MIAMI VALLEY RISK MANAGEMENT ASSOCIATION MONTGOMERY COUNTY, OHIO

SUPPLEMENTAL REPORT

FOR THE YEAR ENDED DECEMBER 31, 2016



Board of Trustees Miami Valley Risk Management Association 4625 Presidential Way Kettering, Ohio 45429

We have reviewed the *Independent Auditor's Report* of the Miami Valley Risk Management Association, Montgomery County, prepared by Julian & Grube, Inc., for the audit period January 1, 2016 through December 31, 2016. Based upon this review, we have accepted these reports in lieu of the audit required by Section 117.11, Revised Code. The Auditor of State did not audit the accompanying financial statements and, accordingly, we are unable to express, and do not express an opinion on them.

Our review was made in reference to the applicable sections of legislative criteria, as reflected by the Ohio Constitution, and the Revised Code, policies, procedures and guidelines of the Auditor of State, regulations and grant requirements. The Miami Valley Risk Management Association is responsible for compliance with these laws and regulations.

Dave Yost Auditor of State

July 12, 2017



MIAMI VALLEY RISK MANAGEMENT ASSOCIATION MONTGOMERY COUNTY, OHIO

TABLE OF CONTENTS

	<u>PAGES</u>
Independent Auditor's Report on Internal Control Over Financial	
Reporting and on Compliance and Other Matters	
Required by Government Auditing Standards	1 - 2





Julian & Grube, Inc.

Serving Ohio Local Governments

333 County Line Rd. West, Westerville, OH 43082 Phone: 614.846.1899 Fax: 614.846.2799

Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Required by Government Auditing Standards

Miami Valley Risk Management Association Montgomery County 4625 Presidential Way Kettering, Ohio 45429

To the Board of Trustees:

We have audited, in accordance with auditing standards generally accepted in the United States and the Comptroller General of the United States' *Government Auditing Standards*, the financial statements of the Miami Valley Risk Management Association, Montgomery County, Ohio, as of and for the year ended December 31, 2016, and the related notes to the financial statements, which collectively comprise the Miami Valley Risk Management Association's basic financial statements and have issued our report thereon dated June 8, 2017.

Internal Control Over Financial Reporting

As part of our financial statement audit, we considered the Miami Valley Risk Management Association's internal control over financial reporting (internal control) to determine the audit procedures appropriate in the circumstances to the extent necessary to support our opinion on the financial statements, but not to the extent necessary to opine on the effectiveness of the Miami Valley Risk Management Association's internal control. Accordingly, we have not opined on it.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, when performing their assigned functions, to prevent, or detect and timely correct misstatements. A *material weakness* is a deficiency, or combination of internal control deficiencies resulting in a reasonable possibility that internal control will not prevent or detect and timely correct a material misstatement of the Miami Valley Risk Management Association's financial statements. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all internal control deficiencies that might be material weaknesses or significant deficiencies. Given these limitations, we did not identify any deficiencies in internal control that we consider material weaknesses. However, unidentified material weaknesses may exist.

Board of Trustees Miami Valley Risk Management Association

Julian & Sube the

Compliance and Other Matters

As part of reasonably assuring whether the Miami Valley Risk Management Association's financial statements are free of material misstatement, we tested its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could directly and materially affect the determination of financial statement amounts. However, opining on compliance with those provisions was not an objective of our audit and accordingly, we do not express an opinion. The results of our tests disclosed no instances of noncompliance or other matters we must report under *Government Auditing Standards*.

Purpose of this Report

This report only describes the scope of our internal control and compliance testing and our testing results, and does not opine on the effectiveness of the Miami Valley Risk Management Association's internal control or on compliance. This report is an integral part of an audit performed under *Government Auditing Standards* in considering the Miami Valley Risk Management Association's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Julian & Grube, Inc.

June 8, 2017

MVRMA

Miami Valley Risk Management Association

COMPREHENSIVE ANNUAL FINANCIAL REPORT

YEAR ENDED DECEMBER 31, 2016

Serving the Cities of Southwest Ohio since 1988

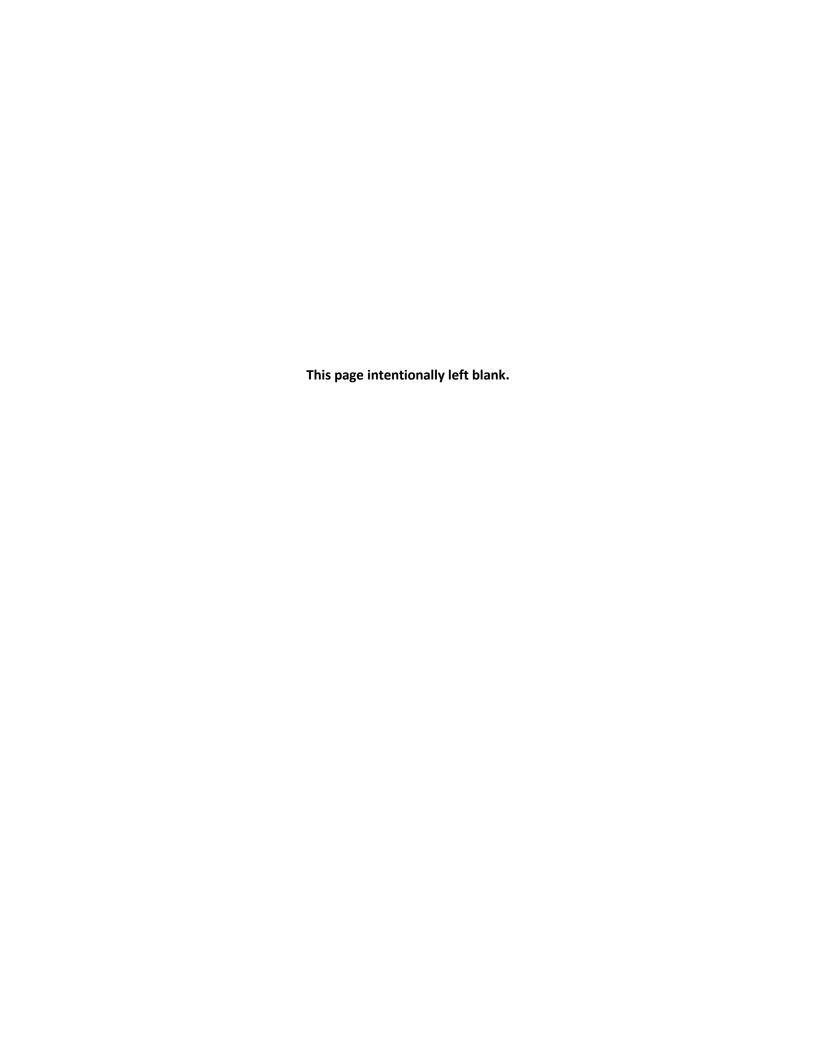


TABLE OF CONTENTS

INTRODUCTORY SECTION

Letter of Transmittal	i - v
Members of the MVRMA Board of Trustees	vi
Officers of the MVRMA Board of Trustees	vii
MVRMA Organization Chart	viii
Certificate of Achievement for Excellence in Financial Reporting	ix
FINANCIAL SECTION	
Independent Auditors' Report	1-2
Management's Discussion and Analysis	3-9
AUDITED BASIC FINANCIAL STATEMENTS	
Statement of Net Position.	10
Statement of Revenues, Expense & Changes in Net Position	11
Statement of Cash Flows	12 - 13
Notes to the Basic Financial Statements	14 - 31
REQUIRED SUPPLEMENTARY INFORMATION	
Comparative Schedule of Claim Development, Earned Assessments & Unallocated Expenses Reconciliation of Claims Liabilities by Type of Contract	33
(12/31/16)	34
Schedule of Proportionate Share of Net Pension Liability	35
Schedule of Contributions to Ohio Public Employee Retirement System last Ten Years Notes to the Required Supplementary Information	36 37

ACTUARIAL SECTION

	Report of Independent Actuaries	38 - 40
	Purpose and Scope	42- 43
	Distribution and Use Background	44 45 - 47
	Findings	48
	Analysis	49 - 50
	Reliance and Limitations	51 - 52
	Description of Projection Methods	53 - 54
ACT	TUARIAL SUMMARIES AND EXHIBITS	
	SUMMARY EXHIBIT 1: Indicated Reserves	56
	SUMMARY EXHIBIT 2: Summary of Estimated Ultimate Retained Losses	57
	SUMMARY EXHIBIT 3: Summary of Estimated Member Deductible Ultimate Loss	58
	Adjustment Expense Reserves	59
Auto	o Liability	
	Summary of All Retention Levels Loss & ALAE Reserve Analysis (Automobile Liability)	60 - 76 77- 84
	Reported and Closed Claim Count Analysis (Automobile Liability)	85 - 91
Gen	eral Liability	
	Summary of All Retention Levels Loss & ALAE Reserve Analysis (General Liability)	92 - 108
		109 - 116
Danam	Reported and Closed Claim Count Analysis (General Liability)	117 - 123
Prop	perty and Auto Physical Damage	
	Summary of All Retention Levels Loss & ALAE Reserve Analysis (Property)	124 - 133 134 - 143
	Reported and Closed Claim Count Analysis (Property)	144 - 148

STATISTICAL SECTION

Statistical Section Table of Contents.	149
Schedule 1 – Net Position by Component.	150
Schedule 2 – Changes in Net Position.	151
Schedule 3 – Loss Development Report – Comparison of Dollar Losses and Claims Counts by Loss Year	152 153
Schedule 5 – Demographic Statistics.	154 - 157
Schedule 6 – Pool Contribution Factors.	158
Schedule 7 – Risk Exposure Worksheet (Summary)	159
Risk Exposure Worksheets (By City)	
Schedule 8 – City of Beavercreek.	160
Schedule 9 – City of Bellbrook.	161
Schedule 10 – City of Blue Ash	162
Schedule 11 – City of Centerville.	163
Schedule 12 – City of Englewood.	164
Schedule 13 – City of the Village of Indian Hill.	165
Schedule 14 – City of Kettering.	166
Schedule 15 – City of Madeira.	167
Schedule 16 – City of Mason.	168
Schedule 17 – City of Miamisburg	169
Schedule 18 – City of Montgomery.	170
Schedule 19 – City of Piqua.	171
Schedule 20 – City of Sidney	172
Schedule 21 – City of Springdale.	173
Schedule 22 – City of Tipp City	174
Schedule 23 – City of Troy.	175
Schedule 24 – City of Vandalia.	176
Schedule 25 – City of West Carrollton.	177
Schedule 26 – City of Wilmington	178

Schedule 27 – City of Wyoming.	179
Schedule 28 – Operating Information by Component	180

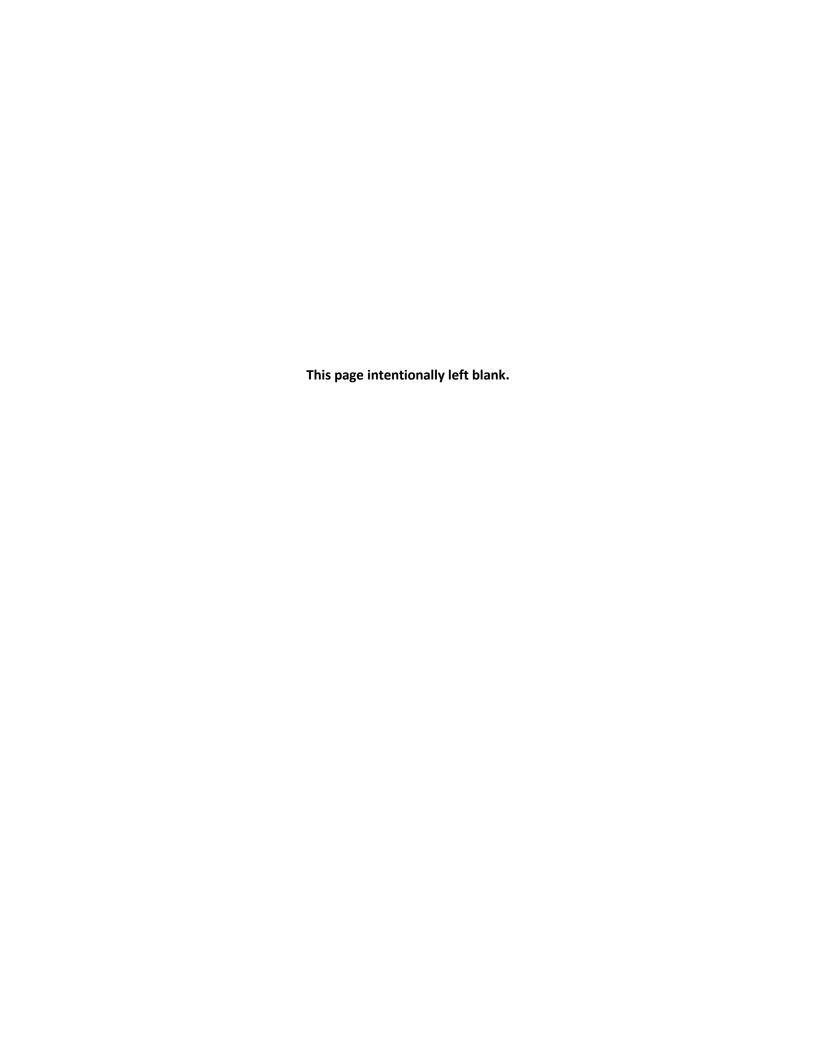
COMPREHENSIVE ANNUAL FINANCIAL REPORT

Year Ended December 31, 2016

Published June 8, 2017

Prepared by:

Thomas L. Judy, Executive Director





June 8, 2017 President John Green & the Board of Trustees Miami Valley Risk Management Association

Re: MVRMA CAFR for the Period Ended December 31, 2016

Dear MVRMA President and Members of the MVRMA Board of Trustees:

The Comprehensive Annual Financial Report of the Miami Valley Risk Management Association (MVRMA) for the year ended December 31, 2016 is hereby submitted for your review.

The purpose of this report is to provide complete and reliable information as a basis for making management decisions, as a means for determining compliance with legal requirements, as a means for determining funding adequacy including funding for losses and loss adjustment expense reserves and as a means for demonstrating responsible stewardship over the assets contributed by MVRMA's member cities.

MVRMA staff prepared all statements, schedules and other presentations in this report except the actuarial report included in the Required Supplemental Information (RSI) section. Management assumes full responsibility for the completeness and reliability of the information contained in this report, based upon a comprehensive framework of internal control that it has established for this purpose. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements.

Julian & Grube, Inc., Certified Public Accountants, have issued an unmodified ("clean") opinion on MVRMA's financial statements for the year ended December 31, 2016. The independent auditors' report is included in the front of the Financial Section, which immediately follows the Introductory Section of this report.

4625 Presidential Way • Kettering, Ohio 45429 (937) 438-8878 • Fax (937) 438-8330 <u>www.mvrma.com</u> Management's Discussion and Analysis (MD&A) immediately follows the independent auditors' report and provides a narrative introduction, overview and analysis of the basic financial statements. The MD&A complements this letter of transmittal and should be read in conjunction with it.

Following the Financial Section are the Actuarial and Statistical sections. The Actuarial Section includes the independent actuary's opinion on the unpaid loss and loss adjustment expense reserves, including incurred but not reported (IBNR) claims and related exhibits. The Statistical Section includes financial trends information, revenue capacity information, demographic and economic information and operating information for the last ten years.

Profile of the Reporting Entity

MVRMA is a consortium of municipalities located in southwest Ohio which formed an Association under Section 2744.081 of the Ohio Revised Code (ORC) to act collectively in addressing its members' risk management and risk financing needs. It was incorporated on December 1, 1988, with six (6) charter members: the City of Beavercreek, City of Kettering, City of Miamisburg, City of Vandalia, City of West Carrollton and City of Wilmington. As of December 31, 2016, MVRMA had twenty (20) members, with the City of Troy joining in 1989, City of Montgomery joining in 1990, City of Springdale joining in 1991, City of Blue Ash and City of Wyoming joining in 1992, City of the Village of Indian Hill and City of Sidney joining in 1993, City of Madeira joining in 1994, City of Tipp City joining in 1996, City of Mason joining in 1997, City of Piqua joining in 2002 and the City of Englewood, City of Bellbrook and City of Centerville joining in 2004. The Association provides a combination of self-insurance, excess insurance and reinsurance for its members' property/casualty exposures; administers a claims/litigation management program; provides extensive safety/loss control consulting and training; and acts as a clearing house for risk-related information and financial reporting services for its members.

MVRMA management, under the direction of the Board of Trustees' Finance Committee, annually prepares a budget to provide for operating expenses and loss funding for the upcoming year. Funds available for the payment of claims are segregated by loss year, and claims are paid from the funds collected for the corresponding year of occurrence. Each year's loss funding contribution is determined by an actuarial study conducted by an independent actuary. Should any year's operating expenses or losses exceed that particular year's contributions, the Board of Trustees may transfer funds from the Association's Shock Loss Fund or call for supplementary payments from members, including withdrawn or expelled members, for the years of their membership.

