned structures awaiting demolition. Ohio Revised Code (O.R.C.) § 153.12 allows for an entity to accept a contract if the bid is not in excess of the estimated cost of the project by more than 10 percent. The board of control should become more flexible in accepting contracts under the guidance of this O.R.C. section, and potentially speed up the bidding process by eliminating the necessity of having to rebid contracts that do not adhere to the current method. For example, the City of Cleveland does not automatically reject submitted bids that are not less than or equal to the estimated cost as outlined in the legal bid request. Bids can be approved if they meet all the outlined requirements and stay below the 10 percent excess cost threshold as outlined in the O.R.C. In addition, the demolition enforcement agency should develop a more accurate and reliable procedure for establishing the engineer's estimate by using current industry practices and by seeking current market values on an individual structure basis.

F11.75 Bid requests issued in the City of Youngstown do not convey the specifics of the work to be performed and do not establish an engineer's estimate, only indicate the number of homes to be demolished. Instead, the responsibility is placed on the contractor to determine the work required to complete the job without the benefit of a cost comparison justifying

amounts charged. Current demolition bidding specifications state the expected work to be performed by the contractor and an engineer's estimate (see **F11.80** for details). The current method of figuring demolition fees per structure is based on the number of tri-axle loads taken to the landfill.

R11.44 The housing code enforcement division should consider implementing a request for proposal practice for housing demolition contracts. For example, the City of Springfield issues Requests for Quotes (RFQs) that are calculated on cubic foot area. Dimensions are compiled from the records of the county auditor's office and form the basis for the amount of the payments to the contractor. This practice allows flexibility by increasing the number of interested contractors. Also, this practice may allow contractors the freedom to include additional work to the usual demolition contract, such as seeding the lot and planting trees. Certain stages of the demolition process could be eliminated and completed by the street department to control costs.

F11.76 The department is required to obtain a building permit from the bureau of building and housing prior to the demolition of all homes or the clearing away of any debris or foundations left by fire damaged structures. Because both are City departments, the bureau does not charge the street department the established fee for the permit. The City does not include the price of the permit in the assessment total.

R11.45 The department should seek reimbursement from the community development agency for all actual costs incurred in performing demolition (see **R11.48**). Funds for this should be transferred from the special revenue fund and into a general revenue fund and should include permit costs.

Financial Implication: Based on an average of 160 demolitions annually and a permit cost of $35 per structure, the City could potentially generate an additional $5,600 annually by assessing permit fees.

F11.77 Prioritizing condemned houses awaiting demolition is the responsibility of the housing code enforcement division. The division considers it to be a joint effort with input from the street department general foreman, the mayor and city council. The housing code enforcement division prioritizes a list of ten to twelve houses which is presented to the department for demolition. The department is also given a demolition slip for each house. The list is then prioritized by the general foreman and the demolition construction foreman to determine the exact order in which the houses will be taken down. Department prioritization consists of the following variables:

- Is the home on the list due to fire or immediate safety or health reasons?
- How long has the house been on the list?

- ! Which employees are available to work and what is their experience in performing demolition?
- ! Where is structure located in relation to surrounding homes?
- ! What is the influence of the mayor or city council?

Fire damaged structures that have been deemed an immediate threat by the fire chief receive precedence, meaning they are moved ahead of the other structures to the top of the list and are taken down as soon as possible.

F11.78 The streets department does not appear to be using resources cost-effectively to expedite the City's demolition process. The street department demolition crew normally consists of four employees and the demolition foreman during the teardown and cleanup stages of the demolition process. The four person crew performs the following job functions:

- ! One heavy equipment operator drives a tractor-trailer with an excavator on it to the job site and operates the excavator during the demolition (tearing down and cleaning up) process.
- ! One laborer is needed to spray water (from a nearby hydrant) over the house and its debris during the tear down and removal stages. This person is required to be on-site for the entire time to hose down the structure, limiting the amount of dust which is produced to comply with an EPA ruling on lead levels in the area. This requirement has limited the performance of demolition work during the winter months.
- ! Two tri-axle dump truck drivers are used to haul away the debris. Trucks may also be parked next to any nearby home to shield them from falling debris.

The department demolishes and clears homes in three steps. First, an excavator tears down the house. Any concrete from a driveway or porch is placed into the foundation, while the foundation walls are pulled in. Next, any wood, shingles, plaster and other non-cement debris is removed from the site and taken to the landfill. Any dirt near the site is used to fill in the foundation of the house as best as possible. Finally, after the site has had a few weeks to settle, a final grade is performed. Dirt is brought in to smooth the lot to an appropriate height, ensuring proper drainage. A dump truck filled with dirt hauls a trailer loaded with a bulldozer between sites. The final grade is performed by a crew of two workers. One worker hauls the equipment between sites and operates the bulldozer, while the other worker picks up any litter that may be on the lot and acts as a safety-guide for the bulldozer operator.

The City could eliminate the laborer position in charge of hosing down debris and assign one of the two dump truck drivers this responsibility while they are waiting for their trucks

to be filled. In addition, the City could potentially eliminate one of the positions that makes up the two man crew responsible for performing final grade activities by changing its working procedures. The general foreman has stated that it is departmental practice to have a second worker at the site for safety reasons, but there are no OSHA or union standards that require a bulldozer operator to be accompanied by an additional employee.

R11.46 The department should consider a one person crew to perform the final grading. As a result, one employee would be available to perform other job functions of the department, or if there is ample equipment, the worker could operate a second grading crew. The implementation of a one person crew would reduce the department's cost of performing demolition. In addition, the street department should consider cross training both tri-axle dump truck drivers on the responsibilities of the laborer position. The drivers could perform the laborer duties of spraying water over the house and its debris during the tear down and removal stages while waiting for their trucks to be loaded.

Financial Implication: Eliminating the worker position that performs final grade activities for 160 dwellings could result in a savings of approximately $5,123 in salaries and benefits, based on two hours worked at each site at $11.86 per hour. By eliminating the laborer position for both tear down and haul out of debris for 160 dwellings, the City would realize a savings of approximately $40,000 in salaries and benefits, based on 16 hours worked at each site at $11.86 per hour

F11.79 The department's current practice of demolition equipment management is to transport all equipment to the job site each morning and then back to the street department at the end of each day. Equipment is not left overnight at job sites due to past incidences of equipment vandalism and theft. Since the street department is responsible for the cost of any repairs that may occur, management does not feel this is a cost efficient option. However, the current practice is causing the department to lose five man hours of productivity each day. Contractors at other large urban cities, such as the City of Cleveland, may leave machines overnight depending upon the safety conditions of the neighborhood. For larger job sites, including commercial structures and apartment buildings, the City of Cleveland will typically leave larger equipment, such as cranes, on site until the job is completed.

R11.47 The City of Youngstown should consider other equipment management options to increase the street department's productivity regarding the demolition function. Alternative methods may include coordinating a cooperative agreement with the City's police department to monitor the equipment or parking the equipment in a lighted, more secure area closer to the work site.

F11.80 The streets department has not sought sufficient reimbursement of demolition work performed by the community development agency, a City department that monitors and disburses federal monies on behalf of the City, for the actual costs incurred on each demolition site. The amount of reimbursement sought by the street department is not based on the actual costs incurred. The cost is determined by a formula based on the cost of disposing of the building materials. Dump slips are obtained by the drivers taking the loads of debris to the landfill. The landfill charges $75 for a tri-axle dump truck load and $100 for a dump-trailer load. The department, in turn, charges $100 and $150, respectively, for these loads by seeking a reimbursement from the community development agency for total expenses utilizing the following formula:

Number of loads x Applicable Load Charge ($100 or $150) x 2 = Reimbursement

Implementation of this formula attempts to capture all department costs, such as employee wages, fringe benefits and any overhead costs, not just the amount charged by the landfill. When the amount is determined, the street department clerk prepares a purchase order and submits it to the finance department. A minimum charge of $500 has been established for each site.

A sample of houses that had been demolished in the years 1997 and 1998 was selected for use in **Table 11-30**. The table below presents the averages for each sample as well as the overall average.

Table 11-30: Ratios for Demolition Performed In-house

Year	Average Expense per house	Average Amount Charged	Difference	Average Days to Complete	Average Number of Loads	Average # of Loads per Day	Average Hours Worked per house
1997	$1,989	$1,414	($575)	1.99	8.00	3.97	63.04
1998	$2,465	$1,725	($740)	2.52	8.38	3.39	92.61
Average	$2,320	$1,630	($690)	2.36	8.26	3.50	83.61

Source: Individual demolition files (street department)
Note: 1997 consisted of a sample of seven houses; 1998 sample was sixteen houses

The average expense per house reflects an estimate of expenses incurred by the street department in performing the demolition. The figures were calculated using limited documentation kept by the department for direct labor, haul-out costs, fuel and film expenses. A rate of 35 percent of direct labor was added to account for employee fringe benefits, while an additional 10 percent of wages and fringes was used for overhead costs, such as repair and maintenance expenses, and the cost of equipment use or depreciation. The average amount charged reflects the average amount sought from the community development agency for the reimbursement of street department expenses.