Economic Condition and Outlook

MVRMA is only indirectly affected by the state of the local economy; however, the Association's members are more directly impacted. Members are situated along or near the "I-75 Corridor" in the southwest quadrant of the state of Ohio and are within, or influenced by, the economies in the Cincinnati and Dayton regions. This region has a first-class transit infrastructure providing access to major markets from the Midwest to the east coast. Trucks have access to not only I-75, but also I-70, I-71 and I-675. Two major airports, Cincinnati/Northern Kentucky International Airport and Dayton International Airport, can provide transport by air to 55% of the country's population in only 90 minutes. Additionally, this

region is served by the CSX rail line which has access to all major cities and ports in the Midwest and along the east coast. Cargo shipping is also possible along the Ohio River, which borders the state to the south. Port Cincinnati sees 11.7 million tons of general and bulk cargo pass through annually.

Dayton Area

The overall economic outlook for the Dayton region is generally positive according to the Dayton Area Chamber of Commerce's Research Advisory Council (RAC). The Committee's 2016 Dayton Region Economic Outlook included the following:

- The housing and construction industries continue to see growth with continued progress at Austin Landing, Cornerstone, and The Mall at Fairfield Commons.
- The region has had challenges regarding a labor shortage. While there are plenty of job openings, companies are struggling to find skilled and qualified workers to meet that demand, especially in manufacturing.
- The Downtown Dayton landscape is being revitalized with the new Riverscape River Run, the new campus at the Dayton Metro Library as well as upgrades to several educational institutions.

The unemployment rate for the Dayton MSA was 4.2% for 2016, down from 4.5% in 2015.

Cincinnati Area

Cincinnati's economic indicators continue to move in a positive direction according to the Market at a Glance prepared by PD&R/Economic & Market Analysis Division.

- Nonfarm payrolls in the Cincinnati MSA increased by 1.9% to 1.09 million jobs during the third quarter of 2016. Gains were led by leisure and hospitality and the wholesale and retail trade sectors.
- New home sales in the Cincinnati MSA increased 2%, to 2,825 during the 12 months ending November 2016 compared with a year earlier, and the average new home sale price increased nearly 1%, to \$283,300.
- Single family home construction, as measured by the number of building permits issued, totaled 3,925 during 2016, or 13 percent more than were permitted a year earlier.

Unemployment in the area was 3.8% in 2016, down from 4.3% in 2015.

Insurance/Reinsurance Market Outlook

MVRMA's is impacted by the insurance and reinsurance markets due to the Association's purchase of excess insurance and reinsurance. The commercial insurance market is generally very healthy as natural disaster losses continue to be below the average for the past ten years. Policyholder surplus is at a record high (\$688.3B), and the P&C 'Combined Ratio' is currently 99.5%. Weather extremes, and a continued decrease in investment earnings, are areas of concern for the industry, but overall, the outlook is favorable for the commercial insurance market. Looking ahead, expectations are that rates will remain essentially flat for non-catastrophic exposed risks. Some lines of coverage will see modest decreases, while others such

as law enforcement liability, flood, auto liability and employment practices liability may see price increases.

Long-term Financial Planning

Having found what it considers a successful formula for long-term financial planning, MVRMA continues to expand on previously developed programs while being mindful of any new opportunities:

- MVRMA's Shock Loss Fund, which was established as an internal funding mechanism to replace costly stop loss insurance, has surpassed its moving target of being equivalent to the current year's annual loss funding amount. The loss funding amount contributed in 2016 was \$2,575,000 while the Shock Loss Fund balance as of 12/31/16 was \$3,205,354. A recent actuarial study indicated this balance is sufficient at a confidence level in excess of 99% to satisfy the pool's claims liabilities under any feasible scenario.
- By participating in the insurance captive Government Entities Mutual (GEM), MVRMA has been able to further distance itself from the commercial market. GEM provides reinsurance for liability claims in excess of the pool's \$500,000 self-insured retention. GEM's limit of coverage was \$4.5 million in 2016.
- MVRMA modified its investment policy and approach in 2013 to increase its allocation in high-grade corporate bonds and to increase the duration of the portfolio to better match the Association's liabilities. This approach has created greater investment yield with minimal additional risk exposure. MVRMA continued to contract with SJS Investment Consulting, Inc. for investment advisory services in 2016. The investment portfolios continue to outperform established benchmarks.
- Pursuant to its policy of returning unused loss funds to its members when a loss year is closed. No loss years were closed in 2016. In 2015, MVRMA made refunds of \$2,284,192 to its members from the closure of Loss Year 21 (2009) and Loss Year 22 (2010). In April of 2016 an additional refund of \$64,170 was made for Loss Year 22. MVRMA has refunded over \$15 million to its members since the Association's formation in 1988.

Relevant Financial Policies

The Amended Agreement and Bylaws of MVRMA establish the basic fiscal requirements of the Association including: requiring Board approval of the preliminary budget by September 30 each year and the final budget by December 31; identifying the underwriting information used to establish each member's pool contribution factor; defining when supplementary payments shall be required and when and how surplus funds may be distributed to the membership.

MVRMA adopted its Cash and Investment Policy in 1991 to indicate a conscious, formal effort to develop, implement and monitor the investment of all MVRMA funds. It was last amended in March 2017 and is reviewed annually.

Major MVRMA Initiatives During 2016

Among the Association's achievements during the fiscal period ending December 31, 2016 were the following:

- About 809 participants attended 27 MVRMA sponsored training courses throughout the year.
- MVRMA increased its liability limits in 2016 from \$10 million to \$12 million per occurrence. This action further protects its members from catastrophic liability claims. Due to favorable insurance market conditions, the 20% increase in limits was accomplished with a 6% premium reduction.

Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to MVRMA for its comprehensive annual financial report for the fiscal year ended December 31, 2015. This was the 23rd consecutive year MVRMA has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our comprehensive annual financial report for the year ended December 31, 2016 continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

Acknowledgements

Management would like to express appreciation to the Board of Trustees for their dedication to excellence in financial reporting, the principles of risk management, loss control and public entity pooling.

Respectfully submitted,

Thomas L. Judy, CPA Executive Director

MIAMI VALLEY RISK MANAGEMENT ASSOCIATION MEMBERS OF THE BOARD OF TRUSTEES As of December 31, 2016

Member City	<u>Trustee</u>	<u>Alternate</u>
Beavercreek	Bill Kucera	Jill Bissinger
Bellbrook	Mark Schlagheck	Don Buczek
Blue Ash	Sherry Poppe	Amy Moore
Centerville	Jonathan Hudson	Gregory Horn
Englewood	Eric A. Smith	Janine Cooper
Indian Hill	Dina Minneci	Scott Gully
Kettering	Nancy Gregory	Estelle Gibson
Madeira	Thomas Moeller	
Mason	Jennifer Heft	Mary Mueller
Miamisburg	Keith D. Johnson	Emily Christian
Montgomery	John Crowell	Katie Smiddy
Piqua	Stacy Wall	Cynthia Holtzapple
Sidney	Ginger Adams	Mark Cundiff
Springdale	Amanda Zimmerlin	Derrick Parham
Tipp City	John Green	Timothy Eggleston
Troy	Patrick Titterington	Sue Knight
Vandalia	Julie Trick	Bridgette Leiter
West Carrollton	Thomas Reilly	Teresa Brooks
Wilmington	Virginia Shoemaker	Marian Miller
Wyoming	Lynn Tetley	Jeremiah Caudill

MIAMI VALLEY RISK MANAGEMENT ASSOCIATION OFFICERS OF THE BOARD OF TRUSTEES As of December 31, 2016

Board Office	Office Holder	Member City
President	John Green	Tipp City
Vice-President	Dina Minneci	Village of Indian Hill
Treasurer	Janine Cooper	Englewood
Secretary	Julie Trick	Vandalia

MIAMI VALLEY RISK MANAGEMENT ASSOCIATION **ORGANIZATIONAL CHART**

BOARD OF TRUSTEES
One Trustee Per City

AND COMPENSATION RISK MANAGEMENT PERSONNEL STANDING COMMITTEES **EXECUTIVE DIRECTOR** NOMINATING/AWARDS RECORDS COMMISSION **MEMBERSHIP SERVICES** AND MARKETING FINANCE/AUDIT PAYROLL/FINANCIAL SERVICES **LITIGATION SERVICES AUDITING SERVICES EXECUTIVE DIRECTOR BOARD OFFICERS** LOSS CONTROL SERVICES **ACTUARIAL SERVICES CLAIMS SERVICES** CORPORATE COUNSEL

		2016 MEMBER CITIES		
EAVERCREEK	ENGLEWOOD	MASON	SIDNEY	VANDALIA
BELLBROOK	INDIAN HILL	MIAMISBURG	SPRINGDALE	WEST CARROLTON
LUE ASH	KETTERING	MONTGOMERY	TIPP CITY	WILMINGTON
ENTERVILLE	MADERIA	PIQUA	TROY	WYOMING

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Miami Valley Risk Management Association, Ohio

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

December 31, 2015

Executive Director/CEO





Julian & Grube, Inc.

Serving Ohio Local Governments

333 County Line Rd. West, Westerville, OH 43082 Phone: 614.846.1899 Fax: 614.846.2799

Independent Auditor's Report

Miami Valley Risk Management Association Montgomery County 4625 Presidential Way Kettering, Ohio 45429

To the Board of Trustees:

Report on the Financial Statements

We have audited the accompanying financial statements of Miami Valley Risk Management Association (MVRMA), Montgomery County, Ohio, as of and for the year ended December 31, 2016, and the related notes to the financial statements, which collectively comprise the MVRMA's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for preparing and fairly presenting these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes designing, implementing, and maintaining internal control relevant to preparing and fairly presenting financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to opine on these financial statements based on our audit. We audited in accordance with auditing standards generally accepted in the United States of America and the financial audit standards in the Comptroller General of the United States' *Government Auditing Standards*. Those standards require us to plan and perform the audit to reasonably assure the financial statements are free from material misstatement.

An audit requires obtaining evidence about financial statement amounts and disclosures. The procedures selected depend on our judgment, including assessing the risks of material financial statement misstatement, whether due to fraud or error. In assessing those risks, we consider internal control relevant to the MVRMA's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not to the extent needed to opine on the effectiveness of the MVRMA's internal control. Accordingly, we express no opinion. An audit also includes evaluating the appropriateness of management's accounting policies and the reasonableness of their significant accounting estimates, as well as our evaluation of the overall financial statement presentation.

We believe the audit evidence we obtained is sufficient and appropriate to support our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of MVRMA, Montgomery County, Ohio, as of December 31, 2016, and the respective changes in financial position and, its cash flows for the year then ended in accordance with the accounting principles generally accepted in the United States of America.

Independent Auditor's Report Miami Valley Risk Management Association

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require this presentation to include *Management's discussion and analysis*, claims information, and schedules of net pension liability/net pension asset and pension contributions, listed in the table of contents, to supplement the basic financial statements. Although this information is not part of the basic financial statements, the Governmental Accounting Standards Board considers it essential for placing the basic financial statements in an appropriate operational, economic, or historical context. We applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, consisting of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, to the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not opine or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to opine or provide any other assurance.

Other Information

Our audit was conducted to opine on the MVRMA's basic financial statements taken as a whole.

The introductory section, the actuary report section and the statistical section information present additional analysis and are not a required part of the basic financial statements.

We did not subject the introductory section, the actuary report section, and the statistical section information to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion or any other assurance on them.

Other Reporting Required by Government Auditing Standards

Julian & Sube, the

In accordance with *Government Auditing Standards*, we have also issued our report dated June 8, 2017, on our consideration of the MVRMA's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters. That report describes the scope of our internal control testing over financial reporting and compliance, and the results of that testing, and does not opine on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the MVRMA's internal control over financial reporting and compliance.

Julian & Grube, Inc. June 8, 2017

Management's Discussion And Analysis For The Year Ended December 31, 2016

The management of the Miami Valley Risk Management Association (MVRMA or Association) provides the following introduction, overview and analysis of MVRMA's financial statements for the year ended December 31, 2016. This discussion and analysis is designed to assist the reader in focusing on significant financial issues and activities and to identify any significant changes in financial position. We encourage the reader to consider the information presented here in conjunction with the basic financial statements taken as a whole.

MVRMA is a consortium of municipalities located in southwest Ohio, which formed an Association under Section 2744.081 of the Ohio Revised Code (ORC) to act collectively in addressing its members' risk management and risk financing needs. It became operational in December 1988 with six charter members and now has twenty members.

Basic Financial Statements and Presentation

The financial statements presented by the Association are the Statement of Net Position, Statement of Revenues, Expenses, and Changes in Net Position and the Statement of Cash Flows. As required by Governmental Accounting Standards Board Statement Number 10, the Association is accounted for as one enterprise fund.

In 2015, the Association adopted GASB Statement 68, "Accounting and Financial Reporting for Pensions—an Amendment of GASB Statement 27," which significantly revises accounting for pension costs and liabilities. For reasons discussed below, many end users of this financial statement will gain a clearer understanding of the Association's actual financial condition by adding deferred inflows related to pension and the net pension liability to the reported net position and subtracting deferred outflows related to pension.

Governmental Accounting Standards Board standards are national and apply to all government financial reports prepared in accordance with generally accepted accounting principles. When accounting for pension costs, GASB 27 focused on a funding approach. This approach limited pension costs to contributions annually required by law, which may or may not be sufficient to fully fund each plan's *net pension liability*. GASB 68 takes an earnings approach to pension accounting; however, the nature of Ohio's statewide pension systems and state law governing those systems requires additional explanation in order to properly understand the information presented in these statements.

Under the new standards required by GASB 68, the net pension liability equals the Association's proportionate share of the plan's collective:

- 1. Present value of estimated future pension benefits attributable to active and inactive employees' past service
- 2 Minus plan assets available to pay these benefits

GASB notes that pension obligations, whether funded or unfunded, are part of the "employment exchange" – that is, the employee is trading his or her labor in exchange for wages, benefits, and the promise of a future pension. GASB noted that the unfunded portion of this pension promise is a present obligation of the government, part of a bargained-for benefit to the employee, and should accordingly be reported by the government as a liability since they received the benefit of the

Management's Discussion And Analysis For The Year Ended December 31, 2016

exchange. However, the Association is not responsible for certain key factors affecting the balance of this liability. In Ohio, the employee shares the obligation of funding pension benefits with the employer. Both employer and employee contribution rates are capped by State statute. A change in these caps requires action of both Houses of the General Assembly and approval of the Governor. Benefit provisions are also determined by State statute. The employee enters the employment exchange with the knowledge that the employer's promise is limited not by contract but by law. The employer enters the exchange also knowing that there is a specific, legal limit to its contribution to the pension system. In Ohio, there is no legal means to enforce the unfunded liability of the pension system as against the public employer. State law operates to mitigate/lessen the moral obligation of the public employer to the employee, because all parties enter the employment exchange with notice as to the law. The pension system is responsible for the administration of the plan.

Most long-term liabilities have set repayment schedules or, in the case of compensated absences (i.e. sick and vacation leave), are satisfied through paid time-off or termination payments. There is no repayment schedule for the net pension liability. As explained above, changes in pension benefits, contribution rates, and return on investments affect the balance of the net pension liability, but are outside the control of the local government. In the event that contributions, investment returns, and other changes are insufficient to keep up with required pension payments, State statute does not assign/identify the responsible party for the unfunded portion. Due to the unique nature of how the net pension liability is satisfied, this liability is separately identified within the long-term liability section of the statement of net position.

In accordance with GASB 68, the Association's statements prepared on an accrual basis of accounting include an annual pension expense for their proportionate share of each plan's *change* in net pension liability not accounted for as deferred inflows/outflows.

The tables presented in this Management's Discussion and Analysis provide a summary of the Association's financial position and results of operations for 2016 and 2015, respectively.

The Statement of Net Position

This statement reports all of the Association's assets and liabilities as of December 31, 2016 categorized as current and non-current assets and liabilities. Assets consist mainly of cash and investments. Liabilities consist mainly of claims reserves and members' refunds payable. Reporting for GASB 68 has created two new categories: deferred outflows of resources and deferred inflows of resources. The balance of total assets and deferred outflows less total liabilities and deferred inflows is reported as "net position."

The table below presents a condensed summary information of the Association's net position as of December 31, 2016 compared to December 31, 2015.

Management's Discussion And Analysis For The Year Ended December 31, 2016

Condensed Statement of Net Position

	2016	2015
CURRENT ASSETS	_	
Cash and cash equivalents	\$1,216,966	\$3,142,010
Accounts receivable	127,290	169,065
Prepaid Expenses	239,337	224,063
NONCURRENT ASSETS		
Investments	17,177,680	15,310,297
Net pension asset	40	0
Capital assets less depreciation	6,395	8,756
Total assets	18,767,708	18,854,191
DEFERRED OUTFLOWS OF RESOURCES		
Deferred outflows of resouces related to pension	144,343	58,672
Total deferred outflows of resources	144,343	58,672
•		
CURRENT LIABILITIES		
Claims reserve	1,106,284	997,461
Members' refunds	4,099,542	5,237,182
Members' credits	80,000	55,000
Accounts payable and accrued liabilities	31,312	43,350
Total current liabilties	5,317,138	6,332,993
NONCURRENT LIABILITIES		
Clams reserve	2,007,024	1,700,720
Net pension liability	362,534	289,865
Total noncurrent liabilities	2,369,558	1,990,585
Total Liabilities	7,686,696	8,323,578
DEFERRED INFLOWS OF RESOURCES		
Deferred inflows of resources related to pension	31,024	5,392
Total deferred inflows of resources	31,024	5,392
TOTAL NET POSITION		
Invested in capital assets	6,395	8,756
Unrestricted	11,187,936	10,575,137
Total net position	\$11,194,331	\$10,583,893

Note that the liability for claims reserve as of December 31, 2015 was restated into current and noncurrent portions for the purposes of this presentation.