R11.48 The department should seek reimbursement from the community development agency for the actual costs incurred on each site. Actual costs should include all labor expenses (wages and benefits), the cost of hauling debris to the landfill, and any overhead costs incurred, such as fuel, maintenance, repairs and film. The department currently uses an arbitrary formula that does not include actual expenses in seeking reimbursement from the community development agency. As a result, the department may not be recovering sufficient revenue to recoup the actual demolition costs. By implementing a record keeping system that could track costs by individual demolition sites, the City would be able to determine the break even point of each house. The break even point indicates the threshold price at which a structure could be demolished by outside contractors at a lower cost than is currently estimated by the department.

Actual costs to perform demolitions were compared with the amount sought for reimbursement from the community development agency. As indicated in **Table 11-30**, 16 homes were reviewed in 1998 and seven homes were reviewed in 1997. In both years, the department did not seek sufficient reimbursement to cover the actual costs incurred. For 1997 and 1998, the department under charged the community development agency by an average of $740 and $595 per house, respectively.

Financial Implication: If the department assessed the appropriate charge of $2,300 per structure demolished, the City could potentially generate $368,000 annually for demolition from CDA based on 160 structures per year. Based upon the average under charge of $690 per structure, the department should realize a cost reimbursement of an additional $110,400 annually.

F11.81 The overall operation of the department's demolition function has proven more efficient when overtime is used to complete a job prior to moving on to a new site. The general foreman indicated that typical sized houses can be demolished and the debris cleared in ten to twelve hours.

In 1997, the department was able to work overtime and finish most jobs in one day. When cutbacks in non-emergency overtime were instituted, the department could no longer complete a site in one day. As a result, the demolition crew had to load all the equipment each night and return to the same site the next day for a few hours of work. The demolition crew would return to the street department facility midday instead of beginning a new site where the equipment would have to be unloaded and reloaded again. The department incurs unnecessary downtime each time equipment has to be loaded onto trailers and moved to another location. By working overtime for demolition purposes, the downtime associated with equipment management appears to have been reduced. The increase in the time required to demolish abandoned houses between 1997 and 1998 may have resulted from overtime use restrictions.

R11.49 The City should consider re-evaluating overtime authorization to expedite the demolition process and decrease the backlog of condemned homes. Authorizing employees to work overtime would also decrease the downtime associated with equipment management.

F11.82 The City of Youngstown has not effectively addressed the abundance of condemned houses awaiting demolition. Currently, some homes have been on the demolition list for up to five years, depending on the condition and severity of the damage exhibited by each home. In an effort to address the abundance of condemned houses awaiting demolition, the cities of Springfield and Hamilton have adopted an ordinance that prevents structures that may have a blighting impact on the surrounding properties and neighborhoods from avoiding demolition for longer than fifteen months. In these cities, the owners of structures known to have been boarded up for more than ninety days receive a notice to elect whether to rehabilitate, sell or demolish the structure. All proposals are examined by the director of planning and development to determine if the owner's proposal and timetable is reasonable. If the approved proposal calls for demolition of the structure, all demolition activity must begin within thirty days. District officials in the City of Springfield have indicated that the enactment of this ordinance has significantly decreased the backlog of homes waiting to be condemned within City limits.

R11.50 The City of Youngstown should consider adopting proposals that would force action on future abandoned or otherwise blighted structures in an effort to address the amount of backlogged homes awaiting demolition. Forcing action on homes after a shorter period of time may help to demolish future structures in Youngstown within a reduced timeframe. This action may also force the owners to rehabilitate or sell structures that otherwise would remain on the City's list of structures waiting to be condemned.

F11.83 The City uses a combination of in-house demolition and outside vendors to demolish houses. Forty-seven houses were completely demolished by outside contractors in 1997. In 1998, five contracts out of 25 total houses were put out to bid and awarded to private contractors. Two of the contracts were started during the fiscal year, while the other three were not undertaken until 1999. Of the two initial contracts, one was considered 75 percent complete at the end of 1997. The other contract, started in 1998, was considered to be 25 percent complete by the end of the year. **Table 11-31** shows demolition contracts awarded in 1997 and 1998, the number of structures demolished in each year and the average cost per house for demolition.

Table 11-31: 1997 and 1998 Outside Contracts for Demolition

	1997	1998
Number of contacts awarded	2 - 25 houses/contract	5 - 25 houses/contract
Contract amounts	$47,650 37,400	$56,950 76,900 57,350 59,455 54,100
Average cost per house per contract	$ 1,906 1,496	$ 2,278 3,076 2,294 2,378 2,164
Actual number of houses demolished	47	N/A
Estimated number of houses demolished	N/A	24

Source: Housing Code Enforcement Division

It appears that the City of Youngstown could decrease the backlog of homes waiting to be demolished each year by operating two demolition crews instead of one at approximately the same cost per crew that outside vendors charge. The average in-house cost to demolish a dwelling is $2,465, compared with the average price charged by outside contractors to demolish a house in 1998 of $2,438.

R11.51 The City should consider using in-house crews to demolish the backlog of homes and contracting out the demolition of those homes that are recently condemned. Although the department has the necessary equipment to operate two partial demolition crews, the demolition foreman indicated that it is not feasible due to limitations in staffing. With the department's current work force and work load, it would need four additional employees to staff two crews. Two crews would enable the department to send out one crew to tear down houses while the other crew hauled debris. If two additional pieces of equipment were purchased, a semi-tractor trailer and a tri-axle dump truck, and four employees were reassigned, the department would be able to operate two completely separate crews. Two crews would enable the City to address the backlog of abandoned homes awaiting demolition in a more timely manner. The additional cost of equipment would be offset by increased revenue from demolition fees.

F11.84 Millstone & Kannensohn Attorneys perform collections on behalf of the City of Youngstown for expenses assessed against the homeowner. Homeowners are assessed a

minimum charge of $500 for the demolition of the site. Cost charges associated with the demolition of houses are forwarded by the community development agency to Millstone and Kannensohn. The City turns all demolition expenses over to the attorneys for collection.

Table 11-32 shows the amounts forwarded to the collection agencies for demolition work performed by the street department and private contractors and for demolition related costs incurred by the City for title searches, dump fees and asbestos testing and abatement. The table also shows the demolition assessment amounts collected and the total demolition amounts outstanding.

Table 11-32: Demolition Expenses turned over for Collection

Type of Expense	1997	1998
Demolition performed by the department	$ 280,000	$ 152,700
Demolition performed by private contractors	173,656	10,201
Other demolition related costs	26,578	7,052
Total expenses turned over for collection	$ 480,234	$ 169,953
Totals collected	$31,473	$49,881
Total outstanding demolition amount [1]	$448,761	$120,072

Sources: Community Development Agency: demolition collection worksheet.
Millstone & Kannensohn, City of Youngstown Collections report
Desanto & Desanto Attorneys, Accounts Receivable monthly reports
[1] As of August 31,1998, outstanding active demolition accounts held by Millstone & Kannensohn totaled $995, 843, which reflects past years uncollected accounts.

F11.85 Millstone & Kannensohn do not appear to be using all available means to actively collect the large number of outstanding active demolition accounts owed to the City. Millstone & Kannensohn charges the City a flat rate of 21 percent on collections made. The community development agency prepares a spreadsheet that summarizes all "new" completions and forwards it to Millstone & Kannensohn approximately once a month. Millstone & Kannensohn takes the information and attempts to contact the owner and set up a repayment plan. If the last known address is not correct, a collector from Millstone & Kannensohn searches the county auditor's records to find an applicable address. Because Millstone & Kannensohn does not have the capability of determining the homeowner's social security number, the search is often limited when compared with other procedures that could be used to locate an individual.

In addition, individual accounts are never deemed uncollectible and written off by Millstone & Kannensohn. After reasonable attempts have been made to reach an agreement with the property owner for a repayment schedule, Millstone & Kannensohn takes legal actions against the owner on behalf of the City. The courts will more than likely rule in favor of the

City, making a judgement against the owner in the amount of the costs incurred. However, this does not insure that the property owner pays.

R11.52 The City should reevaluate the contractors that perform collections on its behalf and ensure that the collectors are maximizing potential collection amounts. The contractor should ensure that all means are used to collect funds, from garnishment of property owner wages to ceding property to the City land bank. See **vacant property management** section for more information regarding land bank activities.

Financial Implication: The City collected only 6.5 percent of assessed fees in 1997. In 1998, 29.3 percent of fees were collected. If the City increased its collection rate to between 35 percent and 50 percent (this is the vacant lot collection rate range the City realized during the mid 1990's) of the total demolition charges, it could potentially realize additional revenue of $145,000 to $244,000 based on 1997 and 1998 amounts turned over for collection.

E. Vacant Property Management and Maintenance

Background

The City of Youngstown Codified Ordinances Chapter 1749 declares that grasses, weeds, and plants other than trees, bushes, and flowers found growing at a height exceeding ten inches in any parcel of land within the City are a public nuisance. The vacant property management program was developed by the City to minimize noxious weeds and tall grass within the City limits. Under the ordinance, it is the duty of the property owner, occupant or agent in charge of any land or premises to remove any nuisance within three days of notification of the City ordinance violation.