Management's Discussion And Analysis For The Year Ended December 31, 2016

Claims reserve is a liability for net unpaid losses, including incurred but not reported losses, and loss adjustment expenses. This amount is established annually with the assistance of an outside actuary. Claims liability is separated into current and noncurrent portions based upon a combination of an analysis of outstanding claims and historical experience. In 2016, claims reserves increased by \$415,127, or 15%, due to unfavorable claims development in prior years' estimated ultimate losses. This follows a decrease \$851,938, or 24%, in 2015 due to significant favorable claims development.

% Claims Reserves by Line of Business As of December 31

Line of Business	<u>2016</u>	<u>2015</u>
Auto Liability	3%	6%
General Liability	93%	86%
Property	4%	8%

The liability for members' refunds reflects the funds being held in MVRMA's General Reserve Fund (GRF). The General Reserve Fund accounts for surplus funds returned, but not yet paid, to members from closed loss years. Once surplus funds are returned to the members, these funds are deposited in the GRF to the account of each individual member. Members may withdraw their GRF funds within 30 days after the closure of a loss year, or in January of each year, or for the payment of any MVRMA invoice at any time throughout the year. The members' refunds liability decreased as of December 31, 2016 due to members' withdrawals throughout the year and the closure of no loss years in 2016.

Net position is divided into two categories, net investment in capital assets and unrestricted. The net investment in capital assets represents the net book value of capital assets, while the remaining net position amount is unrestricted for future use by the Association. Net position invested in capital assets decreased from \$8,756 to \$6,395 during 2016 as there was little capital asset purchase activity during the year. Total net position increased in 2016 by \$610,438, or 5.8%, primarily due to the closure of no loss years.

The Statement of Revenues, Expenses and Changes in Net Position

This statement reflects the operating and non-operating revenue and expenses for the fiscal year and how the Association's net position changed during the year. As noted previously, MVRMA's net position increased by 5.8% from 2015 to 2016.

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Management's Discussion And Analysis For The Year Ended December 31, 2016

Condensed Statement of Revenues, Expenses, and Changes in Net Position

Operating Revenue	2016 4,493,666	2015 4,462,299
Operating Expenses:		
Incurred claims and claims adjustment		
expenses	1,890,342	651,209
Reinsurance premiums	864,407	885,468
Members' dividends	51,712	2,389,527
General and administrative expenses	826,140	758,871
Total Operating Expenses	3,632,601	4,685,075
Operating Income (Loss)	861,065	-222,776
Nonoperating Revenue (Expense):		
Interest income and realized and		
unrealized gains (losses) on investments	-250,323	-238,930
Other nonoperating revenue (expense)	-304	166
Changes in Net Position	610,438	-461,540
Net position, beginning of year	10,583,893	11,045,433
Net position, end of year	11,194,331	10,583,893

Operating revenue consists primarily of members' contributions. The major categories of operating expenses are claims and claims adjustment expenses, reinsurance premiums, general and administrative expenses, and dividends to members. Non-operating revenue and expense is primarily related to investment activity.

Member contributions made up 94% of the Association's operating revenue in 2016 and 2015.

Members' contributions are tracked so that each year may be evaluated independently. When preparing its annual budget, MVRMA determines the total amount needed to fund its operations and collects the amount needed from members in proportion to their claims history and risk exposures. Each member's allocation is determined by dividing the sum of the following seven factors by 9:

- 1. The member's population as of the most recent census as a percentage of the total of all members' populations;
- 2. The number of the member's sworn full-time police personnel as a percentage of the total of all members' full-time sworn police;

Management's Discussion And Analysis For The Year Ended December 31, 2016

- 3. The number of the member's other full-time employees as a percentage of the total of all members' other full-time employees;
- 4. The number of the member's titled vehicles as a percentage of the total of all members' titled vehicles;
- 5. The member's insurable property values as a percentage of the total of all members' insurable property values;
- 6. The member's net operating expenses as a percentage of the total of all members' net operating expenses; and
- 7. The member's average annual adjusted losses for the last four years as the percentage of the total of all members' average annual adjusted losses for the last four years (weighted three times).

Changes in net position can vary widely from year to year. This variation is chiefly due to fluctuations in incurred claims expense and members' dividends. Although the incurred claims expense is subject to variability, it is moderated somewhat by the insuring of losses above the pool's self-insured retentions of \$500,000 per occurrence for liability claims and \$250,000 for property claims. Members' dividends expense is incurred when the Board of Trustees closes a loss year and refunds the residual assets in the loss year to the members. These amounts can be significant and do not necessarily occur each year.

The Statement of Cash Flows

The Statement of Cash Flows allows readers of the financial statements to assess the Association's ability to generate sufficient cash flow to meet its obligations in a timely manner. Cash and equivalents decreased by \$1,925,044 in 2016 due to increased investments.

Cash flows from operating activities	2016 \$148,178	2015 (\$50,714)
Cash flows used in capital and related financing activities	(3,477)	(1,631)
Cash flows from (used in) investing activities	(2,069,745)	436,492
Net change in cash and cash equivalents	(1,925,044)	384,147
Cash and Cash Equivalents - Beginning of year Cash and Cash Equivalents - End of year	3,142,010 \$1,216,966	2,757,863 \$3,142,010

Management's Discussion And Analysis For The Year Ended December 31, 2016

2017 Projects and Future Plans

For 2017, the Association's liability limits of coverage will remain \$12 million per occurrence. The first layer of liability reinsurance coverage, purchased from Government Entities Mutual, a protected cell reinsurance captive domiciled in the District of Columbia, provides limits of \$4.5 million excess of the Association's self-insured retention of \$500,000. The next layer of reinsurance with General Reinsurance Corporation is \$7 million excess of \$5 million.

Property insurance for the period 7/1/16-7/1/17 was again placed with the Alliant Property Insurance Program (APIP). For the third consecutive year, MVRMA's premium rate decreased – by 2.8% for the current policy year – due to favorable market conditions and improving loss experience. At this time, MVRMA is preparing for its 7/1/17 renewal and is anticipating little to no rate increase again.

Contacting MVRMA

This financial report is designed to provide members, creditors and investors with a general overview of MVRMA's finances and to show MVRMA's accountability for the monies it receives. If you have any questions about this report or need additional information, contact the Executive Director by writing 4625 Presidential Way, Kettering, OH 45429 or calling (937) 438-8878.

STATEMENT OF NET POSITION

DECEMBER 31, 2016

CURRENT ASSETS: \$1,216,966 Cash and cash equivalents \$1,216,966 Accounts receivable: 61,916 Interest and Other 65,374 Prepaid items 239,337 Total current assets 1,583,593 NONCURRENT ASSETS: 17,177,680 Net pension asset 40 Capital Assets: 40 Audio-visual material 73,758 Equipment 29,528 Leasehold improvements 12,281 Office furniture 18,028 Total capital assets 133,595 Accumulated depreciation (127,200) Capital assets - net 6,395 Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERRED OUTFLOWS OF RESOURCES Deferred outflows of resources related to pension 144,343 Total Deferred Outflows 144,343 Claims reserve 1,106,284 Members' refunds 4,099,542 Members' refunds 4,099,542 Members' refunds 80,000	ASSETS	2016
Claims deductibles 61,916 Interest and Other 65,374 Prepaid items 239,337 Total current assets 1,583,593 NONCURRENT ASSETS: 117,177,680 Investments 17,177,680 Net pension asset 40 Capital Assets: 40 Equipment 29,528 Leasehold improvements 12,281 Office furniture 18,028 Total capital assets 133,595 Accumulated depreciation (127,200) Capital assets - net 6,395 Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERED OUTFLOWS OF RESOURCES Deferred outflows of resources related to pension 144,343 Total Deferred Outflows 144,343 CURRENT LIABILITIES: 1 Claims reserve 1,106,284 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2	Cash and cash equivalents	\$1,216,966
Prepaid items 239,337 Total current assets 1,583,593 NONCURRENT ASSETS: 17,177,680 Net pension asset 40 Capital Assets: 40 Audio-visual material 73,758 Equipment 29,528 Leasehold improvements 12,281 Office furniture 18,028 Total capital assets 133,595 Accumulated depreciation (127,200) Capital assets - net 6,395 Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERRED OUTFLOWS OF RESOURCES 144,343 Deferred outflows of resources related to pension 144,343 Total Deferred Outflows 144,343 LIABILITIES Claims reserve 1,106,284 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: Claims reserve 2,007,024 Net Pension Liability 362,534<		61,916
Total current assets 1,583,593 NONCURRENT ASSETS: 17,177,680 Investments 40 Capital Assets: 37,758 Audio-visual material 73,758 Equipment 29,528 Leasehold improvements 12,281 Office furniture 18,028 Total capital assets 133,595 Accumulated depreciation (127,200) Capital assets - net 6,395 Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERRED OUTFLOWS OF RESOURCES 144,343 Deferred outflows of resources related to pension 144,343 LIABILITIES CURRENT LIABILITIES: Claims reserve 1,106,284 Members' refunds 4,099,542 Members' refunds 4,099,542 Members' refunds 9,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: Claims reserve Net Pension Liability 362,534 Total Liabilities		
NONCURRENT ASSETS: 17,177,680 Investments 17,177,680 Net pension asset 40 Capital Assets: 373,758 Audio-visual material 73,758 Equipment 29,528 Leasehold improvements 12,281 Office furniture 18,028 Total capital assets 133,595 Accumulated depreciation (127,200) Capital assets - net 6,395 Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERRED OUTFLOWS OF RESOURCES Deferred outflows of resources related to pension 144,343 LABILITIES CURRENT LIABILITIES: 2 Claims reserve 1,106,284 Members' refunds 4,099,542 Members' refunds 4,099,542 Members' refunds 30,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2 Claims reserve 2,007,024 <td< td=""><td></td><td></td></td<>		
Investments	Total current assets	1,583,593
Net pension asset 40 Capital Assets: 73,758 Audio-visual material 73,758 Equipment 29,528 Leasehold improvements 12,281 Office furniture 18,028 Total capital assets 133,595 Accumulated depreciation (127,200) Capital assets - net 6,395 Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERRED OUTFLOWS OF RESOURCES Deferred outflows of resources related to pension 144,343 Total Deferred Outflows LIABILITIES CURRENT LIABILITIES: 1,106,284 Members' refunds 4,099,542 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: Claims reserve Ret Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES	NONCURRENT ASSETS:	
Capital Assets: 73,758 Equipment 29,528 Leasehold improvements 12,281 Office furniture 18,028 Total capital assets 133,595 Accumulated depreciation (127,200) Capital assets - net 6,395 Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERRED OUTFLOWS OF RESOURCES Deferred outflows of resources related to pension 144,343 Total Deferred Outflows 144,343 LIABILITIES CURRENT LIABILITIES: Claims reserve 1,106,284 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2 Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION 11,18		
Audio-visual material 73,758 Equipment 29,528 Leasehold improvements 12,281 Office furniture 18,028 Total capital assets 133,595 Accumulated depreciation (127,200) Capital assets - net 6,395 Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERRED OUTFLOWS OF RESOURCES Deferred outflows of resources related to pension 144,343 Total Deferred Outflows LIABILITIES Claims reserve 1,106,284 Members' refunds 4,099,542 Members' redits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2 Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Infl	Net pension asset	40
Equipment 29,528 Leasehold improvements 12,281 Office furniture 18,028 Total capital assets 133,595 Accumulated depreciation (127,200) Capital assets - net 6,395 Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERRED OUTFLOWS OF RESOURCES Deferred outflows of resources related to pension 144,343 Total Deferred Outflows 144,343 LIABILITIES Claims reserve 1,106,284 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2 Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION <td>Capital Assets:</td> <td></td>	Capital Assets:	
Leasehold improvements 12,281 Office furniture 18,028 Total capital assets 133,595 Accumulated depreciation (127,200) Capital assets - net 6,395 Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERRED OUTFLOWS OF RESOURCES Deferred outflows of resources related to pension 144,343 Total Deferred Outflows LIABILITIES CURRENT LIABILITIES: Claims reserve 1,106,284 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION Investment in capital assets		
Office furniture 18,028 Total capital assets 133,595 Accumulated depreciation (127,200) Capital assets - net 6,395 Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERRED OUTFLOWS OF RESOURCES Deferred outflows of resources related to pension 144,343 Total Deferred Outflows 144,343 LIABILITIES CURRENT LIABILITIES: 1,106,284 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: Claims reserve Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION 11,187,936	= =	
Total capital assets 133,595 Accumulated depreciation (127,200) Capital assets - net 6,395 Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERRED OUTFLOWS OF RESOURCES Deferred outflows 144,343 LIABILITIES CURRENT LIABILITIES: 1,106,284 Members' refunds 4,099,542 Members' redits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2 Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION Investment in capital assets 6,395 Unrestricted 11,187,936		
Accumulated depreciation (127,200) Capital assets - net 6,395 Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERRED OUTFLOWS OF RESOURCES Deferred outflows of resources related to pension 144,343 Total Deferred Outflows 144,343 LIABILITIES CURRENT LIABILITIES: Claims reserve 1,106,284 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2 Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 NET POSITION Investment in capital assets 6,395 Unrestricted 11,187,936		
Capital assets - net 6,395 Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERRED OUTFLOWS OF RESOURCES Deferred outflows of resources related to pension 144,343 Total Deferred Outflows 144,343 LIABILITIES CURRENT LIABILITIES: 1,106,284 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2,007,024 Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION Investment in capital assets 6,395 Unrestricted 11,187,936	<u> </u>	
Total noncurrent assets 17,184,115 Total Assets 18,767,708 DEFERRED OUTFLOWS OF RESOURCES Deferred outflows of resources related to pension 144,343 Total Deferred Outflows 144,343 LIABILITIES CURRENT LIABILITIES: 1,106,284 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION Investment in capital assets 6,395 Unrestricted 11,187,936		
DEFERRED OUTFLOWS OF RESOURCES Deferred outflows of resources related to pension 144,343 Total Deferred Outflows 144,343 LIABILITIES CURRENT LIABILITIES: Claims reserve 1,106,284 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: Claims reserve Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION Investment in capital assets 6,395 Unrestricted 11,187,936	•	
Deferred outflows of resources related to pension 144,343 Total Deferred Outflows 144,343 LIABILITIES SCURRENT LIABILITIES: Claims reserve 1,106,284 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION Investment in capital assets 6,395 Unrestricted 11,187,936	Total Assets	18,767,708
Deferred outflows of resources related to pension 144,343 Total Deferred Outflows 144,343 LIABILITIES SCURRENT LIABILITIES: Claims reserve 1,106,284 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION Investment in capital assets 6,395 Unrestricted 11,187,936	DEFERRED OUTFLOWS OF RESOURCES	
Total Deferred Outflows 144,343 LIABILITIES CURRENT LIABILITIES: Claims reserve 1,106,284 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2,007,024 Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES 5,317,138 Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION 1 Investment in capital assets 6,395 Unrestricted 11,187,936		144,343
CURRENT LIABILITIES: 1,106,284 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2,007,024 Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES 31,024 Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION 5,395 Investment in capital assets 6,395 Unrestricted 11,187,936	• • • • • • • • • • • • • • • • • • •	
CURRENT LIABILITIES: 1,106,284 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2,007,024 Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES 5,317,138 Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION 31,024 Investment in capital assets 6,395 Unrestricted 11,187,936	LIARILITIES	
Claims reserve 1,106,284 Members' refunds 4,099,542 Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2,007,024 Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES 5 Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION 5,395 Unrestricted 11,187,936		
Members' credits 80,000 Accounts payable and accrued liabilities 31,312 Total current liabilities 5,317,138 NONCURRENT LIABILITIES: 2,007,024 Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION 5,395 Investment in capital assets 6,395 Unrestricted 11,187,936		1,106,284
Accounts payable and accrued liabilities Total current liabilities NONCURRENT LIABILITIES: Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows NET POSITION Investment in capital assets Unrestricted 31,312 2,007,024 362,534 7,686,696	Members' refunds	4,099,542
Total current liabilities 5,317,138 NONCURRENT LIABILITIES: Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION Investment in capital assets 6,395 Unrestricted 11,187,936	Members' credits	80,000
NONCURRENT LIABILITIES: Claims reserve 2,007,024 Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION Investment in capital assets 6,395 Unrestricted 11,187,936	* *	
Claims reserve2,007,024Net Pension Liability362,534Total Noncurrent liabilities2,369,558Total Liabilities7,686,696DEFERRED INFLOWS OF RESOURCESDeferred inflows of resources related to pension31,024Total Deferred Inflows31,024NET POSITIONInvestment in capital assets6,395Unrestricted11,187,936	Total current liabilities	5,317,138
Net Pension Liability 362,534 Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION Investment in capital assets 6,395 Unrestricted 11,187,936	NONCURRENT LIABILITIES:	
Total Noncurrent liabilities 2,369,558 Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION Investment in capital assets 6,395 Unrestricted 11,187,936	Claims reserve	2,007,024
Total Liabilities 7,686,696 DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION Investment in capital assets 6,395 Unrestricted 11,187,936	-	362,534
DEFERRED INFLOWS OF RESOURCES Deferred inflows of resources related to pension 31,024 Total Deferred Inflows 31,024 NET POSITION Investment in capital assets 6,395 Unrestricted 11,187,936	Total Noncurrent liabilities	2,369,558
Deferred inflows of resources related to pension Total Deferred Inflows NET POSITION Investment in capital assets Unrestricted 31,024 6,395 11,187,936	Total Liabilities	7,686,696
Total Deferred Inflows 31,024 NET POSITION Investment in capital assets Unrestricted 6,395 Unrestricted 11,187,936	DEFERRED INFLOWS OF RESOURCES	
NET POSITION Investment in capital assets Unrestricted 6,395 11,187,936	Deferred inflows of resources related to pension	31,024
Investment in capital assets 6,395 Unrestricted 11,187,936	Total Deferred Inflows	31,024
Investment in capital assets 6,395 Unrestricted 11,187,936	NET POSITION	
Unrestricted 11,187,936		6,395
Total net position \$11,194,331	•	
	Total net position	\$11,194,331

See notes to the basic financial statements

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION FOR THE YEAR ENDED DECEMBER 31, 2016

	2016
OPERATING REVENUES: Members' contributions	\$4.211.270
Claim deductibles	\$4,211,279 188,899
Other	93,488
Total operating revenues	4,493,666
OPERATING EXPENSES:	
Claim expenses:	
Incurred claims and claim adjustment expenses	1,890,342
Reinsurance/insurance premiums	864,407
Members' Dividends	51,712
Total claim expenses	2,806,461
General and administrative expenses:	
Professional fees	142,083
Salaries and benefits	483,155
Depreciation	5,534
Rent	36,400
Other	158,968
Total general and administrative fees	826,140
Total operating expenses	3,632,601
OPERATING INCOME (LOSS)	861,065
NON-OPERATING REVENUE (EXPENSE):	
Gain/(Loss) on disposal of capital assets	(304)
Interest income	201,828
Net gain/(loss) on investments	(452,151)
Total Non-operating Revenue (Expense)	(250,627)
CHANGE IN NET POSITION	610,438
NET POSITION	
Beginning of year	10,583,893
End of year	\$11,194,331

See notes to the basic financial statements

STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED DECEMBER 31, 2016

	2016
CASH FLOWS FROM OPERATING ACTIVITIES:	
Cash received for member contributions	\$4,236,279
Cash received for deductible reimbursements	177,498
Cash received from other sources	117,145
Cash payments for claims	(1,411,045)
Cash payments for general reserve fund payouts	(1,312,514)
Cash payments for reinsurance premiums	(867,647)
Cash payments for professional fees	(173,288)
Cash payments for employment expenses	(468, 265)
Cash payments for rent	(36,400)
Cash payments for other expenses	(113,585)
Net cash provided by (used in) operating activities	148,178
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:	
Purchase of capital assets	(3,477)
Net cash provided by (used in) capital and related financing activities	(3,477)
CASH FLOWS FROM INVESTING ACTIVITIES:	
Investment purchases	(8,355,392)
Investment sales/maturities	6,035,858
Interest and dividends on investments	249,789
Net cash provided by (used in) investing activities	(2,069,745)
NET CHANGE IN CASH AND CASH EQUIVALENTS	(1,925,044)
CASH AND CASH EQUIVALENTS:	
Beginning of Year	3,142,010
End of Year	\$1,216,966

See notes to the basic financial statements

STATEMENT OF CASH FLOWS (Continued) FOR THE YEAR ENDED DECEMBER 31, 2016

	2016
RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH	
PROVIDED BY (USED IN) OPERATING ACTIVITIES	ΦΩ < 1.0 < 5
Operating Income (Loss)	\$861,065
Adjustments to reconcile change in net position to net cash provided by	
(used in) operating activities: Depreciation	5,534
Depreciation	3,334
(Increase) / decrease in assets:	
Claims deductibles receivable	(11,401)
Reinsurance receivable	64,170
Other receivables	37
Prepaid items	(15,274)
Net pension asset	(40)
(Increase) / decrease in deferred outflows:	
Deferred outflows of resources related to pension	(85,671)
Increase / (decrease) in liabilities:	
Claims reserve	415,127
Accounts payable, accrued liabilities, members' credits and	
members' refunds	(1,183,670)
Net pension liability	72,669
Increase / (decrease) in deferred inflows:	
Deferred inflows of resources related to pension	25,632
Net cash provided by (used in) operating activities	\$148,178

NON-CASH INVESTING ACTIVITIES:

See notes to the basic financial statements

⁻ Miami Valley Risk Management Association, Inc. had a decrease in the fair value of investments in the amount \$452,151 during 2016.

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

NOTE 1 – ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES

Miami Valley Risk Management Association, Inc. (the "Association") is an Ohio not-for-profit Corporation organized for the public purpose of enabling its member political subdivisions to obtain insurance coverage. It provides methods for paying claims, and provides a formalized, jointly administered self-insurance pool. In addition to the self-insurance pool, the Association provides risk management services, loss prevention programs, and other educational programs and materials. The members of the Association include the following cities and villages within the State of Ohio: Beavercreek, Bellbrook, Blue Ash, Centerville, Englewood, Kettering, Madeira, Mason, Miamisburg, Montgomery, Piqua, Sidney, Springdale, Tipp City, Troy, Vandalia, Indian Hill, West Carrollton, Wilmington and Wyoming.

Basis of Accounting – The Association follows the accrual basis of accounting as required for enterprise funds and is not legally required to adopt a budget. All transactions are accounted for in a single enterprise fund in accordance with Governmental Accounting Standards Board (GASB) Statement No. 62, Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements.

Member and Supplemental Contributions – The Association has classified its revenues as either operating or non-operating. Non-operating revenue primarily is the result of earning investment income. Member and supplemental contributions are recognized on the accrual basis and are recorded as revenue in the period earned. Member contributions are calculated and collected annually to produce a sum of money within the self-insurance pool adequate to fund administrative expenses and claims of the Association and to create adequate reserves for claims and unallocated loss adjustment expenses.

Under the terms of membership, should annual member contributions not be sufficient to fund ultimate losses, establish adequate reserves and cover administrative expenses, the Board of Trustees may require supplemental contributions. Supplemental contributions may be assessed during the entire life of the Association and any later period when claims or expenses, which are attributable to any membership year during which the event or claim occurred, need to be paid. Upon approval of the Board of Trustees, transfers from the Shock Loss Fund ("SLF") (see note 6) may occur, in lieu of supplemental contributions. There were no supplemental contributions in 2016.

Cash and cash equivalents consist of deposits with financial institutions, and a State of Ohio depository institution, having an original maturity of 90 days or less.

Claims deductibles represent the first \$2,500 of any claim paid by the Association which is reimbursed by Association members.

Investments are stated at fair value. Realized gains and losses are determined on the identified cost basis.

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

The Association's investment policy authorizes the Association to invest in the following:

- 1.) United States treasury bills, notes, bonds, or any other obligation or security issued by the United States treasury or any other obligation guaranteed as to principal and interest by the United States;
- 2.) Bonds, notes, debentures, or any other obligations or securities issued by any federal agency or instrumentality, including government sponsored enterprises. All federal agency securities shall be direct issuances of federal government agencies or instrumentalities;
- 3.) Deposits in eligible financial institutions;
- 4.) Bonds, notes, or other obligations of the State of Ohio and its political subdivisions;
- 5.) Investment grade corporate bonds (industrial, utility, or financial). Corporate bonds purchased shall be rated not lower than A2 by Moody's or A by S&P at the date of purchase;
- 6.) The State Treasury Asset Reserve of Ohio (STAR Ohio) or such successor investment pools operated or managed by the Treasurer of the State of Ohio; and
- 7.) No-load money market mutual funds consisting exclusively of obligations described in 1 or 2 above.

Capital assets are carried at cost. Depreciation is provided on the straight-line basis at rates which are expected to amortize the costs of the assets over their estimated useful lives. All major classes of depreciable assets have a useful life of five years, except audio-visual material which is three years.

Claim Reserves and Unallocated Loss Adjustment Expenses – Provisions for claims reserves and claims adjustment expenses are based on information reported by members and are calculated by the Association's claims administrator and actuary. These amounts represent an estimate of reported, unpaid claims, plus a provision for claims incurred but not reported. The Association's management believes the estimate of the liability for claims reserves is reasonable and supported by valid actuarial calculations; however, actual incurred losses and loss adjustment expenses may not conform to the assumptions inherent in the determination of the liability. Accordingly, the ultimate settlement of losses and related loss adjustment expenses may vary from the estimated amounts included in the accompanying financial statements. Should the provision for claims reserves not be sufficient, supplemental contributions as discussed above may be assessed subsequent to Board approval.

Member Credits – The bylaws of the Association provide that surplus operating funds may be used to credit future annual contributions at the discretion of the Board of Trustees. For the year ended December 31, 2016, member contributions are presented net of a credit of \$80,000.

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

Member Dividends – Dividends to members consist of refunds from closed loss years and refunds from the Shock Loss Fund. There were no closed loss year refunds in 2016. Refunds are made to members from the Shock Loss Fund (see Note 6) to the extent the member's Shock Loss Fund balance exceeds its required balance by greater than forty percent. Such refunds were \$51,712 in 2016.

Net Position – Net position represents the excess of revenues over expenses since inception. It is displayed in three components as follows:

Investment in capital assets consists of capital assets, net of accumulated depreciation.

<u>Restricted</u> consists of net position that is legally restricted by outside parties or by law through constitutional provisions or enabling legislation.

<u>Unrestricted</u> consists of net position that does not meet the definition of "restricted" or "net investment in capital assets."

As of December 31, 2016, the Association had no "restricted" net position. Under certain conditions, the Association may distribute, as member dividends, all or part of the net position to those members who constituted the self-insurance pool during the years when such surplus member funds were earned, provided that such members must also be members of the Association in the year in which said distribution is made.

In the event of termination of the Association, all members of the Association, past and present, are obligated for any necessary supplemental contributions attributable to the years during which they were members. After all claims and related expenses have been properly paid or reserves established for the payment of any such claims, any surplus member funds shall be distributed to members in proportion to their interest in such surplus member funds.

Pensions – For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the pension plans and additions to and deductions from their fiduciary net position have been determined on the same basis as they are reported by the pension systems. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. The pension systems report investments at fair value.

Income taxes – The Internal Revenue Service has ruled that premiums and investment income with respect to premium receipts are excluded from taxable income of the Association under Section 115 of the Internal Revenue Code of 1986. Therefore, the Association is not subject to tax.

Operating Revenues and Expenses – Operating revenues are those revenues that are generated directly from primary activities. For the Association, these revenues are member contributions and claims deductibles received from members. Operating expenses are the necessary costs

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

incurred to provide the services that are the primary activity. All revenue and expenses not meeting these definitions are reported as non-operating.

Use of Estimates – The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Fair Value Measurements – The Association categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

Prepaid Items – Prepaid Items represent expenses which have been paid, but not yet incurred under GAAP. These items are reported as an asset on the statement of net position.

Deferred Inflows of Resources and Deferred Outflows of Resources – In addition to assets, the statement of net position will report a separate section for deferred outflows of resources. Deferred outflows of resources, represents a consumption of net position that applies to a future period and will not be recognized as an outflow of resources (expense) until then. For the Association, deferred outflows of resources have been reported for the following items related to the Association' net position asset/liability: (1) the net difference between projected and actual investment earnings on pension plan assets and (2) the Association's contributions to the pension systems subsequent to the measurement date. The deferred outflows of resources related to pension are further explained in Note 8.

In addition to liabilities, the statement of net position will report a separate section for deferred inflows of resources. Deferred inflows of resources represent an acquisition of net position that applies to a future period and will not be recognized as an inflow of resources (revenue) until that time. The Association reported deferred inflows of resources for (1) the difference between expected and actual experience and (2) the difference between employer's contributions and the employer's proportional share of contributions. These deferred inflows of resources related to pension is further explained in Note 8.

NOTE 2 – DEPOSITS AND INVESTMENTS

Deposits as of December 31, 2016

Custodial Credit Risk – Custodial credit risk with respect to bank deposits is the potential for loss of the Association's deposits in the event of the failure of a depository financial institution. Protection of the Association's cash and deposits is provided by the Federal Deposit Insurance Corporation as well as qualified securities pledged by the institution holding the assets. The

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

Association's financial institutions collateralize all the Association's deposits. The face value of the pooled collateral must equal at least 105% of funds deposited. Collateral is held by trustees including the Federal Reserve Bank and designated third parties of the financial institution.

At December 31, 2016, the carrying amount of the Association's deposits was \$1,216,966. The bank balance was \$1,261,727, and of this amount, \$250,000 was insured by federal depository insurance. Based on the criteria described in GASB Statement No. 40, "Deposit and Investment Risk Disclosures", \$1,011,727 of the Association's bank balance was exposed to custodial risk and was collateralized with securities held by the pledging financial institution's trust department or agent but not in the Association's name.

Investments as of December 31, 2016

At December 31, 2016, the Association had the following investments:

		Investment Maturities			
<u>Investment</u>	Fair Value	Less than 6 months	6 mo. to 1 year	1 to 3 years	Greater than 3 years
FHLB	\$1,000,080				\$1,000,080
FFCB	1,531,800			892,835	638,965
FHLMC	4,228,989		425,544	3,267,277	536,168
FNMA	853,288				853,288
Corporate Bonds	8,813,523	400,402	1,155,787	5,793,890	1,463,444
Government Entities					
Mutual, Inc. (see Note 6)	750,000				750,000
Total	\$17,177,680	\$400,402	\$1,581,331	\$9,954,002	\$5,241,945

Note: For the purposes of disclosing interest rate risk of callable securities, the maturity date is the estimated call date.

The weighted average maturity of investments is 2.38 years.

The Association's investments in U.S. government money market mutual funds are valued using quoted market prices in active markets (Level 1 inputs). The Association's investments in federal agency securities (FHLB, FFCB, FHLMC, FNMA) and corporate bonds are valued using quoted prices in markets that are not considered to be active, dealer quotations or alternative pricing sources for familiar assets or liabilities for which all significant inputs are observable, either directly or indirectly (Level 2 inputs).

Interest Rate Risk – Interest rate risk is the risk that the value of investments will decrease as a result of an increase in interest rates. To limit interest rate risk, the Association's investment policy limits security purchases to those that mature within five years of the settlement date.

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

Credit Risk – Credit risk for holders of debt securities is the risk that the debtor will not be able to make its scheduled payments. The Association's investments with the Federal Home Loan Mortgage Corporation, Federal Home Loan Bank, Federal National Mortgage Association and Federal Farm Credit Bank are rated AA+ by Standard & Poor's. The Association's investment in GEM is not rated. The Association's investment policy requires corporate bonds, when purchased, to be rated not lower than A2 by Moody's or A by Standard & Poor's. As of 12/31/16, all corporate bonds held by the Association met or exceeded these benchmarks.

Custodial Credit Risk – For an investment, custodial credit risk is the risk that an investor might be unable to recover the value of an investment in the possession of an outside third party should the counterparty to the investment transaction fail. The Association's investment in Government Entities Mutual is subject to custodial credit risk. The Association's investments in debt securities of FHLB, FNMA, FHLMC, FFCB and the various corporate issuers are either registered in the Association's name or held in pledge accounts of the custodial financial institutions and the underlying records of the custodial financial institutions support the Association's claim to the investments; therefore, these investments are considered to be held in the Association's name and are not subject to custodial credit risk. The Association's investment policy does not specifically address credit risk beyond restricting the Association to invest only in securities authorized.

Concentration of Credit Risk – The Association's investment policy states "no more than 25% of the total investment portfolio shall be invested with any one eligible financial institution as a time deposit at the time a deposit is made, exclusive of United States Treasury securities, all Federal Agency securities, and STAR Ohio." Five percent or more of the Association's investments were in the following at December 31, 2016:

<u>Investment</u>	% as of 12/31/16
Federal Home Loan Bank	5.8%
Federal Farm Credit Bank	8.9%
Federal Home Loan Mortgage Corporation	24.6%
Federal National Mortgage Association	5.0%

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NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

NOTE 3 – CAPITAL ASSETS

Capital assets activity for the year ended December 31, 2016, was as follows:

	Balance	A 1 1''	Transfers/	Balance
	01/01/16	Additions	Disposals	12/31/16
Capital Assets Being Depreciated	:			
Audio-Visual	\$73,758			\$73,758
Equipment	35,913	3,477	(9,862)	\$29,528
Leasehold Improvements	12,281			\$12,281
Office Furniture	18,028			\$18,028
Total Property and Equipment	139,980	3,477	(9,862)	133,595
Less: Accumulated Depreciation				
Audio-Visual	(72,312)	(779)		(\$73,091)
Equipment	(30,583)	(4,646)	9,558	(\$25,671)
Leasehold Improvements	(12,281)	0		(\$12,281)
Office Furniture	(16,048)	(109)		(\$16,157)
Total Accumulated Depreciation	(131,224)	(5,534)	9,558	(127,200)
Total Capital Assets Being				
Depreciated, net	\$8,756	(\$2,057)	(\$304)	\$6,395

NOTE 4 – NONCURRENT LIABILITIES

Noncurrent liability activity for the year ended December 31, 2016 was as follows:

	Beginning			Ending	
	Balance	Additions	Reductions	Balance	Current
Net Pension Liability	\$289,865	\$98,301	-\$25,632	\$362,534	\$0

NOTE 5 – SELF-INSURED RETENTION

The Association retains responsibility for the payment of claims within specified self-insured retention limits prior to the application of coverage provided by excess insurance and reinsurance contracts. The Association's per-occurrence retention limit for all liability claims was \$500,000 in 2016. Property claims had a per occurrence retention limit of \$250,000 for 2016. Boiler and machinery had a per occurrence retention limit from \$10,000 to \$350,000 depending upon boiler size. For every occurrence, the member was charged a deductible equal to the amount of the claim or \$2,500, whichever was less.