If the property owner, occupant or agent fails to maintain the property to City specifications, a nuisance abatement notice is mailed to the owner. The abatement notification is effective for one year after the date of notification. Any failure on the part of the property owner to maintain the property after receipt of the notice will result in the City undertaking maintenance of the property and billing the owner. The property owner is then personally responsible for the total cost of debris removal and mowing.

Prior to 1975, the City of Youngstown's health department maintained vacant lots by contracting out mowing of both vacant lots and lots with structures. After 1988, the health commissioner appointed the street department superintendent as his agent to cause all public nuisances to be removed or abated on lots within the City limits. By 1996, the sheer volume of property nuisance complaints began to overwhelm the street department. A decision was reached to divide the duties of nuisance abatement between the street department and the health department. The health department assumed responsibility for all lots upon which there was a structure while the street department retained responsibility for vacant lots.

The street department annually monitors or inspects more than 6,200 vacant lots and maintains approximately 2,500 of these lots. Though the majority of vacant lots are maintained by the property owners or neighbors, the sheer number of neglected vacant lots has become a problem. Since 1973 when the first mill was closed in the City, the additional closures of businesses, the rise of unemployment and population egress to the suburbs all contributed to the rise in the number of vacant lots and abandoned houses (see **demolition section** for more information on abandoned houses). As the City demolishes abandoned houses, the maintenance of vacant lots reverts to the street department.

In 1987, city council began charging land owners through fines for nuisance abatement activities performed by the City on privately owned property. Activities performed by the City in the maintenance of vacant lots include debris removal, grass mowing and general property maintenance. The most difficult aspect of implementing charges for property maintenance is locating current property owners to collect the cost of maintenance activities.

The street department computerized the vacant property management program through the development of a vacant lot database designed in-house in 1988. The database was developed through a lengthy process that included identifying all vacant lots in the City through a blanket inspection on all parcels of land. Lots in violation of the City ordinance were identified and entered into the database to help identify repeat offenders and to generate mowing work orders.

In general, the primary problem facing the vacant lot maintenance program is the inordinately large number of vacant, neglected lots in the City. The department has not retained exact records for any aspect of the program and now suffers from an inability to quantify program efforts, isolate costly aspects of the program, or even effectively contact vacant lot property owners. While the land bank program was developed to remedy vacant lot problems by allowing cities to foreclose on the properties and resell the land, the Youngstown land bank program is ineffectively employed.

Summary of Operations

Under the current system, the street department is responsible for the vacant property management program. A single individual, the street department's junior systems analyst (analyst), acts as administrator, data entry clerk, and inspector for the entire vacant lot management program. The analyst reports to the general foreman of the street department.

Property maintenance is performed by street department's full time employees, specifically laborers, driver/laborers, and truck drivers, and by seasonal workers. Though the department has many unfilled positions, it has hired approximately 15 seasonal workers specifically to reduce costs in the vacant lot maintenance program. The current daily job bidding system, though, allows full time employees to continue working in the vacant lot management program.

Vacant Property Management

The vacant property management program is conducted year round. Considerable man hours are expended in monitoring more than 6,200 vacant lots in the City of Youngstown. Most operations are seasonally based with the spring, summer and fall months dedicated to property maintenance. During the winter months, the database is updated and preparations are made for the next mowing season.

In March, prior to the commencement of spring mowing, inspection warnings are mailed by regular mail to all past violators. The analyst inspects the vacant lots and sends out abatement notices by certified mail to those property owners still in violation through the months of April to July. Abatement notices serve as the basis for the development of the mowing work orders. The construction foreman, who serves as the work crews' supervisor, is provided the work orders and then directs crews to begin mowing. In 1997, daily time sheets showed that approximately 4,000 man hours were dedicated to the vacant lot maintenance program. Various street department

employees including truck drivers, driver/laborers, laborers, mechanics, and garage workers perform work related to property maintenance for the vacant lot program.

When a City crew abates a nuisance on a property, it charges the known property owner $150 for each parcel of land in violation each time the property is maintained by the City. A collection agency contracted by the City sends out the account receivable bill to the property owner. If an owner does not pay the bill, the agency files a law suit against the property owner. The collection rate for vacant lot charges ranged from 35 to 50 percent in the early 1990's but has fallen off dramatically to 8.5 percent in 1997. If the charge is not paid through the suit, the City has the option of assessing the charge to the property tax records, also known as placing a lien on the property. However, the City places liens on properties very infrequently.

Land Bank

The Ohio Revised Code established a land bank program allowing cities to collect and hold (bank) vacant abandoned lands for resale. The engineering, permits, and inspections department operates the land re-utilization program (land bank) as authorized by the Ohio Revised Code (ORC) 5722, and City ordinances 96-72, 94-536, and 94-541. If a property owner refuses to care for a property or remit fines to the City, the City may foreclose on the land and place the property in the land bank. The Youngstown land bank program forecloses on properties only upon request from a buyer.

In order to bank a property, the land bank negotiator initiates foreclosures with the county prosecutor's office to obtain properties for the City. Once the land bank has received the deed for the land, the City acts as a conduit for interested parties to obtain parcels delinquent on property taxes and other assessments. Properties obtained though ORC 5722 are cleared of past due taxes and assessments.

Performance Measures

The following performance measures were used to analyze the vacant property management program:

- Effectiveness and efficiency of the program
- Adequacy of level and mix of staff
- Effectiveness of the billing and collection of fees
- Effective use of a land bank program
- Assessment of privatization

Findings / Commendations / Recommendations

Vacant Property Management Program

F11.86 In 1997, the City of Youngstown had 6,231 vacant lots cataloged in the vacant lots program database. Although the department claims to have inspected all catalogued properties, documentation to support this assertion does not exist. The 1997 catalog indicates an increase of nearly 800 lots on the program rolls from 1996. The data on the number of lots maintained by the City from 1998 is not available because the department did not keep records. The types of vacant lot property owners are described in **Table 11-33**.

Table 11-33: Number of Vacant Lots by Type of Owner (1997)

Type of Owner	Number of Lots	Percent of Total
Individuals	5,068	81.3
Companies	814	13.1
Religious	206	3.3
Public Sector	134	2.2
Utility	9	0.1
Total	6,231	100.0

Source: Youngstown Vacant Lot Report, 4/21/97

F11.87 **Table 11-34** shows the total number of vacant lots, the number of lots maintained, the number of lots for which abatement charges were billed and the total number of lots for which abatement charges were assessed against the property tax records for Youngstown and the peer cities.

Table 11-34: 1997 Peer City Comparison of Vacant Lots

	Total Vacant Lots	Vacant Lots Maintained	Vacant Lots Billed	Vacant Lot Assessed
Youngstown	6,231	2,500	1,400	0
Canton	800	368	365	502
Lorain	208	75	75	57
Springfield	104	104	0	0

Source: Peer city street departments

F11.88 As shown in **Table 11-34**, the City of Youngstown is maintaining an inordinately large number of vacant lots when compared to the peer cities. The large number of lots being maintained by the City of Youngstown is directly related to the fact that few ramifications are in place to penalize individuals not maintaining their property. The procedures in place to assess the proper charges and collect those charges are ineffective and provide a poor deterrent. Furthermore, the inability of the City to assess the charges against the property's tax records prohibits the City from foreclosing on the property and finding a responsible owner. In essence, the City has evolved into the caretaker of large tracks of vacant or underdeveloped lands. A recently enacted City ordinance allows the City to pursue a minor misdemeanor criminal charge, as well as assess a daily penalty of $100, against property owners who allow a nuisance to remain for over one year.

R11.53 The City must undertake efforts to divest the department of a large portion of the lots maintained. The City should immediately begin foreclosure proceedings on the properties of individuals unable or unwilling to pay charges for City maintenance of the vacant properties. The vacant lots should be placed in the land bank and offered, at low cost, to either residents or developers, thereby releasing the street department from the obligation and expense of caring for the property. See the **land bank** section for additional information.

The City of Youngstown must begin to systematically employ penalties allowed by the current ordinance. The City should enforce the legislation presently in effect to act as a financial deterrent which may encourage property owners to maintain their own lots. Reducing the number of properties currently being maintained by the City would not only reduce operating costs of the department, but also enable productive man hours to be reallocated to other functions within the streets department. The financial implication associated with increasing the collection rate of the abatement charges is presented in **R11.64**.

F11.89 The identification and notification of violators of the City's nuisance ordinance is a very labor intensive and time consuming process. The program begins each year with the City mailing out notices to all property owners who have been in violation of the nuisance ordinance in the past notifying them of upcoming inspections. The system analyst then performs inspections of all past offender's properties as well as all other properties within the City to identify lots that are in violation. An abatement notice is sent to property owners who are in violation of the ordinance via certified mail and a notice is placed in the local newspaper as well. The first mailing of abatement notices usually takes place in March and others are issued as the inspections are completed. Property owners have approximately two weeks to address the violation before the department will prepare a work order for the property. If a property owner can not be located, the department will not issue an abatement notice. However, the City will still abate the nuisance.