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

NOTE 6 – INSURANCE AND REINSURANCE CONTRACTS

The Association maintains insurance and reinsurance contracts with insurance carriers who provide various limits of coverage over the Association's self-insured retention limits. Under the Association's bylaws, the Board of Trustees annually determines the types of insurance/reinsurance to purchase as well as appropriate limits. For the loss year ended December 31, 2016, the Association purchased the following types of insurance/reinsurance in excess of the Association's self-insured retention:

Excess Insurance / Reinsurance	Limits of Coverage
General liability (including law enforcement) per occurrence	\$9,500,000
Automobile liability per occurrence	\$9,500,000
Public official liability:	
Per occurrence	\$9,500,000
Per member annual aggregate	\$9,500,000
Employment practices liability:	
Per occurrence	\$9,500,000
Per member annual aggregate	\$9,500,000
Property (excluding flood and earthquake) per occurrence	\$1,000,000,000
Flood and earthquake property coverage – per occurrence and	
annual aggregate	\$25,000,000

In 2016, MVRMA reinsured its casualty program with Government Entities Mutual (a protected cell reinsurance captive domiciled in the District of Columbia) for \$4.5 million excess of MVRMA's \$500,000 self-insured retention and with General Reinsurance Corporation for \$7 million excess of \$5 million.

In 1996, the Association established a Shock Loss Fund (SLF) to replace the aggregate stop-loss policy. The Association's members contribute to the SLF based on a moving target equal to the annual loss fund. The Association's members annually fund approximately 15 percent of the moving target until the balance of the SLF is equivalent to the current year's annual loss fund. Once a member has at least the current year's regular loss fund contribution on account in the Association's SLF, it is not required to contribute additionally to the SLF. Any member whose balance falls below its targeted amount is required to contribute the amount needed to reach its targeted amount, or 15% of the current annual loss year contribution, whichever is less.

In the event that a series of losses or a single loss should exceed the amount of coverage provided by the self-insurance fund and insurance/reinsurance and any amount of supplemental payments for which members are obligated, then the payment of any uncovered loss is the obligation of the individual member or members against which the claims were made. In the unlikely event that all or any of the insurance companies are unable to meet their obligations under the excess insurance and reinsurance contracts, the Association and its members would be responsible for such defaulted amounts in accordance with the applicable policy terms and conditions.

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

NOTE 7 – CLAIMS RESERVE

As discussed in Note 1, the Association establishes a claims reserve liability which includes both reported and unreported insured events and estimates of future payment of losses and related claims adjustment expenses. The changes in the aggregate liabilities for the Association are as follows:

	December 31 2016	December 31 2015
Unpaid claims and claim adjustment expenses - Beginning of Year	\$2,698,181	\$3,550,119
Incurred claims and claim adjustment expenses:		
Provision for insured events of the current year	1,205,338	1,242,672
Change in provision for insured events of prior years	415,661	(833,631)
Change in unallocated expense provision	17,852	(24,129)
Total incurred claims and claim adjustment expenses	1,638,851	384,912
Payments:		
Claims and claim adjustment expenses attributable to		
insured events of the current year	280,585	240,209
Claims and claim adjustment expenses attributable to		
insured events of prior years	943,139	996,641
Aggregate Adjustment		
Total Payments	1,223,724	1,236,850

Unpaid claims and claim adjustment expenses -	¢2 112 200	¢2 (00 101
End of Year	\$3,113,308	\$2,698,181

NOTE 8 - PUBLIC EMPLOYEES RETIREMENT SYSTEM DEFINED BENEFIT PENSION PLAN

Net Pension Liability/Asset

The net pension liability/asset reported on the statement of net position represents a liability or asset to employees for pensions. Pensions are a component of exchange transactions—between an employer and its employees—of salaries and benefits for employee services. Pensions are provided to an employee—on a deferred-payment basis—as part of the total compensation package offered by an employer for employee services each financial period. The obligation to sacrifice resources for pensions is a present obligation because it was created as a result of employment exchanges that already have occurred.

The net pension liability/asset represents the Association's proportionate share of each pension plan's collective actuarial present value of projected benefit payments attributable to past periods of service, net of each pension plan's fiduciary net position. The net pension liability/asset

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

calculation is dependent on critical long-term variables, including estimated average life expectancies, earnings on investments, cost of living adjustments and others. While these estimates use the best information available, unknowable future events require adjusting this estimate annually.

The Ohio Revised Code limits the Association's obligation for this liability to annually required payments. The Association cannot control benefit terms or the manner in which pensions are financed; however, the Association does receive the benefit of employees' services in exchange for compensation including pension.

GASB 68 assumes any net pension liability is solely the obligation of the employer, because (1) they benefit from employee services; and (2) State statute requires all funding to come from these employers. All contributions to date have come solely from these employers (which also includes costs paid in the form of withholdings from employees). State statute requires the pension plans to amortize unfunded liabilities within 30 years. If the amortization period exceeds 30 years, each pension plan's board must propose corrective action to the State legislature. Any resulting legislative change to benefits or funding could significantly affect the net pension liability. Resulting adjustments to the net pension liability would be effective when the changes are legally enforceable.

The proportionate share of each plan's unfunded benefits or overfunded benefits is presented as a long-term *net pension liability* or *net pension asset*, respectively, on the accrual basis of accounting. Any liability for the contractually-required pension contribution outstanding at the end of the year is included in *accounts payable and accrued liabilities* on the accrual basis of accounting.

Plan Description – Ohio Public Employees Retirement System (OPERS)

Plan Description - Association employees, other than full-time police and firefighters, participate in the Ohio Public Employees Retirement System (OPERS). OPERS administers three separate pension plans. The Traditional Pension Plan is a cost-sharing, multiple-employer defined benefit pension plan. The Member-Directed Plan is a defined contribution plan and the Combined Plan is a cost-sharing, multiple-employer defined benefit pension plan with defined contribution features. While members (e.g. Association employees) may elect the Member-Directed Plan and the Combined Plan, substantially all employee members are in OPERS' Traditional Pension Plan.

OPERS provides retirement, disability, survivor and death benefits, and annual cost of living adjustments to members of the Traditional Pension Plan. Authority to establish and amend benefits is provided by Chapter 145 of the Ohio Revised Code. OPERS issues a stand-alone financial report that includes financial statements, required supplementary information and detailed information about OPERS' fiduciary net position that may be obtained by visiting https://www.opers.org/financial/reports.shtml, by writing to the Ohio Public Employees Retirement System, 277 East Town Street, Columbus, Ohio 43215-4642, or by calling 800-222-7377.

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

Senate Bill (SB) 343 was enacted into law with an effective date of January 7, 2013. In the legislation, members were categorized into three groups with varying provisions of the law applicable to each group. The following table provides age and service requirements for retirement and the retirement formula applied to final average salary (FAS) for the three member groups under the Traditional Pension Plan as per the reduced benefits adopted by SB 343 (see OPERS CAFR referenced above for additional information):

Group A Eligible to retire prior to January 7, 2013 or five years after January 7, 2013	Group B 20 years of service credit prior to January 7, 2013 or eligible to retire ten years after January 7, 2013	Group C Members not in other Groups and members hired on or after January 7, 2013
State and Local	State and Local	State and Local
Age and Service Requirements: Age 60 with 60 months of service credit or Age 55 with 25 years of service credit	Age and Service Requirements: Age 60 with 60 months of service credit or Age 55 with 25 years of service credit	Age and Service Requirements: Age 57 with 25 years of service credit or Age 62 with 5 years of service credit
Formula:	Formula:	Formula:
2.2% of FAS multiplied by years of service for the first 30 years and 2.5% for service years in excess of 30	2.2% of FAS multiplied by years of service for the first 30 years and 2.5% for service years in excess of 30	2.2% of FAS multiplied by years of service for the first 35 years and 2.5% for service years in excess of 35

Final average Salary (FAS) represents the average of the three highest years of earnings over a member's career for Groups A and B. Group C is based on the average of the five highest years of earnings over a member's career.

Members who retire before meeting the age and years of service credit requirement for unreduced benefits receive a percentage reduction in the benefit amount.

When a benefit recipient has received benefits for 12 months, an annual cost of living adjustment (COLA) is provided. This COLA is calculated on the base retirement benefit at the date of retirement and is not compounded. For those retiring prior to January 7, 2013, the COLA will continue to be a 3 percent simple annual COLA. For those retiring subsequent to January 7, 2013, beginning in calendar year 2019, the COLA will be based on the average percentage increase in the Consumer Price Index, capped at 3 percent.

Benefits in the Combined Plan consist of both an age-and-service formula benefit (defined benefit) and a defined contribution element. The defined benefit element is calculated on the basis of age, FAS, and years of service. Eligibility regarding age and years of service in the Combined Plan is the same as the Traditional Pension Plan. The benefit formula for the defined benefit component of the plan for State and Local members in transition Groups A and B applies a factor of 1.0% to the member's FAS for the first 30 years of service.

A factor of 1.25% is applied to years of service in excess of 30. The benefit formula for transition Group C applies a factor of 1.0% to the member's FAS and the first 35 years of service and a factor of 1.25% is applied to years in excess of 35. Persons retiring before age 65 with less than 30 years of service credit receive a percentage reduction in benefit. The defined contribution portion of the benefit is based on accumulated member contributions plus or minus any investment gains or

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

losses on those contributions. Members retiring under the Combined Plan receive a 3% COLA adjustment on the defined benefit portion of their benefit.

Defined contribution plan benefits are established in the plan documents, which may be amended by the OPERS's Board of Trustees. Member-Directed Plan and Combined Plan members who have met the retirement eligibility requirements may apply for retirement benefits. The amount available for defined contribution benefits in the Combined Plan consists of the member's contributions plus or minus the investment gains or losses resulting from the member's investment selections. The amount available for defined contribution benefits in the Member-Directed Plan consists of the members' contributions, vested employer contributions and investment gains or losses resulting from the members' investment selections.

Employer contributions and associated investment earnings vest over a five-year period, at a rate of 20% each year. For additional information, see the Plan Statement in the OPERS CAFR.

Funding Policy - The Ohio Revised Code (ORC) provides statutory authority for member and employer contributions as follows:

	State	
	and Loc	al
2016 Statutory Maximum Contribution Rates		
Employer	14.0	%
Employee	10.0	%
2016 Actual Contribution Rates		
Employer:		
Pension	12.0	%
Post-employment Health Care Benefits	2.0	%
Total Employer	14.0	%
1 7		
Employee	10.0	%

Employer contribution rates are actuarially determined and are expressed as a percentage of covered payroll.

The Association's contractually required contribution for the Traditional Pension Plan and the Member-Directed Plan was \$37,441 for 2016. Of this amount, \$1,760 is reported as accounts payable and accrued liabilities.

Pension Liabilities/Assets, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

The net pension liability and net pension asset for the OPERS Traditional Pension Plan and Combined Plan and Member-Directed Plan, respectively, were measured as of December 31, 2015,

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

and the total pension liability or asset used to calculate the net pension liability or asset was determined by an actuarial valuation as of that date. The Association's proportion of the net pension liability or asset was based on the Association's share of contributions to the pension plan relative to the contributions of all participating entities.

Following is information related to the proportionate share and pension expense:

		OPERS
Proportion of the net pension		
liability prior measurement date	0.0	00241100%
Proportion of the net pension		
liability current measurement date	0.0	00209300%
Change in proportionate share	(0.0	0031800)%
Proportion of the net pension		
asset prior measurement date	0.0	00000000%
Proportion of the net pension		
asset current measurement date	0.0	01046800%
Change in proportionate share	0.0	<u>01046800</u> %
Proportionate share of the net		
pension liability	\$	362,534
Proportionate share of the net		
pension asset		40
Pension expense		50,031

At December 31, 2016, the Association reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	PERS
Deferred outflows of resources	_
Differences between expected and actual experience	\$ 276
Net difference between projected and	
actual earnings on pension plan investments	106,626
Association contributions subsequent to the	
measurement date	37,441
Total deferred outflows of resources	\$ 144,343
Deferred inflows of resources	
Differences between expected and actual experience	7,005
Changes in employer's proportionate percentage/	
difference between employer contributions	24,019
Total deferred inflows of resources	\$ 31,024

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

\$37,441 reported as deferred outflows of resources related to pension resulting from Association contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability/asset in the year ending December 31, 2017.

Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

	OPERS					
Year Ending December 31:						
2017	\$	11,531				
2018		14,577				
2019		25,468				
2020		24,166				
2021		36				
Thereafter		101				
Total	\$	75,879				

Actuarial Assumptions - OPERS

Actuarial valuations of an ongoing plan involve estimates of the values of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and cost trends. Actuarially determined amounts are subject to continual review or modification as actual results are compared with past expectations and new estimates are made about the future.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employers and plan members) and include the types of benefits provided at the time of each valuation. The total pension liability/asset in the December 31, 2015, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Wage inflation

3.75 percent

Future salary increases, including inflation

COLA or ad hoc COLA

Pre 1/7/2013 retirees: 3 percent, simple

Post 1/7/2013 retirees: 3 percent, simple

through 2018, then 2.80% simple

8 percent

Investment rate of return 8 percent
Actuarial cost method Individual entry age

Mortality rates were based on the RP-2000 Mortality Table projected 20 years using Projection Scale AA. For males, 105 percent of the combined healthy male mortality rates were used. For females, 100 percent of the combined healthy female mortality rates were used. The mortality rates used in evaluating disability allowances were based on the RP-2000 mortality table with no

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

projections. For males 120 percent of the disabled female mortality rates were used set forward two years. For females, 100 percent of the disabled female mortality rates were used.

The most recent experience study was completed for the five year period ended December 31, 2010.

The long-term rate of return on defined benefit investment assets was determined using a building-block method in which best-estimate ranges of expected future real rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected real rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adjusted for inflation.

OPERS manages investments in four investment portfolios: the Defined Benefits portfolio, the Health Care portfolio, the 401 (h) Health Care Trust portfolio, the 115 Health Care Trust portfolio and the Defined Contribution portfolio. The Defined Benefit portfolio includes the investment assets of the Traditional Pension Plan, the defined benefit component of the Combined Plan, the annuitized accounts of the Member-Directed Plan and the VEBA Trust. Within the Defined Benefit portfolio, contributions into the plans are all recorded at the same time, and benefit payments all occur on the first of the month. Accordingly, the money-weighted rate of return is considered to be the same for all plans within the portfolio. The money weighted rate of return, net of investments expense, for the Defined Benefit portfolio is 0.40 percent for 2015.

The allocation of investment assets with the Defined Benefit portfolio is approved by the OPERS Board of Trustees as outlined in the annual investment plan. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the defined benefit pension plans. The table below displays the Board-approved asset allocation policy for 2015 and the long-term expected real rates of return:

1 7	S	Weighted Average Long-Term Expected
Asset Class	Target Allocation	Real Rate of Return (Arithmetic)
Fixed income	23.00 %	2.31 %
Domestic equities	20.70	5.84
Real estate	10.00	4.25
Private equity	10.00	9.25
International equities	18.30	7.40
Other investments	18.00	4.59
Total	100.00 %	5.27 %

Discount Rate - The discount rate used to measure the total pension liability/asset was 8 percent for both the Traditional Pension Plan, the Combined Plan and Member-Directed Plan. The projection of cash flows used to determine the discount rate assumed that contributions from plan members and those of the contributing employers are made at the contractually required rates, as actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefits payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments for the Traditional

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

Pension Plan, Combined Plan and Member-Directed Plan was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Association's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate - The following table presents the Association's proportionate share of the net pension liability/asset calculated using the current period discount rate assumption of 8 percent, as well as what the Association's proportionate share of the net pension liability/asset would be if it were calculated using a discount rate that is one-percentage-point lower (7 percent) or one-percentage-point higher (9 percent) than the current rate:

				Current	
	1%	Decrease	Dis	scount Rate	1% Increase
	((7.00%)	((8.00%)	(9.00%)
Association's proportionate share					
of the net pension liability (asse	t):				
Traditional Pension Plan	\$	577,605	\$	362,534	\$ 181,128
Member-Directed Plan		105		(40)	(105)

Changes Between Measurement Date and Report Date – In October 2016, the OPERS Board of Trustees adopted certain assumption changes which impacted their annual actuarial valuation prepared as of December 31, 2016. The most significant changes are a reduction in the expected return to 7.50% from 8.00%, the expected long-term average wage inflation was reduced to 3.25% from 3.75%, the expected long-term average price inflation was reduced to 2.50% from 3.00% and a change to various demographic assumptions. Although the exact amount of these changes is not known, the impact to the Association's net pension liability is expected to be significant.