R11.54 The City of Youngstown should develop a simplified approach to notify property owners regarding the City's nuisance ordinance and abatement procedure. The City of Cleveland has developed a procedure in which a single letter is sent out to all property owners within the City each year which serves as a notice of the nuisance ordinance, as well as the abatement notice. The letter is worded so the City can maintain lots in violation for an entire year after the letter is sent. Therefore, the City is able to abate noxious weeds at the time of the violation and charge the property owner without further notification.

By adopting a similar procedure, Youngstown would not only reduce costs associated with the number of mailings, but more importantly, reduce the administrative time currently being spent on inspections and increase the efficiency and effectiveness of the program.

F11.90 As noted above, the system's analyst is responsible for the entire inspection process for the vacant lot program. Having a person specifically designated to complete vacant lot inspections is a potential duplication of effort given there are five housing code enforcement inspectors canvassing portions of the City streets daily as part of their normal assignment.

R11.55 The housing code inspectors should be responsible for identifying properties within the City which violate the City's nuisance ordinance. Properties should be identified during the daily canvassing of City streets by these inspectors. Complaints from citizens and other City employees, such as the police, should be directed to the housing code enforcement division and assigned to the appropriate inspector. The inspector's report should then be used to determine if the property needs to be abated. Work orders should be prepared for those properties needing abatement and given to the streets department for assignment. Once the work is complete, the signed work order will serve as the documentation for work performed.

F11.91 Vacant lot data is maintained in a database which was developed in-house in 1989. The database contains the following information regarding each vacant lot: lot number, parcel number, last known property owner, location of the lot, and size of the lot. The initial information was gathered through a physical street-by-street inspection of all lots within the City limits. Information on new lots is added as additional vacant lots are identified throughout the year. Although the database has fields to record the charges assessed and collected, they are not consistently used by the department. Furthermore, the department could not provide confirmation that the system was Year 2000 compliant.

R11.56 The department should ensure that any program enhancement or management system purchased, as recommended in **R11.20**, addresses all the needs of the department including vacant lot management. The vacant lot database should be used to enforce the abatement ordinance, expedite the billing process, generate invoices and work orders, and should highlight parcels appropriate for foreclosure. Both Canton and Springfield have instituted

management systems to aid in the management of the vacant lot program. Springfield's system uses Telepad computers which enables code enforcement and building inspectors to download their findings into the City's system.

F11.92 Youngstown has not developed formal policies and procedures for the vacant lot program. The absence of clearly outlined policies and procedures hinders the department's ability to effectively control vacant lot maintenance. The program, under the current structure, lacks clear direction or mission and displays marked inefficiency as a result.

The City of Canton has developed policies and procedures for its Environmental Control Program. The policies and procedures outline enabling legislation, program dates, personnel requirements, functions, standard operating procedures, equipment needs and current levels, equipment care, a list of City owned lots, and a description of the notification process.

R11.57 Youngstown should develop formal policies and procedures which would describe the priorities of the vacant lot program in relation to other functions as well as how the program should operate. The policies and procedures developed by Canton could be used as a guide. Policies and procedures should be incorporated into a manual for use by employees and supervisors and should serve as the blueprint for departmental operations. A concise plan of action is essential to ensure the program is effectively managed and operated.

The policies and procedures, and subsequent manual, should include the items listed below:

- the mission statement of the program as developed by the city council in conjunction with the program director
- a copy of the ordinance
- an overview of the program including organizational charts, functional responsibilities, staffing levels, and performance benchmarks
- program dates and personnel requirements
- operating procedures
- enforcement procedures
- equipment needs and care
- database development, updating, and uses (billing and foreclosure)
- land bank development and effective use.

F11.93 In 1998, confusion surrounding a mayoral policy on the reduction of overtime caused the fee collecting efforts and record keeping functions of the vacant lot maintenance program to be eliminated. The department did not send out abatement letters, but continued to mow the lots where weeds and grass exceeded ten inches. Department employees were assigned to areas of the City and instructed to mow any lot in violation of the ordinance but documentation on the number of lots mowed was not recorded. Because abatement letters

were not sent, the City was unable to bill for the services rendered. The mayor's office was not aware collections ceased in 1998 and the office made an assurance that collections would be performed in 1999.

R11.58 The department must ensure that every attempt is made to bill for services rendered to offset operating costs. Even in the event of future cutbacks, billing must be maintained and made a priority as any revenue received compensates the City for a portion of expenditures. The department has demonstrated the importance of the mowing function. Billing and general contact with owners must be made an equally high priority. As costs are incurred, the revenue aspect must not be ignored and continued contact will either encourage owners to assume responsibility for the lot or prepare the parcel for eventual addition to the land bank. The department must, through documentation and reporting, communicate costs, efforts, and results to the office of the mayor and city council.

Financial Implication: During 1998, the City lost approximately $210,000 in potential revenues based on 1997 records. Youngstown must ensure that records are properly maintained for the vacant lot program and that fees are collected from known property owners. The City has the opportunity to correct this oversight in 1999.

Program Operations

F11.94 The department has estimated that approximately $68,000 is spent each year to operate the vacant lot program. However, the department's estimate appears limited to the salaries and wages of employees and does not include overtime premiums for wages, employee benefits, equipment and computer costs, and other operational costs. When these factors are taken into consideration, the actual cost of the program is significantly more than the department's estimate.

In an effort to justify the fine charged against the property owners, the department prepared a Cost Operations Report in December 1997. This report concluded that it cost $147.79 to provide service to one common size lot. This figure, a composite of the operational cost, street department support cost, computer department support cost, and equipment and parts purchase, appears to be understated. **Table 11-35** presents the calculations used in the December 1997 report.

Table 11-35: Cost Operations Analysis, December 1997

Component	Per Lot Cost
Cutting Cost (4 operators , 4 tractors, 1 foreman = $2,237 per day divided by 6 productive hours each = $93.20 hourly production cost + $2 equipment insurance divided by 2 lots per hour = $47.60)	$47.60
Equipment Maintenance Cost (tireman and mechanic working six productive hours a day and the blacksmith working eight productive hours a day)	7.15
Administration Cost (systems analyst and systems aid working eight productive hours and a $25 file management and property owner preparation charge)	31.00
Advertising Cost ($4.50 advertising per lot and $3 certified mailing cost)	7.50
Computer Department Support Cost (number of reports, work orders, and abatement orders printed and maintenance and back up time)	7.14
Computer Programming and Upgrade Cost	4.97
Equipment Purchase (five-year useful life for the tractors)	4.93
Parts Replacement (25 percent of the total $150 charge)	37.50
Total Operation Cost	**$147.79**

Source: Operation Cost Report, December 17, 1997
Note: The average number of lots cut per hour was calculated at 50 lots cut per day by 4 operators or 12.5 lots per operator. The 12.5 lots per operator is divided by the productive hours per day to equal 2 lots per hour.

If the average lot cost (approximately $150) developed in the December 1997 study is applied to the estimated 2,500 lots maintained annually by the department, annual operational costs should be approximately $375,000. Capturing actual cost and operational data regarding functions and activities provides department managers with necessary information to make important cost/benefit decisions. See **R11.17** thru **R11.19** in this section for recommendations regarding information documentation.

F11.95 The City of Youngstown is spending significantly more per lot maintained than the peer cities, even using the apparently understated figure of $150 per lot. Springfield reports spending $28,515 per year to have private contractors mow 104 lots which are maintained five times per year. This equates to an average cost per lot of $54.84. Lorain reported spending an average of $51.22 per lot to maintain their 75 vacant lots.

Youngstown experiences higher cost due to the ineffective manner in which it allocates employees to the function, the significant amount of overtime used to perform services, and the absences of employee productivity benchmarks.

F11.96 The vacant property management program uses truck drivers, driver/laborers, laborers, mechanics, and garage workers to perform the mowing function of the vacant property management program. In 1997, there were 3,975 work hours allocated to the maintenance of the estimated 2,500 vacant lots. The total work hours reported include 144 to 320 hours mowing right of ways. **Table 11-36** describes the distribution of hours spent on mowing per month by type of employee.

Table 11-36: 1997 Hours by Position Spent on Mowing

Month	Truck Driver	Mechanic	Laborer	Driver/laborer	Garage Worker	Total Hours
May	0	0	0	68	0	**68**
June	34	0	91	493	20	**638**
July	46	0	168	652	36	**902**
August	77	5	351	979	69	**1,481**
September	8	5	352	38	71	**474**
October	0	16	176	184	36	**412**
Total Hours	**165**	**26**	**1,138**	**2,414**	**232**	**3,975**

Source: Street department, daily work assignment sheets.

F11.97 As a result of the most recent negotiations with the Teamsters' union, the City hired 15 seasonal employees in 1999. Seasonal employees complement the vacant lot program as work schedules are based on weather conditions and the job does not require a commercial drivers license (CDL). Seasonal employees are required to be union members and are paid at the tier one laborer rate ($8.47 per hour). Due to the union affiliation of seasonal workers, the City is required to provide full benefits to seasonal workers. Providing full-time benefits to seasonal workers costs the City approximately $1,350 monthly per worker or $60,750 for all 15 workers for a three month period of time.

Peer cities also use seasonal employees who are compensated at a rates from minimum wage to $7.50/ hour. However, none of the peer cities provide full-time benefits to their employees.

R11.59 The City should aggressively work towards removing seasonal employees from the bargaining unit. These workers are not full-time City employees and should not be extended full-time benefits. The compensation rate for this category of employees should be consistent with the average area wage for this type of work. By allowing seasonal workers to be part of the union, the department has lost scheduling flexibility. As vacant lot management is dependent upon weather conditions, these positions should only be paid for actual time worked.

Financial Implications: If the City and union agree to restructure the current practice, the department could realize an annual cost avoidance of $60,750 associated with not extending full-time benefits to seasonal employees.

F11.98 The department has used full time employees from a variety of pay grades in the past. The use of full time employees and extensive overtime has greatly increased the cost of the program. Undirected allocation of employee resources has led to the program incurring significant costs associated with overtime payments. Overtime was charged on 41 days amounting to 1,315 overtime hours (33 percent of total time)spent on mowing. Although seasonal workers were hired in 1999, the daily job bidding system allows full-time employees to also bid for the mowing jobs and, as a result of the seniority system, displace seasonal workers from the mowing function.

Table 11-37 shows the regular and overtime hours charged for mowing services by month.

Table 11-37: 1997 Month by Month Hours Spent on Mowing

	Regular Hours	Overtime Hours	Total Hours	Overtime as a Percent of Total Hours
May	32	36	68	52.9%
June	360	278	638	43.6%
July	520	382	902	42.4%
August	880	601	1,481	40.6%
September	456	18	474	3.8%
October	412	0	412	0.0%
Total	2,660	1,315	3,975	33.1%

Source: Youngstown 1997 daily assignment sheets.

R11.60 The department should effectively manage the vacant lot program to ensure an adequate level and mix of the appropriation is assigned. The department should use the seasonal workers where possible and limit higher paid employees to positions requiring specialized skills or license. The cost for mowing lots would be decreased by using individuals paid on a lower wage scale. The ability to fund additional employees at a lower rate on a seasonal basis will also reduce overtime costs by allowing the allocation of full time employee hours to other functions during regular work hours. If seasonal employees completed a total of 7,800 hours of work, or 520 hours per person times 15 persons, overtime hours within the program should be eliminated. The overtime savings should help offset the cost of the seasonal workers and allow more skilled workers to be assigned to other needed functions.

Financial Implications: Utilizing seasonal workers to perform vacant lot maintainence should allow the department to eliminate the overtime hours currently being worked to perform these functions. Annual cost savings resulting from reduction of overtime hours in the vacant lot program would be $66,262 based on the calculation made in **Table 11-12**.

F11.99 The program functions using crew of operators and a construction foreman. Operators are not required to have a CDL. The foreman remains on-site during all mowing and is responsible for assigning lots and maintaining the associated paperwork for the lots mowed during the shift. Issues regarding the productivity of foremen are addressed in **F11.16**.

Although accurate records were unavailable, the department has estimated that each operator should complete maintenance tasks on 12.5 lots per day. The department does not document the number of lots each operator is assigned to and maintains daily. Based on the high cost per lot and the significant number of hours charged to the program during past years, there seem to be productivity issues regarding the work being performed.

R11.61 The department should immediately begin tracking hours worked and the number of lots completed by each crew. From the data, the department should establish performance benchmarks and employees should be evaluated on their ability to complete assignments. A comprehensive annual employee evaluation, including general job performance, may be used as a basis for promotion decisions, bonuses or other rewards, thereby providing employees with an incentive for good performance. In addition, information gained through the study might be used by the City to determine optimal employment numbers and crew size.

Billing and Collections

F11.100 City of Youngstown Ordinance 1749 allows the City to assess property owners with a $150 fine for vacant lots and a $100 fine for contiguous properties for not maintaining their property. **Table 11-38** compares the amounts charged by the City of Youngstown, the peer cities, and the City of Cleveland to abate nuisances from properties.

Table 11-38: Comparison of Charges to Abate Weeds and Grass

City	Charge to Abate	Average Charge per Lot
Youngstown	$150 first, $100 contiguous	$150
Canton	Labor-$16/hour; Administrative-$30; equipment fees	N/A
Lorain	$150 per hour with a one hour minimum charge	$150
Springfield	Labor-$22/hour; $100 for finance office charge	$144
Cleveland	$.04 per square foot	$200

Source: Peer city interviews
N/A - city could not provide data

Although Youngstown's charge to abate nuisances appears consistent with the peer cities, it has been documented throughout this section that reliable and accurate information is not available to determine if the rate fully covers the services provided by the City.

R11.62 Once the department has implemented an effective manner of capturing the true cost of the vacant lot program, the City should revisit the abatement charge on an annual basis to ensure services rendered are being properly billed for.

F11.101 **Table 11-39** shows the amount billed and collected, percentage of amount collected, and amount outstanding for the past nine years:

Table 11-39: Collection Claims Collected versus Outstanding Collections 1990-1998

Year	Annual Billing	Amount Collected	Amount Collected as Percentage of Annual Billing	Amount Outstanding
1990	$98,958	$36,335	36.72%	$62,623
1991	$108,155	$61,969	57.30%	$46,186
1992	$97,793	$46,149	47.19%	$51,644
1993	$128,836	$45,125	35.03%	$83,711
1994	$151,998	$79,556	52.34%	$72,442
1995	$197,519	$33,204	16.81%	$164,315
1996	$196,645	$39,382	20.03%	$157,263
1997	$122,826	$10,537	8.58%	$112,325
1998	N/A	N/A	N/A	N/A
Total	$1,102,730	$352,257	31.94%	$750,509

Source: Vacant Property Management Collection Claims as of 01-31-1999.
Note: N/A = The city did not bill for the service.

The current billing process in place within the vacant lots program is ineffective in recouping the cost of services rendered through the program. Of the estimated 2,500 lots maintained by the City, abatement charges are only billed to approximately 1,400 lots. The remaining 1,100 lots represent properties whose owners are not known or the last known owner is deceased. The ineffectiveness of the billing process is demonstrated in **Table 11-39**, which indicates that the amount billed has decreased since 1995 although the number of lots being maintained has increased significantly. Using the department's estimate of 1,400 lots which charges are billed for and the $150 per lot charge, the department should have had total billings of $210,000 for 1997 instead of the actual billings of $122,826.

R11.63 The department needs to institute adequate procedures to bill for services rendered. This begins with the department maintaining accurate and detailed records on services rendered on each lot. Once services have been rendered, the property should be charged the appropriate amount regardless of whether the current owner is known or not. All reasonable efforts should be made to locate the property owner and to seek payment of the respective abatement charges. If collection of the charge is not possible, the abatement charge should then be taken through a delinquency process which includes assessing the charge against the property's tax record and, after the required amount of time has elapsed, foreclosing on the property. Foreclosed properties should be placed into the City's land bank in an attempt to find a responsible owner.

F11.102 The City has contracted with a local attorney's office to provide billing and collection services for various City departments including the vacant lot program. The contract with the agency specifies that the City will reimburse the agency 21 percent of the revenue collected. The vacant lot program provides the agency with a listing of the appropriate properties, last know property owners and charges to be collected.

As **Table 11-39** indicates, the amount of vacant lot charges collected during the past four years has decreased considerably. The percentage of billings collected in 1997 was 8.6 percent as opposed to the 52.3 percent collected in 1994. This drop in collection rate could indicate the agency is not actively pursuing every opportunity to maximize collections.

R11.64 If an internal billing function within the City or the department is not feasible, the department should begin to hold the private collection agency responsible for their collection efforts. The department and the agency should agree upon the procedures to be used in the agency's collection process. The agency should then be required to submit monthly billing listings to the department which indicate collections for the month and the status of the outstanding billings including efforts made to collect. In addition, the agency should provide the department with an accounts receivable aging report which would aid the department in their identification of uncollectible charges.

Financial Implications: If the department assessed the appropriate charge to the lots they are currently maintaining, the annual billings should be approximately $210,00 ($150 for the 1,400 lots maintained). Assuming the collection agency can attain the prior collection rate of approximately 50 percent with additional monitoring by the department, annual revenue of $105,000 should be realized.

Land Bank Program

F11.103 The Land Re-utilization (land bank) Program, authorized under ORC § 5721 through 5723, was enacted by the City Council of Youngstown in 1994. The City implemented the land bank in cooperation with Mahoning County as a means of acquiring, managing and disposing of tax delinquent, non-productive and forfeited lands though the foreclosure process. The land bank allows the City to acquire delinquent and/or abandoned parcels for resale. The City of Youngstown has the authority to identify delinquent and abandoned parcels within the City limits and to begin foreclosure proceedings on the parcels. The foreclosure is performed by the county prosecutor's office and, once complete, the deed is transferred to the City.

The land bank program is ultimately intended to allow the City to reclaim abandoned properties for resale to developers or other interested parties. Successful land bank programs accrue parcels as they become available and actively re-market the land.

F11.104 Youngstown's Land Bank policy on the sale of parcels sets the sale price at $1 per 100 square feet if the parcel is zoned as residential and at market value of the land if the parcel is zoned for commercial use. Ordinance 96-72 states properties acquired through the land re-utilization program will be sold, "according to the terms of Chapter 5722 of the Ohio Revised Code, without competitive bidding, for not less than fair market value."