NOTE 9 - POSTEMPLOYMENT BENEFITS

Ohio Public Employees Retirement System

Plan Description - OPERS maintains a cost-sharing multiple employer defined benefit post-employment healthcare plan, which includes a medical plan, prescription drug program and Medicare Part B premium reimbursement, to qualifying members of both the Traditional Pension Plan and the Combined Plan. Members of the Member-Directed Plan do not qualify for ancillary benefits, including post-employment health care coverage.

To qualify for post-employment health care coverage, age-and-service retirees under the Traditional Pension and Combined Plans must have ten years or more of qualifying Ohio service credit. The Ohio Revised Code permits, but does not mandate, OPERS to provide OPEB benefits to its eligible members and beneficiaries. Authority to establish and amend benefits is provided in Chapter 145 of the Ohio Revised Code.

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

Disclosures for the healthcare plan are presented separately in the OPERS financial report which may be obtained by visiting https://www.opers.org/financial/reports.shtml, writing to OPERS, 277 East Town Street, Columbus, OH 43215-4642 or by calling (800) 222-7377.

Funding Policy - The post-employment healthcare plan was established under, and is administered in accordance with, Internal Revenue Code Section 401(h). State statute requires that public employers fund post-employment healthcare through contributions to OPERS. A portion of each employer's contribution to the Traditional or Combined Plans is set aside for the funding of post-employment health care.

Employer contribution rates are expressed as a percentage of the covered payroll of active employees. In 2016, local government employers contributed 14.00% of covered payroll. Each year the OPERS' Retirement Board determines the portion of the employer contribution rate that will be set aside for the funding of the postemployment health care benefits. The portion of employer contributions allocated to fund post-employment healthcare for members in the Traditional Plan and Combined Plan for 2016 was 2.00%.

The OPERS Retirement Board is also authorized to establish rules for the payment of a portion of the health care benefits provided, by the retiree or their surviving beneficiaries. Payment amounts vary depending on the number of covered dependents and the coverage selected. Active members do not make contributions to the post-employment healthcare plan.

The Association's contributions allocated to fund post-employment health care benefits for the years ended December 31, 2016, 2015, and 2014 were \$7,913, \$6,157, and \$6,116, respectively; 96.12% has been contributed for 2016 and 100% has been contributed for 2015 and 2014. The remaining 2016 post-employment health care benefits liability has been reported as *accounts* payable and accrued liabilities on the basic financial statements.

Changes to the health care plan were adopted by the OPERS Board of Trustees on September 19, 2012, with a transition plan commencing January 1, 2014. With the recent passage of pension legislation under State Bill 343 and the approved health care changes, OPERS expects to be able to consistently allocate 4.00% of the employer contributions toward the health care fund after the end of the transition period.

NOTE 10 – COMMITMENTS

Leases - The Association leases office space under a lease which was renewed for five years effective July 1, 2014. Rental expense for the lease was \$36,400 in 2016. Future minimum annual lease payments are \$36,400 through June 30, 2019. An option to purchase the building was also included in the agreement. MVRMA may purchase the building for \$320,000 at any time during the lease term.

NOTES TO THE BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

NOTE 11 – LITIGATION AND CLAIMS

The Association is party to various legal proceedings, which normally occur in the course of claims processing operations. Management believes that the outcome of such claims has been adequately accrued in the claims reserve liability, and excess will be covered by insurance carriers that provide excess insurance and reinsurance contracts. Nevertheless, due to uncertainties in the settlement process, it is at least reasonably possible that management's view of the outcome could change materially in the near term.

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Rì	EQUIRED SUPPLEMENTARY INFORMATION

MIAMI VALLEY RISK MANAGEMENT ASSOCIATION, INC. REQUIRED SUPPLEMENTARY INFORMATION

COMPARATIVE SCHEDULE OF CLAIM DEVELOPMENT, EARNED ASSESSMENTS AND UNALLOCATED EXPENSES FOR THE YEARS ENDED DECEMBER 31, 2016, 2015, 2014, 2013, 2012, 2011, 2010, 2009, 2008 AND 2007

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Earned assessments and interest income: Earned Ceded	\$4,243,039 864,407	\$4,223,535 885,468	\$4,908,192 878,317	\$4,316,800 870,249	\$4,433,255 807,647	\$4,388,732 761,789	\$4,259,382 753,793	\$4,642,131 695,576	\$4,947,808 739,537	\$5,163,206 832,277
Net	\$3,378,632	\$3,338,067	\$4,029,875	\$3,446,551	\$3,625,608	\$3,626,943	\$3,505,589	\$3,946,555	\$4,208,271	\$4,330,929
Unallocated loss expenses Original estimates ultimate incurred claims and expenses for the policy year, including	\$826,140	\$758,871	\$757,719	\$751,099	\$733,355	\$691,571	\$677,469	\$668,721	\$653,618	\$658,624
members' deductibles (1)	\$1,413,000	\$1,459,000	\$2,771,000	\$1,798,849	\$2,032,756	\$2,587,500	\$1,997,755	\$2,409,147	\$2,934,106	\$2,400,000
Cummulative paid claims, net of reinsurance, including members' deductibles, as of:										
End of policy year One year later Two years later Three years later Four years later Five years later Six years later Seven years later Eight years later Nine years later	\$577,160	\$626,239 947,321	\$1,480,995 1,626,822 3,431,215	\$729,736 952,440 1,180,592 1,421,688	\$664,220 810,718 889,541 964,041 1,003,672	\$2,908,228 2,657,347 2,422,620 2,422,096 2,474,416 2,518,318	\$519,228 689,893 1,141,553 1,391,993 1,481,047 1,587,679 1,587,679	\$432,941 581,765 857,095 1,159,198 1,605,343 1,560,680 1,533,450 1,533,450	\$1,079,122 1,070,393 1,709,126 1,761,917 1,778,973 1,768,118 1,768,118 1,768,118	\$414,230 733,273 937,377 1,001,350 1,005,084 993,837 993,837 993,837 993,837 993,837
Re-estimated ultimate incurred claims and expenses, including members' deductibles: End of policy year One year later Two years later Three years later Four years later Five years later Six years later Seven years later Eight years later Nine years later	\$1,413,000	\$1,459,000 1,502,478	\$2,771,000 2,334,000 2,637,033	\$1,798,849 1,621,700 1,431,006 1,547,491	\$2,032,756 1,587,710 1,167,878 1,137,378 1,067,378	\$2,587,500 2,136,224 1,326,059 1,339,671 1,312,671 1,318,671	\$1,997,755 1,742,370 1,394,990 1,544,150 1,554,895 1,523,508 1,523,508	\$2,409,147 1,764,438 1,221,597 1,288,589 1,724,400 1,634,638 1,533,450 1,533,450	\$2,934,106 2,166,259 1,967,931 1,948,570 1,766,766 1,698,056 1,647,761 1,647,761	\$2,400,000 2,198,000 1,152,076 1,075,548 1,068,624 1,011,355 1,006,467 993,837 993,837 993,837
Increase (decrease) in estimate incurred claims and expenses from original estimate		\$43,478	(\$133,967)	(\$251,358)	(\$965,378)	(\$1,268,829)	(\$474,247)	(\$875,697)	(\$1,286,345)	(\$1,406,163)

⁽¹⁾ Ceded losses are not expected to be significant.

Reconcililation of Claim Liabilities by Type of Contract For the Year Ended December 31, 2016

	General Liability	Automobile Liability	Property	Total
Unpaid claims and claim adjustment expenses - Beginning of				
Year - including Aggregate Adjustment	\$2,323,494	\$147,240	\$227,447	\$2,698,181
Incurred claims and claim adjustment expenses:				
Provision for insured events of the current year	797,069	90,699	317,570	\$1,205,338
Change in provision for insured events of prior years	374,917	-102,589	161,184	433,512
Total incurred claims and claim adjustment expenses	1,171,986	-11,890	478,754	1,638,850
Payments:				
Claims and claim adjustment expenses attributable to insured				
events of the current year	51,184	11,862	217,538	\$280,584
Claims and claim adjustment expenses attributable to insured				
events of prior years	546,197	39,883	357,059	943,139
Total Payments	597,381	51,745	574,597	1,223,723
Unpaid claims and claim adjustment expenses - End of Year	\$2,898,099	\$83,605	\$131,604	\$3,113,308

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF THE ASSOCIATION'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY/NET PENSION ASSET OHIO PUBLIC EMPLOYEES RETIREMENT SYSTEM (OPERS)

LAST THREE YEARS

		2016		2015		2014		
Traditional Plan:	,			_				
Association's proportion of the net pension liability	0.002093%			0.002411%	0.002411%			
Association's proportionate share of the net pension liability	\$	362,534	\$	289,865	\$	283,973		
Association's covered-employee payroll	\$	285,853	\$	301,763	\$	337,396		
Association's proportionate share of the net pension liability as a percentage of its covered-employee payroll		126.83%		96.06%		84.17%		
Plan fiduciary net position as a percentage of the total pension liability		81.08%		86.45%		86.36%		
Member Directed Plan:								
Association's proportion of the net pension asset		0.010468%		n/a		n/a		
Association's proportionate share of the net pension asset	\$	40		n/a		n/a		
Association's covered-employee payroll	\$	58,300		n/a		n/a		
Association's proportionate share of the net pension asset as a percentage of its covered-employee payroll		0.07%		n/a		n/a		
Plan fiduciary net position as a percentage of the total pension asset		103.91%		n/a		n/a		

Note: Information prior to 2014 was unavailable. Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Amounts presented for each year were determined as of the Association's measurement date which is the prior year-end.

SEE ACCOMPANYING NOTES TO THE REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF ASSOCIATION CONTRIBUTIONS OHIO PUBLIC EMPLOYEES RETIREMENT SYSTEM (OPERS)

LAST TEN YEARS

	 2016	 2015	2014		2013		2012		2011		2010		2009		2008		2007	
Traditional Plan:																		
Contractually required contribution	\$ 31,989	\$ 34,302	\$	36,212	\$	43,861	\$	31,306	\$	28,316	\$	29,018	\$	21,892	\$	24,839	\$	20,804
Contributions in relation to the contractually required contribution	 (31,989)	 (34,302)		(36,212)		(43,861)		(31,306)		(28,316)		(29,018)		(21,892)		(24,839)		(20,804)
Contribution deficiency (excess)	\$ 	\$ 	\$	-	\$		\$		\$	<u>-</u>	\$		\$	-	\$	_	\$	_
Association's covered-employee payroll	\$ 266,575	\$ 285,853	\$	301,763	\$	337,396	\$	313,064	\$	283,158	\$	325,313	\$	269,276	\$	354,840	\$	249,156
Contributions as a percentage of covered-employee payroll	12.00%	12.00%		12.00%		13.00%		10.00%		10.00%		8.92%		8.13%		7.00%		8.35%
Member Directed Plan:																		
Contractually required contribution	\$ 5,452	\$ 6,996																
Contributions in relation to the contractually required contribution	 (5,452)	(6,996)																
Contribution deficiency (excess)	\$ 	\$ 																
Association's covered-employee payroll	\$ 57,389	\$ 73,642																
Contributions as a percentage of covered-employee payroll	9.50%	9.50%																

Note: Information prior to 2015 unavilable for the Member Directed Plan.

SEE ACCOMPANYING NOTES TO THE REQUIRED SUPPLEMENTARY INFORMATION

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION FOR THE YEAR ENDED DECEMBER 31, 2016

OHIO PUBLIC EMPLOYEES RETIREMENT SYSTEM (OPERS)

Changes in benefit terms: There were no changes in benefit terms from the amounts reported for 2014-2016.

Changes in assumptions: There were no changes in methods and assumptions used in the calculation of actuarial determined contributions for 2014-2016. See the notes to the basic financial statements for the methods and assumptions in this calculation.





ANALYSIS OF UNPAID LOSS AND LAE AS OF DECEMBER 31, 2016

MARCH 23, 2017



One Glenlake Parkway, Suite 1285 Atlanta, GA 30328 770.587.0351 pinnacleactuaries.com





One Glenlake Parkway, Suite 1285 Atlanta, GA 30328 770.587.0351 pinnacleactuaries.com

> Timothy C. Mosler, FCAS, MAAA Senior Consulting Actuary tmosler@pinnacleactuaries.com

March 23, 2017

Mr. Tom Judy Executive Director Miami Valley Risk Management Association 4625 Presidential Way Kettering, OH 45429-5706

Re: Analysis of Unpaid Loss and LAE as of December 31, 2016

Dear Mr. Judy:

Attached is Pinnacle Actuarial Resources, Inc.'s (Pinnacle's) draft report on the unpaid loss and loss adjustment expense (LAE) amounts of Miami Valley Risk Management Association (MVRMA) as of December 31, 2016.

This draft report is intended for discussion purposes only, and should not be relied upon by MVRMA or referenced or distributed to third parties without Pinnacle's express written consent. We look forward to the opportunity to discuss our analysis and findings with you and will issue a final report shortly thereafter, which will replace this draft.

Attention is called to the section of the report entitled *Distribution*, which sets out the limits on distribution of the report.

We have prepared this report so that MVRMA may comply with requirements of the state of Ohio concerning the need for a written actuarial report. A copy of this report should be retained in MVRMA's offices for a seven-year period in support of the loss reserves that will be contained in the 2016 financial statement. The report should be made available for insurance regulatory examination, upon request.

This report contains workpapers, trade secrets, and confidential information of both MVRMA and Pinnacle, and as such, it is not intended to be subject to disclosure requirements under any Freedom of Information Act or similar laws.

The authors of this report are members of the American Academy of Actuaries and meet its qualification standards to render the actuarial opinion contained herein.

We have enjoyed working with you in the preparation of this report. Please let us know if you have any questions.

Very truly yours,

Timothy C. Mosler, FCAS, MAAA

Senior Consulting Actuary Direct Dial: 678.894.7254

Timothy C. mosler

Christopher M. Holt, ACAS, MAAA

Christophe M. Golf

Consulting Actuary

Direct Dial: 678.894.7265

TABLE OF CONTENTS

PURPOSE AND SCOPE	1
DISTRIBUTION	3
BACKGROUND	4
Data	4
Self-Insured Retention History	5
Excess Insurance	
FINDINGS	7
Unpaid Loss and LAE as of December 31, 2016	7
Development in Net Loss Estimates from Prior Analysis	7
ANALYSIS	
Development Patterns	8
Initial Expected Loss Costs	8
Selected Ultimate Losses	8
Unallocated Loss Expense Reserve	8
General Overview of Exhibits	8
RELIANCES AND LIMITATIONS	
Inherent Uncertainty	10
Sensitivity Analysis	10
Data Reliance	
Extraordinary Future Emergence	10
Projections by Accident Year	11
Excess Insurance Collectability	11
Underlying Assets	11
DESCRIPTION OF PROJECTION METHODS	
Incurred Development Method	12
Paid Development Method	12
Case Reserve Development Method	12
Expected Loss Method	12
Incurred Bornhuetter-Ferguson Method	
Paid Bornhuetter-Ferguson Method	13
Counts and Averages Method	
FYHIRITS	1

PURPOSE AND SCOPE

Pinnacle Actuarial Resources, Inc. (Pinnacle) was retained by Miami Valley Risk Management Association (MVRMA) to prepare an actuarial analysis of MVRMA's loss and loss adjustment expense (LAE) experience for the purpose of developing estimates of unpaid loss and LAE as of December 31, 2016.

This report was prepared for the internal use of MVRMA management to present our findings with respect to this analysis. It is our understanding that MVRMA management will consider our findings for the purposes of establishing liability estimates for external financial reporting and internal management reporting.

Our report is not intended or necessarily suitable for any other purpose.

In this report, we develop an actuarial central estimate of MVRMA's unpaid loss and LAE as of December 31, 2016. This actuarial central estimate is intended to represent an expected value over a range of reasonably foreseeable outcomes. The actuarial central estimate was arrived at through evaluation of the results of various actuarial methods and models applied to MVRMA's experience. As such, the derivation of this estimate does not reflect extreme events believed to have a remote possibility of occurring. We consider the actuarial central estimate suitable for use in financial reporting contexts.

The exhibits attached in support of our conclusions are an integral part of this report. This section has been prepared so that our actuarial assumptions and judgments are documented. Judgments about the analysis and findings presented in this report should be made only after considering the report in its entirety. Our projections are predicated on a number of assumptions as to future conditions and events. These assumptions are documented in subsequent sections of this report, and should be understood in order to place the actuarial estimates in their appropriate context. In addition, these projections are subject to a number of reliances and limitations, as described in subsequent sections of this report.

We are available to answer any questions that may arise regarding this report. We assume that the user of this report will seek such explanation on any matter in question.

The scope does not include quantification of the uncertainty in our estimates. However, our report includes commentary on this uncertainty to assist in understanding the financial implications of our results.

For the purposes of our report, the "accounting date" of December 31, 2016 is the date used to separate paid and unpaid claim amounts in MVRMA's financial statement. Transactions through the "valuation date" of December 31, 2016 are included in the data used in our analysis. No account has been taken in the projections of developments subsequent to the "review date" of March 6, 2017.