R11.65 The City should review the costs charged for properties to determine if, in the case of commercial properties, the cost is prohibitive to development. When reviewing the land bank sale policy, the City should investigate creative incentives, such as tax reductions on vacant abandoned residential properties, or other rewards to encourage private ownership. The City should also enlist the aid of a development consultant or an internal department, such as the city economic development department, to actively market vacant properties. Finally, the City should determine if it is possible to transfer large City block tracts to the parks department and allow the parks department to care for the land, return the property to a natural state, and operate the lot as an addition to the current park system.

F11.105 The current lank bank program is not operating as intended when the program was established. Instead of actively seeking to place vacant properties into the land bank, the City reacts only when a request from a prospective buyer is received. This can result in a

two year delay before the title of the property can be obtained by the lank bank. A delay of this length can discourage potential buyers from using the program.

There are numerous reasons why the land bank is not operating effectively, including the City's failure to assess the appropriate charges against the tax records and actively pursue foreclosure of delinquent properties. As noted previously in this section, the City is not assessing unpaid abatement and demolition charges against the property tax records. This practice prevents the properties from becoming delinquent on the property tax rolls. Furthermore, the Mahoning County Prosecutor's Office has indicated the City does not actively pursue foreclosure on delinquent properties and the properties are turned over to the State of Ohio. In the past, the City has requested property several months after being ceded to the state forcing the prosecutor's office to request a reversal of the cession. The county is required to exert extra effort to reclaim the property from the state and transfer ownership to the land bank, wasting time and effort.

F11.106 In the City of Cleveland, the foreclosure process is initiated by the treasurer of Cuyahoga County. The foreclosure process takes about one to one and a half years from start to finish because of the requirements surrounding the process. The City has developed a partnership with the county and worked hard to develop its land bank over the past six years. Cleveland has a sufficient number of parcels in the bank program to sell to interested parties in a much shorter time frame than the actual foreclosure process. The City only incurs the court costs and title cost of the parcels they acquire. After Cleveland has obtained a parcel for its land bank, it is able to turn a parcel over to a new owner in a shorter period of time because the foreclosure process has already commenced.

The process by which a parcel becomes part of the land bank in Cleveland is detailed below:

- the neighborhood development division receives a copy of parcels which have been foreclosed and will be up for auction prior to the sheriff's auction
- City files an affidavit for those properties the City wants to place in the land bank
- if the parcels do not receive bids, the City becomes the owner and is given the sheriff's deed to the property.

R11.66 The City needs to develop a pro active approach to vacant property management and resale through the land bank to reduce the number of vacant lots in the City. The current process used to obtain properties is cumbersome and does not help relieve the City of the expense of maintaining these properties. The City should actively work with the appropriate county offices to ensure all delinquent charges are assessed against the tax records of the appropriate properties. Once these properties reach foreclosure status, the City should immediately request foreclosure. The City should accept all foreclosed properties and add the parcels to the land bank. As the parcel selection in the land bank grows, the department should develop an action plan for aggregating, selling and transferring property ownership.

The City should contact the land bank program in the City of Cleveland to determine measures employed by Cleveland to attract developers to vacant lots. According to material provided by Cleveland, the land bank program enacted new procedures that helped developers better deal with the land acquisition process. Youngstown should investigate and, where possible, duplicate these procedures to encourage development and reduce the number of vacant lots under the City's care.

Financial Implications: The City incurs an estimate annual cost of $162,000 to care for the 1,100 vacant lots which are not assessed the appropriate charges. This amount is in addition to thousands of dollars in charges which were billed but have not been collected. The amount of cost savings the City would realize through an effectively managed land bank program can not be accurately estimated. However, turning vacant properties over to responsible owners would not only reduce operating costs, but also enable manpower to be reallocated to other needed functions.

Privatization Assessment

F11.107 The City has not performed a formal privatization study to assess the feasibility of outsourcing vacant lot mowing. As part of this study, an analysis of potential privatization opportunities in vacant lot management was performed on behalf of the department. The activities performed by the street department were evaluated with respect to a number of criteria important in considering privatization opportunities. The criteria used in assessing the privatization opportunities are listed in **Table 11-40.**

Table 11-40: Privatization Opportunities Assessment Criteria Mowing and Debris Removal

Assessment Criteria	Description / Key Issues
Sufficient volume?	Is the volume of work associated with function/activity sufficient to justify internal performance? Does the function/activity require a sufficient "critical mass" of resources to enable efficient operations?
Prohibitive control requirements?	Are the management, oversight and control requirements associated with external performance of the functions excessive? **S** Would management time requirements increase as a result of external performance of the function/activity? **S** Would standardization of work methods and service levels be difficult to achieve?
Complexity?	Is the function/activity too complex to be performed by external resources? 1) Are the technical skill requirements of the activity excessive? 2) Are the workload requirements associated with the function/activity difficult to predict? 3) Does performance of the function/activity involve complex coordination requirements among multiple city departments?
Influenced by regulatory/compliance environment?	Is the performance of the function/activity regulated? **S** Are regulatory issues complex? **S** Are noncompliance liabilities significant? **S** Are documentation and reporting requirements significant?
Significant capital investment?	Are significant capital investments required in association with the internal performance of the function/activity?
Procurable services?	Are high quality, external service providers available to perform the function/activity? **S** Do several alternative service providers exist? **S** Is the performance of the function/activity unique? **S** Are high quality resources available?
Significant operating costs?	Will the potential benefits of utilizing external resources likely offset/exceed the potential costs?
Quality?	Is there a high probability that external performance of the function/activity would reduce quality and service levels? **S** Would customer complaints likely increase? **S** Would responsiveness likely decline? **S** Would the quality of workmanship decrease?

F11.108 **Table 11-41** addresses how the maintenance of vacant lots within the City relates to the privatization criteria listed above. After applying the assessment criteria to the vacant lot program at Youngstown, it appears the City has a high potential for privatization.

Table 11-41: Initial Privatization Assessment

Assessment Criteria	Mowing/Debris Removal
Sufficient Volume	Yes
Prohibitive Control Requirements	No
Complexity	No
Regulatory Influence	No
Capital Investment	Yes
Procurable Services	Yes
Operating Costs	Yes
Quality	No
Potential Privatization Opportunity	**High**

F11.109 As indicated in **Table 11-41**, the opportunity for privatization exists. However, there are issues which should be given consideration prior to pursuing privatization. Those issues include:

- Improvements can likely be realized internally without outsourcing.
- Careful consideration must be given to subjective issues and opportunity costs associated with privatization. Issues such as the loss of control and lack of responsiveness, as well as recapitalization should privatization be unsuccessful, should not be ignored.

The City of Springfield contracts the maintenance function of vacant lot management, specifically mowing and debris removal, to outside contractors. As indicated in **F11.88**, Springfield has experienced an average of $54.84 per lot maintained as a result of their contract with the private vendor. As reported in **Table 11-38**, the department estimates it costs approximately $147.79 to maintain a vacant lot in Youngstown. Of the total cost, $97.18 are attributed to the actual manpower and equipment used to perform mowing functions. The remainder of the total costs are attributed to administrative functions of the program. Therefore, Youngstown is spending $42.34 more per lot than Springfield.

R11.67 The City of Youngstown should, after implementing recommendations to increase efficiency and effectiveness of the vacant lot program, conduct an assessment of the feasibility of privatizing or contracting out the mowing function. Private vendors have a financial incentive to achieve cost savings at a level somewhere below current operations, but not necessarily the lowest cost, most efficient operations. The implementation of privatization requires the City to carefully manage the contract(s) to ensure service delivery standards and other commitments are met. Contract management requires the City to incur expenses (personnel wages and benefits), in addition to the actual contract expense. To assure that service delivery goals are met, the City should be prepared to take the following steps:

- implementation of administrative procedures and processes to monitor and control vendors such as assigning specific staff to act as a liaison with the vendor; establishing time frames for delivery of service reviews; and defining service delivery goals, evaluation criteria and evaluation timing
- monitoring and evaluating vendor performance in areas such as response time, number of customer complaints, quality of work, standardization of materials and audits
- revising policies and procedures on an ongoing basis.

Finally, options beyond privatization of the mowing and debris removal function also exist. Adopt- a-Highway programs have proved highly successful across the nation and a similar program aimed at vacant lots may reduce the maintenance required of the department. The City of Youngstown, while considering privatization, should closely examine the vacant lot maintenance and management programs and other successful beautification programs of other urban cities and seek innovative means to reduce overall vacant parcel numbers and the cost of neglected parcel maintenance.

Financial Implications: If the vacant lot program, either through privatization or improving the current program, could attain the average maintenance cost per lot being realized by Springfield, the department could realize annual cost savings of approximately $106,000 related to the maintenance of the 2,500 vacant lots in the City.

Financial Implications Summary

The following table represents a summary of the annual revenue, annual savings, one-time costs, and annual costs for the recommendations in this section of the report. For the purpose of this table, only recommendations with quantifiable financial impacts are listed.

Table 4-43: Summary of Financial Implications for the Street Department

Recommendation	Annual Revenue	Annual Savings	One-Time Costs	Annual Costs
R11.5 Increase productivity by eliminating the current job bidding process and paid lunch benefit		$110,672		
R11.12 Reduce mechanic staffing by attaining peer productivity ratios		$106,000		
R11.15 Require ASE certification for mechanics			$180	
R11.16 Eliminate unnecessary garage positions		$71,500		
R11.20 Implement a computer management system			$5,390	
R11.28 Reduce overtime payments by increasing the number of personnel with CDLs		$67,500		$8,750
R11.30 Establish stipends for employees who become part of a substitute pool				$4,500
R11.31 Implement snow and ice routing software			$3,000	
R11.32 Increase vehicle maintenance efforts		$100,000 (cost avoidance)		
R11.35 Construct a salt storage dome		$14,566	$159,000	
R11.37 Purchase road salt prewetting system			$22,500	
R11.40 Utilize patch mobiles instead of the traditional manual method		$170,000		
R11.41 Purchase crack sealing machine			$17,000-23,000	
R11.45 Assess demolition permit fee	$5,600			
R11.46 Re-evaluate the demolition and grading crew responsibilities		$45,123		
R11.48 Assess actual cost of demolition to property for reimbursement	$110,400			
R11.52 Increase collection rate of demolition charges	$145,000-$244,000			

R11.59 Eliminate full-time benefit to seasonal employees		$60,750		
R11.60 Utilize seasonal workers for maintenance on vacant lots		$66,262		
R11.64 Increase abatement charges collection rate	$105,000			
R11.67 Reduce average cost per lot maintained to those attained by the peers		$106,000		
Totals	**$366,000-$465,000**	**$918,373** [1]	**$207,070-$213,070**	**$13,250**

[1] This total includes $100,000 annual cost avoidance associated with extending the useful life of trucks. In addition, additional annual savings could be realize by effectively operating the land bank program as noted in **R11.66**. However, the financial implication associated with that recommendation cannot currently be estimated.

Conclusion Statement

The City of Youngstown's street department operates inefficiently, due to an inadequate organizational structure, poor record keeping and inefficient resource allocation. As the department does not track or document labor and material resource use, measuring the actual efforts and completed projects is not possible. The department does not prepare an annual work plan nor does it prioritize the various functions under its sphere of responsibilities. In order to prepare an annual plan and account for expenditures to the council and community, the department should develop performance standards and, through an annual assessment of resource needs, determine the appropriations necessary to accomplish the department's goals. Though reduced man hours and low staffing levels were cited as causes for poor performance, certain issues regarding the supervision and management of existing employees were apparent throughout departmental operations. Only through accurate monitoring and straightforward accounting of employee activities to ensure maximum productivity can the department justify the need for additional staffing.

Non-productive time and patterns of sick leave abuse impact departmental operations and contribute to high accretion of overtime for most sections. Aspects of the job bid system, staffing schedules and crew composition used in certain functions further undermine the potential efficiency and cost effectiveness of the department. The streets department should evaluate several current employment practices as efforts to improve departmental efficiency.

Written policies are nonexistent for functions of the department. While some practices have evolved through the predominant functions of the department, most practices are outdated and have not been reassessed since implementation. Collective bargaining agreements appear to determine the majority of departmental practices. The department should develop written policies and procedures, as well as accompanying performance standards, to determine the method in which future operations will be performed. Ultimately, written policies and procedures and strong performance indicators will allow the department an avenue to express successes and areas of improvement to city council and the citizens of Youngstown.

Though the department staffs the snow and ice control function in a manner similar to the peer cities, Youngstown spends the second highest amount of overtime as a percentage of salaries in comparison to the peer cities in snow and ice removal. Poor staffing allocations and underutilization of vehicles contributes to the high costs of departmental operations. Also, inefficient routing, bare road policies, as well as current methods for salt and equipment storage, caused the department to generate higher operating costs than similar departments within the peer cities.

The street maintenance section, while accruing the lowest amount of overtime in the department, ignores several aspects of street maintenance that could prolong the life of the City's street infrastructure. Pothole filling constitutes the primary function of the section, but records of the total number of potholes in need of repair or the number of lane miles serviced are not retained. The

department does not use the pothole mixing machine owned by the department and instead opts for the traditional manual method of filling potholes which, in the long run, is not cost effective. Street sweeping should be greatly increased to a level comparable with the peer cities and crack sealing should be investigated as a means to maintain road surfaces and prevent pot holes.

Both the demolition and vacant property functions suffer from inefficient billing and collection strategies, requiring the City to cover the costs of demolitions and vacant lot maintenance. A review of charges indicated the department is undercharging the property owners for the services it provides. While the City charges all property owners for the demolition service, it does not charge all property owners for vacant lot maintenance. Both programs use the same private firm to perform billing and collections for the services but the success rate of collection is low. The City should consider performing billing and collection in house. The department should also annually review the amount of the charge to ensure full reimbursement for each program is attained. Finally, the department has not developed the land bank program which could, if properly managed, reduce the number of properties under its care.

Overall, the department must address serious issues of disorganization, inefficiency and redundancy. Through a restructuring of the department and the development of performance, efficiency and productivity measures, the street department could lower costs and improve services. Each section of the department, through an examination of current practices and procedures, coupled with an assessment of outsourcing potential, has the capacity to meet and exceed the efficiency levels of the peer cities while continuing to preserve the integrity of the City's infrastructure.

Police & Fire Department Benchmarking

Introduction

This section provides certain staffing and operational data, as well as certain operational ratios, for the police and fire departments at the City of Youngstown and the peer cities. This data is being provided at the request of the City of Youngstown. The data is based on interviews conducted with and information provided by the respective departments at the City of Youngstown and the peer cities. No conclusions or assessments are made on the data. Rather, it is being provided as management information to the City of Youngstown. Peer averages used throughout this section do not include the City of Youngstown. This section is divided into two subsections: (A) Police Department and (B) Fire Department.

A. Police Department

Background

In utilizing the information provided by the police departments at the respective cities, it must be noted that numerous organizational and operational issues vary from city to city. For example, Youngstown and Lorain both operate an emergency communication center (911) within the police department while Canton and Springfield do not. Lorain's police department is also responsible for maintaining a correctional facility unlike the other cities. Various positions at some cities are contracted out to private vendors or other governmental entities.

Table 12-1 presents the 1998 police department FTE staffing levels at the City of Youngstown and the peer cities.

Table 12-1: Police Department Staffing Levels

	Youngstown	Canton	Lorain	Springfield
Uniformed Personnel:				
Chief	1	1	1	1
Major	0	2	0	0
Captain	5	5	3	3
Lieutenant	9	18	6	6
Sergeant	36	27	12	16
Detective	5	0	0	0
Police Officer	146	151	89	101
Parking Control Aide	0	0	0	2
Total Uniformed Personnel	**202**	**204**	**111**	**129**
Non-Uniformed Personnel:				
Police/Record Clerk	16	10	0	13
Stenographer	0	0	0	5
Criminalist/Crime Lab	0	7	0	2
Clerical	2	2	4	2
Other	6	2	0	0
Total Non-Uniformed Personnel	**24**	**21**	**4**	**22**
Other Personnel:				
Emergency Dispatch	16	0	20	0
Corrections Officer	0	0	12	0
Total Other Personnel	**16**	**0**	**32**	**0**
TOTAL POLICE POSITIONS	**242**	**225**	**147**	**151**

Source: Police Departments

Table 12-2 presents a summary of the 1998 police department operational expenditures for the City of Youngstown and the peer cities.

Table 12-2: 1998 Police Department Operational Costs

	Youngstown	Canton	Lorain	Springfield
Salaries and Wages	8,318,685	7,988,608	5,139,720	6,110,584
Overtime	641,652	806,740	1,008,503	293,225
Fringe Benefits	4,245,711	3,624,276	1,644,979	2,129,892
Contractual Services	414,620	527,676	225,637	341,314
Materials and Supplies	317,532	60,465	431,761	237,420
Capital Outlay	25,934	4,534	616,577	68,646
Utilities	58,328	47,694	0	86,200
Miscellaneous	43,006	63,028	945,030	130,201
TOTAL OPERATIONAL COSTS	**$14,065,468**	**$13,123,021**	**$10,012,207**	**$9,397,482**

Source: Department Expenditure Reports

Table 12-3 presents the summary of the 1998 unified crime reports prepared by the police departments at the City of Youngstown and the peer cities. Crimes reported are the actual number of crimes reported and crimes cleared represent those crimes that were cleared through an arrest or exception.

Table 12-3: Summary of 1998 Crime Data

	Youngstown		Canton		Lorain		Springfield	
	Reported	Cleared	Reported	Cleared	Reported	Cleared [1]	Reported	Cleared
Murder/Manslaughter	49	10	12	12	4	2	2	2
Rape/Attempted Rape	49	3	102	14	35	16	52	26
Robbery	414	30	326	87	87	16	230	62
Aggravated Assault	634	156	836	351	178	N/A [2]	892	382
Simple Assault	2,230	627	1,371	476	1,009	63	2,294	961
Burglary	2,201	115	1,266	111	574	55	1,295	164
Thefts	2,725	127	3,392	442	1,505	49	3,668	492
Auto Theft	845	110	543	119	147	49	462	79
TOTAL CRIMES	**9,147**	**1,178**	**7,848**	**1,612**	**3,539**	**252**	**8,895**	**2,168**

Source: 1998 Unified Crime Reports

[1] Lorain only tracks cases cleared through the detective's bureau. Cases cleared through the patrol bureau are not recorded in these statistics.