Paid losses provided to us are net of salvage and subrogation. Therefore loss reserve estimates derived from this data would implicitly anticipate salvage and subrogation. The other recoverables considered in our reserve estimates are individual member liabilities and excess insurance.

All loss and LAE amounts are stated on an undiscounted basis as regards future investment income.

Throughout this report, the use of the term *loss* without modification includes loss and allocated loss adjustment expenses (ALAE), but does not include unallocated loss adjustment expenses (ULAE).

This actuarial report is being provided to MVRMA to be retained for a period of seven years in its administrative offices and to be available for examination by its members and for regulatory examination, if appropriate.

Loss adjustment expenses include but are not limited to the costs of administering, determining coverage for, settling, or defending claims even if it is ultimately determined that the claim is invalid.

Funding for MVRMA's loss and LAE is accomplished via annually budgeted contributions. In the event the pool requires additional funds, such amounts can be obtained via a call for special assessments by MVRMA's Board of Trustees for supplementary payments.

DISTRIBUTION

Our report is delivered under the following terms and conditions:

- This report is provided to MVRMA solely for the intended purpose, and may not be referenced or distributed to any other party without our prior written consent
- This report has been prepared for use by persons technically competent in the areas covered and with the necessary background information
- Draft versions of this report must not be relied upon by any person for any purpose
- This report is available for regulatory examination
- A copy of this report may be shared with MVRMA's independent auditors solely in the context of their performing regular audit activities

We accept no responsibility for any consequences arising from any third party relying on this report. If we agree to provide this report to a third party, you are responsible for ensuring that the report is provided in its entirety, that the third party is made aware of the fact that they are not entitled to rely upon it, and that they may not distribute the report to any other party.

This report contains workpapers, trade secrets, and confidential information of both MVRMA and Pinnacle. Because of the nature of the material contained in the report, it is not intended to be subject to disclosure requirements under any Freedom of Information Act or similar laws.

BACKGROUND

MVRMA has provided insurance coverage for its members since December 1, 1988. As of December 31, 2016 the pool was comprised of the following 20 entities: Beavercreek, Bellbrook, Blue Ash, Centerville, Englewood, Kettering, Madeira, Mason, Miamisburg, Montgomery, Piqua, Sidney, Springdale, Tipp City, Troy, Vandalia, the Village of Indian Hill, West Carrollton, Wilmington and Wyoming. MVRMA provides coverage for several lines of insurance including commercial property, comprehensive general liability, automobile liability, automobile physical damage, law enforcement liability, public official's liability, crime, ambulance attendants, and boiler and machinery.

This report groups all losses into three categories: automobile liability (AL), general liability (GL), and property which includes auto physical damage (Property). Each line is analyzed for annual periods December 1, 1988 through December 31, 2016. The results of the report are not intended to apply to any other entities, lines of insurance, or periods.

Prior to December 31, 1994, claim adjustment services were provided to MVRMA through Gallagher Bassett Insurance Services, Incorporated. Gallagher Bassett continued to adjust run-off claims for the period December 1, 1988 through December 31, 1994. As of December 31, 2008, there were no outstanding claims from this claim period. Effective January 1, 1995, MVRMA began to employ an inhouse claims staff.

Data

We were provided with "gross" paid and incurred loss and ALAE by accident period, by line of business. The term "gross" means before consideration of recoverables from excess carriers and member deductibles. Paid losses are net of salvage and subrogation.

Detailed claims data was provided to us by MVRMA's claims department for accident periods 2007 through 2016. MVRMA also provided such summaries by line of business for accident periods 2007 through 2016. There has been no claim activity for any prior accident periods. Excess insurance limits were provided by MVRMA.

In my review, we have relied on listings and other relevant data, prepared by Tom Judy, Executive Director of MVRMA and Craig Blair, Claims Manager of MVRMA. we evaluated that data for reasonableness and consistency. We are relying on the audit procedures of MVRMA's independent public accountant and claims auditor to verify the accuracy of the data underlying our analysis. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

Self-Insured Retention History

The following table details the MVRMA self-insured retention (SIR) per occurrence for casualty and property coverages separately by accident year.

Accident Year	Casualty - SIR	Property - SIR
1993 & Prior	\$250,000	\$250,000
1994	\$250,000	\$100,000
1995	\$250,000	\$150,000
1996	\$250,000	\$250,000
1997-1998	\$500,000	\$250,000
1999-2001	\$500,000	\$150,000
2002	\$500,000	\$250,000
2003-2004	\$1,000,000	\$250,000
2005-2008	\$1,000,000	\$200,000
2009	\$1,000,000	\$200,000/\$250,000
2010-2016	\$500,000	\$250,000

The first \$2,500 of each occurrence is treated as a deductible by the pool member who suffered the loss. MVRMA did not have an aggregate stop loss policy for periods prior to December 31, 1990; however, there is an \$850,000 aggregate "property and casualty combined" stop loss in place for the accident periods 1991 through 1993 and a \$950,000 aggregate "casualty only" stop loss for the 1994 and 1995 accident periods. There is no aggregate stop loss policy for accident periods 1996 and subsequent; rather MVRMA is aggregating premiums previously paid for such coverage into an accumulating "shock loss" fund to be used at the discretion of the MVRMA Board.

Excess Insurance

The following table is a synopsis of the historical excess liability coverage carried by MVRMA:

Accident Year	Liability Excess Coverage	Provider
1997-2002	\$10M excess of \$1M	National Public Entity Excess Program (NPX)
2003	\$11M excess of \$1M	Government Entities Mutual, Inc. (GEM)/ Endurance Specialty Insurance Limited
2004	\$1M excess of \$1M \$5M excess of \$2M	GEM Insurance Co. of the State of PA (AIG)
2005	\$1M excess of \$1M \$5M excess of \$2M	GEM Illinois Union Insurance Company (ACE)
2006-2008	\$1M excess of \$1M	GEM

	\$8M excess of \$2M	Munich Reinsurance America
2009	\$1M excess of \$1M	GEM
	\$8M excess of \$2M	General Reinsurance
		Corporation
2010-2012	\$1.5M excess of \$500K	GEM
	\$8M excess of \$2M	General Reinsurance
		Corporation
2013-2015	\$2.5M excess of \$500K	GEM
	\$7M excess of \$3M	Genesis
2016	\$4.5M excess of \$500K	GEM
	\$7M excess of \$5M	Genesis

GEM is a protected cell reinsurance captive domiciled in the District of Columbia. GEM is sponsored by the National Association of Government Entity Programs, Inc. (NAGeP), a non-profit association incorporated in the District of Columbia.

FINDINGS

Based on our analysis of MVRMA's experience as of December 31, 2016, and subject to the considerations set forth in the *Reliances and Limitations* section, we have reached the conclusions set forth below.

Unpaid Loss and LAE as of December 31, 2016

The estimated total undiscounted unpaid loss and LAE as of December 31, 2016 is \$3,113,308. This amount is net of reinsurance and member deductibles. It compares to an estimated unpaid amount of \$2,698,181 from our analysis at December 31, 2015.

Development in Net Loss Estimates from Prior Analysis

The table below compares our net ultimate loss estimate as of December 31, 2016 to our estimate as of December 31, 2015 for accident years 2015 and prior. Our estimates have increased by \$0.4 million.

MIAMI VALLEY RISK MANAGEMENT ASSOCIATION Comparison of Net Ultimate Loss to Prior Ultimate Loss (in \$000s) Prior to Consideration of Member's Deductibles

Accident	Evaluati	on Date		Percent
Year	@12/31/2015	@12/31/2016	Difference	Change
1989-2005	\$13,932	\$13,932	0	0.0%
2006	1,558	1,558	0	0.0%
2007	994	994	0	0.0%
2008	1,648	1,648	0	0.0%
2009	1,533	1,533	0	0.0%
2010	1,524	1,524	0	0.0%
2011	1,313	1,319	6	0.5%
2012	1,137	1,067	(70)	-6.2%
2013	1,431	1,547	116	8.1%
2014	2,334	2,637	303	13.0%
2015	1,459	1,502	43	3.0%
Total	\$28,863	\$29,262	\$399	1.4%

ANALYSIS

Our analysis consisted of the steps outlined below.

Development Patterns

Our projection of future claim reporting and payment is based on MVRMA's historical experience. Using historical loss development experience provided by MVRMA, we select report-to-report (RTR) development factors. In cases for which MVRMA's historical data is not sufficiently credible, stable, or mature, we have supplemented MVRMA's experience with benchmark reporting and payment patterns.

Benchmark patterns are constructed internally by Pinnacle, drawing upon available relevant sources of loss development data. Benchmarks are revised periodically as new information and trends emerge. While each company's own development can be expected to vary from the benchmark based on individual circumstances, we believe the benchmark is an appropriate supplement to the analysis of MVRMA's data, as it represents our current judgment as to the typical emergence of loss that can be expected for that class of business.

The selected development patterns are used for both the development and Bornhuetter-Ferguson (B-F) projection methods.

Initial Expected Loss Costs

The selected initial expected loss costs (IELCs or loss per exposure) are based on a review of the paid and incurred loss development methods, the results of prior analyses, insurance industry indications, and observed trends. These IELCs form the basis of the B-F and expected loss projection methods.

Selected Ultimate Losses

In general, our selected ultimate losses are based on the results of various projection methods. Our selections are based on judgment reflecting the range of estimates produced by the methods, and the strengths and weaknesses of each method. These methods are described in the *Description of Projection Methods* section of this report.

Unallocated Loss Expense Reserve

We relied on only one method to develop estimates of indicated unpaid ULAE. We recognize there are other methods used by actuaries for estimating unpaid LAE that rely on projecting future claim counts and assigning a transaction cost to handle such claims. Regardless, the method we rely upon has been in common practice for many years and is widely accepted.

On Summary, Exhibit 4, the industry paid ULAE to paid loss ratio is applied to the estimated IBNR amounts and one-half of this ratio is applied to case reserves. This method is derived from the expectation that half of ULAE is incurred when a claim is opened and the other half at closure.

General Overview of Exhibits

The Summary exhibits combine all lines of business and compare the indicated reserves and carried reserves in total. Exhibit 1.4 shows our calculation of the indicated ULAE reserve. Exhibit 1.3 summarizes

member deductible losses by AY, while Exhibit 1.2 summarizes ultimate losses by AY prior to the application of any member deductibles. Note that the aggregate retention is applied to the appropriate AY's and affects AY 1993. Exhibit 1.1 summarizes the indicated reserves from Exhibit 1.2 before and after application of the member deductibles.

Automobile Liability

Exhibits 1 through 23 contain our loss analysis for AL. The claim summary and ultimate claim projection can be found in Exhibits 19 through 22. Exhibit 21 shows AL's historical reported claim experience and our selected development factors. For the majority of the FYs all claims are reported by 36 months. Exhibit 19 summarizes the claim indications including indicated IBNR claims.

Exhibits 15 and 16 show the incurred and paid loss triangles limited to \$500,000 and our initial selected development factors, respectively. Exhibits 17 and 18 show the average incurred and average paid loss triangles limited to \$500,000 and our initial selected development factors, respectively. On Exhibits 13 and 14, we estimate \$1,000,000 limits development patterns based on the \$500,000 limits development patterns and an assumed 6 month lag.

Exhibits 7 through 12 contain the development method indications using the selected development factors from Exhibits 13 and 14.

Exhibits 6.1 through 6.3 calculates the expected loss cost used in the B-F methods found in Exhibits 4 and 5. First, a limit factor is selected to adjust all AY's to a \$500,000 limit (Exhibit 6.3). Second, an initial ultimate loss is selected based on the development methods (Exhibit 6.2). Next, AY loss costs based on the initial selected ultimate losses are trended to AY 2016 with an initial loss cost selected for AY 2016. Finally, the expected loss cost for all AY's are calculated by detrending the selected AY 2016 loss cost (Exhibit 6.1).

We select ultimate losses at retained limits on Exhibit 3. Exhibit 2 provides a comparison of selected ultimate losses to those selected in our prior analysis. Exhibit 1 summarizes the loss indications including indicated IBNR losses.

The exhibits for GL and Property follow a similar layout as the AL exhibits.

RELIANCES AND LIMITATIONS

Inherent Uncertainty

Projections of loss and LAE liabilities are subject to potentially large errors of estimation, since the ultimate disposition of claims incurred prior to the financial statement date, whether reported or not, is subject to the outcome of events that have not yet occurred. Examples of these events include jury decisions, court interpretations, legislative changes, changes in the medical condition of claimants, public attitudes, and social/economic conditions such as inflation. Any estimate of future costs is subject to the inherent limitation on one's ability to predict the aggregate course of future events. It should therefore be expected that the actual emergence of losses and LAE will vary, perhaps materially, from any estimate. Thus, no assurance can be given that MVRMA's actual loss and LAE liabilities will not ultimately exceed the estimates contained herein. In our judgment, we have employed techniques and assumptions that are appropriate, and the estimates presented herein are reasonable, given the information currently available.

Note that a quantification of this uncertainty would likely reflect a range of reasonable, favorable and adverse scenarios, but not necessarily a range of all possible outcomes. Further, the proper application of any range is dependent on the context. MVRMA's financial reports are governed by accounting standards, and such standards vary among jurisdictions. Under current accounting standards, the ends of a range that is illustrative of uncertainty would likely not be suitable for financial reporting purposes.

Sensitivity Analysis

In performing this analysis, the sensitivity of key variables was considered. A number of assumptions about model variables are made in our analysis. We consider the key variables to include the selection of RTR factors, initial expected loss costs and loss cost trend factors. The overall results are potentially sensitive to any of these, and reasonable alternative selections could change the results significantly (favorably or adversely).

Data Reliance

Throughout this analysis, we have relied on historical data and other quantitative and qualitative information supplied by MVRMA. We have not independently audited or verified this information; however, we have reviewed it for reasonableness and internal consistency. We have assumed that the information is complete and accurate, and that we have been provided with all information relevant to the analysis of MVRMA's ultimate losses and LAE. The accuracy of our results is dependent upon the accuracy and completeness of the underlying data; therefore, any material discrepancies discovered in this data should be reported to us and this report amended accordingly, if warranted.

MVRMA has indicated that it will require that their independent certified public accountant subject the data significant to our loss and LAE projections to testing procedures.

Extraordinary Future Emergence

We have not anticipated any extraordinary changes to the legal, social, or economic environment that might affect the cost, frequency, or future reporting of claims. In addition, our estimates make no provision for potential future claims arising from loss causes not represented in the historical data (e.g.,

new types of mass torts or latent injuries, terrorist acts, etc.), except where claims of these types are included but not identified in the reported claims and are implicitly analyzed.

Projections by Accident Year

Consistent with the purpose of our engagement, the focus of our analysis was on MVRMA's overall reserves for unpaid claims. As such, projections shown in this report for each accident year should be viewed in the context of the entire portfolio of liabilities, not necessarily as best estimates for individual accident years.

Excess Insurance Collectability

Our estimates are presented net of excess insurance. Based solely on inquiries made of MVRMA management, we understand that none of MVRMA's excess insurance is considered uncollectible. An independent evaluation of the quality of security provided by MVRMA's excess insurers is outside the scope of our engagement. We have assumed that all of MVRMA's excess insurance protection will be valid and collectible. Contingent liability may exist for any excess insurance recoveries that may prove to be uncollectible. Should such liabilities materialize, they would be in addition to the net liability estimates contained herein.

Underlying Assets

We have not examined the assets underlying MVRMA's loss and LAE reserves, and we have formed no opinion as to the validity or value of these assets. We have assumed throughout the analysis that MVRMA's loss and LAE reserves are backed by valid assets with suitably scheduled maturities and/or adequate liquidity to meet cash flow requirements.

DESCRIPTION OF PROJECTION METHODS

The choice of method to estimate ultimate losses should consider, among other things, the line of business, the number of years of experience, and the age of the experience year being developed. In general, these methods can be applied to losses, ALAE, and various measures of claim counts.

Incurred Development Method

The incurred development method is based upon the assumption that the relative change in a given year's incurred loss estimates from one evaluation point to the next is similar to the relative change in prior years' incurred loss estimates at similar evaluation points. In utilizing this method, actual annual historical incurred loss data is evaluated. Successive years can be arranged to form a triangle of data.

RTR development factors are calculated to measure the change in cumulative incurred costs from one evaluation point to the next. These historical RTR factors and comparable benchmark factors form the basis for selecting the RTR factors used in projecting the current valuation of losses to an ultimate basis.

This method's implicit assumption is that the relative adequacy of case reserves has been consistent over time, and that there have been no material changes in the rate at which claims have been reported.

Paid Development Method

The paid development method is similar to the incurred development method; however, case reserves are excluded from the analysis. While this method has the disadvantage of not recognizing the information provided by current case reserves, it has the advantage of avoiding potential distortions in the data due to changes in case reserving methodology.

This method's implicit assumption is that the rate of payment of claims has been relatively consistent over time.

Case Reserve Development Method

The case reserve development technique derives case reserve development factors through an analysis of the historical development of case reserves by period. The changes measured by the case reserve development technique include payments associated with the historical case reserves and subsequent reserve amounts for those claims remaining open.

The case reserve development factors are applied to the current case reserves by period to estimate their ultimate settlement value. Payments to date are then added to determine the ultimate losses for each period.