[2] Lorain assault statistics were not available as separate categories, therefore, all assault cases cleared are aggregated under simple assault.

Table 12-4 presents key operational data gathered on the police department at the City of Youngstown and the peer cities for 1998 which were used to develop the operational ratios presented in **Table 12-5**. The data shows that Youngstown's police department responds to approximately 68 percent more calls than the average of the peer cities.

Table 12-4: Police Department Operational Data

	Youngstown	Canton	Lorain	Springfield
Police Stations Maintained	3	4	1	2
Number of Calls Responded to	103,886	74,843	44,780	65,027
Average Response Time (minutes):				
Dispatch to Arrival	3	N/A	N/A	3.2
Call to Arrival	4	N/A	N/A	4.2
Personnel by Function:				
Patrol	120	124	59	96
Investigation	32	38	17	25
Citizen's Complaints Received	123	81	43	42
Citizen's Complaints Cleared	123	81	43	42
Population	87,450	81,079	69,800	67,480

Sources: Police Departments
Notes: N/A - City could not provide data

Table 12-5 presents certain operational ratios for the police department at the City of Youngstown and the peer cities. As noted in the table, Youngstown has the second lowest ratio of uniformed personnel on patrol, the second highest ratio for total police positions per 10,000 residents and the second highest reported crime ratio as compared to the peer cities. Youngstown also had the second highest ratio for police department expenditures, while overtime expenditures per employee was the second lowest among the peers.

Table 12-5: Police Department Operational Ratios

	Youngstown	Canton	Lorain	Springfield	Peer Average
Patrol and Investigation Positions per 10,000 residents:					
Patrol	13.7	15.3	8.5	14.2	12.7
Investigation	3.7	4.7	2.4	3.7	3.6
Staffing Levels per 10,000 residences					
Uniformed	23.10	25.16	15.90	19.12	20.06
Non-uniformed	2.74	2.59	0.57	3.26	2.14
Other Positions	1.83	0.00	4.58	0.00	1.53
Total Police Positions	27.67	27.75	21.06	22.38	23.73
Police Department Expenditure per 100 Residents	$16,075	$16,181	$14,344	$13,922	$14,816
Overtime per Employee	$2,651	$3,586	$6,861	$1,942	$4,130
Total Reported Crime per 1,000 Residents	104.5	96.8	50.7	131.8	93.1
Percentage of Reported Crime Cleared:					
Murder/Manslaughter	20.4%	100.0%	N/A	100.0%	100.0%
Rape/Attempted Rape	6.1%	13.7%		50.0%	31.9%
Robbery	7.3%	26.7%		27.0%	26.8%
Aggravated Assault	24.6%	42.0%		42.8%	42.4%
Simple Assault	28.1%	34.7%		41.9%	38.3%
Burglary	5.2%	0.9%		12.7%	6.8%
Thefts	4.7%	13.0%		13.4%	13.2%
Auto Thefts	13.0%	21.9%		17.1%	19.5%
Total Reported Crime	12.9%	19.3%		24.4%	21.8%

Notes:
N/A - Lorain does not track total cases cleared, only those cleared through the detective's bureau.

B. Fire Department

Background

In utilizing the information provided by the fire departments at the respective cities, it must be noted that numerous organizational and operational issues vary from city to city. Canton and Springfield perform emergency medical services (EMS) through their fire departments. This requires additional staffing (paramedics) and equipment. EMS in Youngstown and Lorain are provided to the community through private vendors. Also, various other positions at some cities are contracted out to private vendors or other governmental entities.

Table 12-6 presents the 1998 fire department FTE staffing levels at the City of Youngstown and the peer cities.

Table 12-6: Fire Department Staffing Levels by Function

	Youngstown	Canton	Lorain	Springfield
Administration:				
Chief	1	1	1	1
Clerical	2	2	1	3
Training Officer	1	2	1	1
Other	0	0	1	0
Fire Suppression Division:				
Assistant/Battalion Fire Chief	3	4	3	4
Captain	30	27	3	9
Lieutenant	30	0	12	18
Firefighter	64	57	63	0
Firefighter/Paramedic	0	81	0	87
Fire Prevention and Inspection/ Arson Investigation	7	7	3	3
EMS Administration	0	2	0	2
Other	5	5	3	1
TOTAL FIRE DEPARTMENT POSITIONS	**143**	**188**	**91**	**129**

Source: Fire Departments

Table 12-7 presents a summary of the 1998 fire department operational expenditures for the City of Youngstown and the peer cities.

Table 12-7: 1998 Fire Department Operational Costs

	Youngstown	Canton	Lorain	Springfield
Salaries and Wages	5,987,082	7,791,270	3,805,511	5,801,580
Overtime	51,246	271,332	273,384	268,807
Fringe Benefits	2,872,043	3,016,209	1,352,322	2,173,068
Contractual Services	437,597	81,351	10,491	121,093
Materials and Supplies	212,197	60,956	124,855	193,956
Capital Outlay	111,065	1,406	238,362	0
Utilities	98,380	89,255	45,106	93,741
Education	18,002	0	23,737	61,259
Miscellaneous	45,052	257,625	0	0
TOTAL OPERATIONAL COSTS	**$9,832,664**	**$11,569,404**	**$5,873,769**	**$8,713,504**

Source: 1998 Departmental Expenditure Reports

Table 12-8 presents key operational data gathered on the fire department at the City of Youngstown and the peer cities for 1998 which were used to develop the operational ratios presented in **Table 12-9**. The data shows that Youngstown's fire department responded to the second highest number of fire calls and had the second best response time. In addition, estimates provided by the fire department indicate that it spends significantly more hours on fire prevention programs and fire code inspections than the peers. However, Youngstown experienced the highest number of fires, as well as fire related deaths and injuries among the peer cities.

Table 12-8: Summary of Fire Department Operational Data

	Youngstown	Canton	Lorain	Springfield
Number of Fire Stations	8	9	4	7
Minimum Staff Levels - Fire Suppression	32	39	21	28
Firefighting Equipment (excluding medic units)	12	13	13	10
Number of Fire Emergency Calls - 1998	2,554	3,732	2,052	1,877
Average Response Time to Fire Emergency Calls (minutes)	3	less than 5 [1]	2.43	5.73
Number of Fires	1,048	400	N/A	466
Hours Spent on Fire Prevention Programs	800 [1]	478	N/A	500 [1]
Hours Spent on Fire Code Inspection	9,000 [1]	900	N/A	634
Number of Fires Investigated	336	154	45	108
Fire Related Deaths	5	0	1	2
Fire Related Injuries	50	25	43	22
Square Milage of City	35	19.5	23.8	23.4
Population	87,450	81,079	69,800	67,480

Source: Fire Departments

Notes:

N/A - City could not provide data

[1] Data was estimated by the City

The operational ratios in **Table 12-9** indicate that Youngstown had the highest cost per fire in 1998. In addition, although staffing level per 10,000 residences is the second lowest, the two cities with higher staffing levels provide emergency medical services. This service is provided by private contractors within the City of Youngstown. **Table 12-9** also shows that Youngstown has a significantly higher percentage of its workforce in the captain and lieutenant ranks as compared with the peer cities.

Table 12-9: Fire Department Operational Ratios

	Youngstown	Canton	Lorain	Springfield	Peer Average
Staffing Levels per 10,000 Residents					
Administration	0.46	0.62	0.57	0.74	0.64
Fire Suppression	14.51	20.84	11.60	17.48	16.64
Fire Prevention and Inspection/Arson	0.80	0.86	0.43	0.44	0.58
Other	0.06	0.86	0.43	0.44	0.58
Total	16.35	23.19	13.04	19.12	18.45
Fire Suppression: Percentage of Employees by Rank					
Assistant/Battalion Fire Chief	2.4%	2.4%	3.7%	3.2%	3.1
Captain	23.6%	16.0%	3.7%	7.6%	9.1
Lieutenant	23.6%	0.0%	14.8%	15.3%	10.0
Firefighter	50.4%	33.7%	77.7%	0.0%	37.1
Firefighter/Paramedic	0.0%	47.9%	0.0%	73.7%	40.5
Fire Department Expenditures per 100 Residents	$11,244	$14,281	$8,415	$12,484	$11,727
Overtime per Employee	$358	$1,443	$2,159	$2,084	$1,895
Number of Square Miles per Fire Station	4.38	2.17	5.95	3.34	3.82
Pieces of Firefighting Equipment per 1,000 Residents	0.14	0.16	0.19	0.15	0.17
Fire Department Cost per Fire	$9,382	$28,924	N/A	$18,699	$15,874

Notes:
N/A - City could not provide data needed for calculation