Expected Loss Method

In the expected loss method, ultimate loss projections are based upon a prior measure of the anticipated losses, such as number of cars, expenditures, etc. An expected loss cost is applied to the measure of exposure to determine estimated ultimate losses for each year.

Actual losses are not considered in this calculation. This method has the advantage of stability over time because the ultimate loss estimates do not change unless the expected loss costs change. However, this advantage of stability is offset by a lack of responsiveness since this method does not consider actual loss experience as it emerges.

This method is entirely dependent on the assumption that the loss cost per unit of exposure is a good indication of ultimate losses.

Incurred Bornhuetter-Ferguson Method

The incurred B-F method is essentially a blend of two other methods. The first method is the loss development method whereby actual incurred losses are multiplied by an expected loss development factor. For slow reporting coverages, the loss development method can lead to erratic and unreliable projections because a relatively small swing in early reportings can result in a large swing in ultimate projections. The second method is the expected loss method whereby the IBNR estimate equals the difference between a predetermined estimate of expected losses and actual incurred losses. This has the advantage of stability, but it does not respond to actual results as they emerge.

The incurred B-F method combines these two methods by setting ultimate losses equal to actual incurred losses plus expected unreported losses. As an experience year matures and expected unreported losses become smaller, the initial expected loss assumption becomes gradually less important.

Two parameters are needed to apply the B-F method: the initial expected loss cost (IELC) and the expected reporting pattern. The IELC is selected as described in the *Analysis* section, while the expected reporting pattern is based on the incurred loss development method described above.

This method is often used for long-tail lines and in situations where the incurred loss experience is relatively immature or lacks sufficient credibility for the application of other methods.

Paid Bornhuetter-Ferguson Method

The paid B-F method is analogous to the incurred B-F method using paid losses and development patterns in place of incurred losses and patterns.

Counts and Averages Method

The counts and averages method calculates ultimate losses by separately projecting ultimate claim counts and ultimate claim severity (cost per claim) for each experience period. Typically, loss development methods are used to project ultimate claims and severity based on historical data. Ultimate losses are calculated as the product of the two items. This method is intended to avoid distortions that may exist with the other methods for the most recent years as the result of changes in case reserve levels, settlement rates, etc. In addition, it may provide insight into the drivers of the loss experience.

EMMINITS

Miami Valley Risk Management Association Summary December 31, 2016

Indicated Reserves

Gross	of N	/lember	Deductible

		
(1)	Selected Ultimate Loss	\$30,674,623
(2)	Application of Aggregate Retention	\$144,133
(3)	Retained Ultimate Loss	\$30,530,490
(4)	Retained Paid Loss	\$27,467,903
(5)	Indicated Loss Reserves	\$3,062,587
	Member Deductible	
(6)	Indicated Ultimate Loss	\$2,364,414
(7)	Paid Loss	\$2,289,468
(8)	Indicated Loss Reserves	\$74,946
	Net of Member Deductible	
(0)	L.P. L. Live Brown	\$2,987,641
(9)	Indicated Loss Reserves	\$2,967,641
(10)	Indicated Unallocated Loss Expense Reserves	\$125,666
(11)	Indicated Loss and Loss Expense Reserves	\$3,113,308
Notes: (1) (2) (3) (4) (5) (6) (7) (8) (9)	From Summary, Exhibit 2, Col (5) = Summary, Exhibit 2, Col (5) - Exhibit 2, Col (7) From Summary, Exhibit 2, Col (7) From Summary, Exhibit 2, Col (11) = (3) - (4) From Summary, Exhibit 3, Col (5) From Summary, Exhibit 3, Col (9) = (6) - (7) = (5) - (9) From Summary, Exhibit 4, Row (11)	

(11) = (9) + (10)

Miami Valley Risk Management Association Summary December 31, 2016

Summary of Estimated Ultimate Retained Loss Prior to Consideration of Member Deductible Retained Limits

			Ultimate Loss	550					Paid Loss		
Accident	Automobile	General	Property		Aggregate	Retained	Automobile	General	Property		Retained
Year	Liability	Liability	Liability	Total	Retention	Losses	Liability	Liability	Liability	Total	Losses
(1)	(2)	(3)	(4)	(2)	(9)	(2)	(8)	(6)	(10)	(11)	(12)
1989	\$111 919	\$207.853	\$124.141	\$443,913		\$443,913	\$111,919	\$207,853	\$124,141	\$443,913	\$443,913
1990	18.683	439,863	32,734	491,280		491,280	18,683	439,863	32,734	491,280	491,280
1991	13,946	84,015	75,626	173,587	850,000	173,587	13,946	84,015	75,626	173,587	173,587
1992	39,293	139,376	63,858	242,527	850,000	242,527	39,293	139,376	63,858	242,527	242,527
1993	329,494	626,009	63,660	994,133	850,000	850,000	329,494	600'929	63,660	994,133	850,000
1994	126,181	106,065	96,833	329,079	950,000	329,079	126,181	106,065	96,833	329,079	329,079
1995	157,537	156,790	85,639	399,966	950,000	396,966	157,537	156,790	85,639	396'668	396,668
1996	75,097	357,926	92,901	525,924		525,924	75,097	357,926	92,901	525,924	525,924
1997	572,332	706,526	225,205	1,504,063		1,504,063	572,332	706,526	225,205	1,504,063	1,504,063
1998	289'86	554,289	135,150	788,126		788,126	68,687	554,289	135,150	788,126	788,126
1999	203,725	657,094	392,466	1,253,285		1,253,285	203,725	657,094	392,466	1,253,285	1,253,285
2000	81,660	164,560	130,204	376,424		376,424	81,660	164,560	130,204	376,424	376,424
2001	555,168	497,423	505,931	1,558,522		1,558,522	555,168	497,423	505,931	1,558,522	1,558,522
2002	167,747	1,347,177	369,496	1,884,420		1,884,420	167,747	1,347,177	369,496	1,884,420	1,884,420
2003	168,870	269,762	265,463	704,095		704,095	168,870	269,762	265,463	704,095	704,095
2004	49,417	511,964	229,621	791,002		791,002	49,417	511,964	229,621	791,002	791,002
2005	243,966	857,801	369,470	1,471,237		1,471,237	243,966	857,801	369,470	1,471,237	1,471,237
2006	145,431	915,795	497,206	1,558,432		1,558,432	145,431	915,795	497,206	1,558,432	1,558,432
2007	275,826	312,120	405,891	993,837		993,837	275,826	312,120	405,891	993,837	993,837
2008	136,527	856,672	654,562	1,647,761		1,647,761	136,527	856,672	654,562	1,647,761	1,647,761
2009	31,122	1,177,813	324,515	1,533,450		1,533,450	31,122	1,177,813	324,515	1,533,450	1,533,450
2010	161,512	972,613	389,384	1,523,508		1,523,508	161,512	972,613	389,384	1,523,508	1,523,508
2011	87,731	351,000	879,940	1,318,671		1,318,671	87,731	316,697	879,940	1,284,368	1,284,368
2012	38,269	470,000	559,108	1,067,378		1,067,378	38,269	281,284	559,108	878,662	878,662
2013	234,785	730,000	582,706	1,547,491		1,547,491	234,785	536,112	582,706	1,353,604	1,353,604
2014	104,340	1,370,000	1,162,693	2,637,033		2,637,033	104,340	375,369	1,162,693	1,642,403	1,642,403
2015	76,478	760,000	000'999	1,502,478		1,502,478	76,478	129,660	639,435	845,574	845,574
2016	150,000	820,000	443,000	1,413,000		1,413,000	50,913	65,365	302,576	418,854	418,854
Total	\$4,455,744	\$16,395,476	\$9,823,404	\$30,674,623		\$30,530,490	\$4,356,657	\$13,598,964	\$9,656,415	\$27,612,036	\$27,467,903
Notes: (2) (3) (4) (5) (6)	From Auto Liability (From General Liability From Property and A = (2) + (3) + (4) Provided by MVRMA = (5) subject to (6)	From Auto Liability (AB, AD), Exhibit 1, Col (2) From General Liability, Exhibit 1, Col (2) From Property and Auto Physical Damage, EX = (2) + (3) + (4) Provided by MYRMA = (5) subject to (6)	From Auto Liability (AB, AD), Exhibit 1, Col (2) From General Liability, Exhibit 1, Col (2) From Property and Auto Physical Damage, Exhibit 1, Col (2) = (2) + (3) + (4) Provided by MVRMA = (5) subject to (6)		(8)-(10) (11) (12)	Provided by MVRMA = (8) + (9) + (10) = (11) subject to (6)					

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We Pinnacle Actuarial Resources, Inc.

Miami Valley Risk Management Association Summary December 31, 2016

Summary of Estimated Member Deductible Ultimate Loss

	Total	(6)															\$208,766	232,168	252,640	208,732	199,222	237,068	167,402	205,332	240,761	199,108	138,269	\$2,289,468	
SS	Property Liability	(8)															\$103,904	101,827	134,525	119,127	87,270	127,474	92,455	110,192	103,894	91,939	85,038	\$1.157.643	
Paid Loss	General Liability	(7)															\$55,888	54,069	71,826	58,683	68,618	62,033	51,104	54,388	71,735	57,781	14,181	\$625,307	
	Automobile Liability	(9)															\$48,974	76,272	46,288	30,922	43,334	42,561	23,843	40,752	65,132	49,388	39,051	\$506 517	
;	Total	(5)															\$208,766	232,168	252,640	208,732	199,222	237,068	167,402	205,929	242,717	202,108	207,662	¢2 364 414	t = t 't O C ' 7 ÷
OSS	Property Liability	(4)															\$103,904	101,827	134,525	119,127	87,270	127,474	92,455	110,192	103,894	92,439	125,431	¢1 100 E36	71,170,230
Ultimate Loss	General Liability	(3)															\$55.888	54.069	71.826	58,683	68,618	62,033	51,104	54,985	73,691	60,281	22,931	\$630.110	011,650¢
	Automobile Liability	(2)															\$48,974	76,272	46.288	30.922	43,334	42,561	23,843	40.752	65,132	49.388	59,301	-7-7617	/0/'075¢
	Accident Year	(1)	1989	1990	1992	1993	1994	1995	1996	1998	1999	2000	2001	2002	2003	2004	2005	2002	2007	2002	2010	2011	2012	2013	2012	2015	2016	}	l otal

Notes: (2)-(4) Provided by MVRMA (5) = (2) + (3) + (4) (6)-(8) Provided by MVRMA (9) = (6) + (7) + (8)

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ル Pinnacle Actuarial Resources, Inc.

Miami Valley Risk Management Association Summary December 31, 2016

Indicated Unallocated Loss Adjustment Expense Reserves

	Total	(6)													\$0	0	0	0	0	13 2 2 9	23,52	124 501	134,591	422,403	555,658	836,811	\$2,026,480	4.9%	\$125,666	
- 1	Property Liability	(8)													\$0	0	0	0		0 0	0 0	0 0	> (0 0	932	52,399	\$53,332	2.0%	\$5,508	
IBNR	General Liability	(7)													Ç	2	0 0	0 0	0 C	יייייייייייייייייייייייייייייייייייייי	527,61	63,700	134,591	422,485	554,725	724,575	\$1,913,311	4.9%	\$115,391	
	Automobile Liability	(9)													Ç	S C	o C	0 0	0 0	-)	0 '	0	0	0	59,837	\$59,837	%0.9	\$4,768	
	Total	(5)													Ç	Ď, C	o c	0 0	> 0	0 :	21,074	125,010	59,296	572,146	101,247	157,335	\$1,036,107	nse to Loss Ratio	ULAE Reserves	SOURCE OF CHARLES
irves	Property Liability	(4)													Ć.	0¢ °	0 0	>	o (0	0	0	0	0	25,632	88,025	\$113,657	Selected ULAE Expense to Loss Ratio		osses Net of Deductibles Provided by MYRMA = (2) + (3) + (4) From Auto Liability (AB, AD), Exhibit 1, Col (6) From General Liability, Exhibit 1, Col (6) From Property and Auto Physical Damage, Exhibit 1, Col (6) = (6) + (7) + (8) Based on Pinnacle's analysis of industry data
Case Reserves	General	(3)													4	ος, '	0	0 (0	0	21,074	125,010	59,296	572,146	75,615	30,060	\$883,200			Losses Net of Deductibles Provided by MVRMA = (2) + (3) + (4) From Auto Liability (AB, AD), Exhibit 1, Col (6) From General Liability, Exhibit 1, Col (6) From Property and Auto Physical Damage, Exh = (6) + (7) + (8) Based on Pinnacle's analysis of industry data
	Automobile	(2)													;	\$0	0	0	0	0	0	0	0	0	0	39,250	\$39,250	(10)	(11)	Provided by MVRMA = (2) + (3) + (4) From Auto Liability, Exhibit 1, Col (6) From Property and Auto Physical Damage, Exhibit 1, Col (6) = (6) + (7) + (8) Based on Pinnacle's analysis of industry data
	Accident	Year (1)	1989 1990	1991	1992	1993 1994	1995	1996	1997	1999	2000	2001	2002	2003 2004	2005	2006	2007	2008	5009	2010	2011	2012	2013	2014	2015	2016	Total			Notes: (2)-(4) (5) (6) (7) (7) (7) (9) (10)

Miami Valley Risk Management Association Auto Liability (AB, AD) December 31, 2016

Summary of Loss Reserve Estimates Retained Limits

Estimated Total Reserves (7)	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	780'66	\$99,087
Indicated IBNR (6)	0\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59,837	\$59,837
Case Reserves (5)	0\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39,250	\$39,250
Paid Loss (4)	\$111,919	18,683	13,946	39,293	329,494	126,181	157,537	75,097	572,332	28,687	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,527	31,122	161,512	87,731	38,269	234,785	104,340	76,478	50,913	\$4,356,657
Incurred Loss (3)	\$111,919	18,683	13,946	39,293	329,494	126,181	157,537	75,097	572,332	98,687	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,527	31,122	161,512	87,731	38,269	234,785	104,340	76,478	90,163	\$4,395,907
Selected Ultimate Loss (2)	\$111,919	18,683	13,946	39,293	329,494	126,181	157,537	75,097	572,332	98,687	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,527	31,122	161,512	87,731	38,269	234,785	104,340	76,478	150,000	\$4,455,744
Accident Year (1)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total

From Exhibit 3, Col (13)
Provided by MVRMA
= (2) - (3)
= (5) + (6) Notes: (2) (3)-(5) (6) (7)

Comparison of Ultimate Loss to Prior Ultimate Loss Retained Limits

Accident Year	Selected Ultimate Loss @12/31/2015	Selected Ultimate Loss @12/31/2016	Difference	Percent Change
(1)	(2)	(3)	(4)	(5)
	4444 040	ć111 010	\$0	0.0%
1989	\$111,919	\$111,919	٥ ن	0.0%
1990	18,683	18,683		0.0%
1991	13,946	13,946	0	0.0%
1992	39,293	39,293	0	
1993	329,494	329,494	0	0.0%
1994	126,181	126,181	0	0.0%
1995	157,537	157,537	0	0.0%
1996	75,097	75,097	0	0.0%
1997	572,332	572,332	0	0.0%
1998	98,687	98,687	0	0.0%
1999	203,725	203,725	0	0.0%
2000	81,660	81,660	0	0.0%
2001	555,168	555,168	0	0.0%
2002	167,747	167,747	0	0.0%
2003	168,870	168,870	0	0.0%
2004	49,417	49,417	0	0.0%
2005	243,966	243,966	0	0.0%
2006	145,431	145,431	0	0.0%
2007	275,826	275,826	0	0.0%
2008	136,527	136,527	0	0.0%
2009	31,122	31,122	0	0.0%
2010	161,512	161,512	0	0.0%
2011	87,731	87,731	0	0.0%
2012	38,269	38,269	0	0.0%
2013	238,300	234,785	(3,515)	-1.5%
2013	134,000	104,340	(29,660)	-22.1%
2015	143,000	76,478	(66,522)	-46.5%
2013	143,000	, 0, . , 0	(,)	
Total	\$4,405,440	\$4,305,744	(\$99,696)	-2.3%

- (2) From Pinnacle's analysis of unpaid loss & LAE at 12/31/2015
- (3) From Exhibit 3, Col (13)
- (4) = (3) (2)
- (5) = (4)/(2)

Selected Ultimate Loss Retained Limits

- - (Selected	Unumate	(13)	(CT)	\$111,919	18,683	13,946	39,293	329,494	126,181	157,537	75,097	572,332	98,687	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,52/	31,122	161,512	87,731	38,269	234,785	104,340	/6,4/8	150,000	\$4,455,744						
MVRMA	Paid	BF Mothod	Method (12)	(77)	\$111,919	18,683	13,946	39,293	329,494	126,181	157,537	75,097	572,332	28,687	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,527	31,122	162,189	89,494	41,163	239,572	119,177	129,363	138,136	\$4,521,721						
MVRMA	Incurred	18	Method	(11)	\$111,919	18,683	13,946	39,293	329,494	126,181	157,537	75,097	572,332	289'86	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,527	31,122	161,512	87,731	38,409	235,502	106,438	112,740	146,579	\$4,491.538						
MVRMA	Expected	Loss	Method	(10)	\$30,614	38,390	46,611	51,389	61,030	69,474	62,744	69,518	80,270	86,465	86,570	91,529	91,863	101,590	103,660	116,145	122,886	123,028	125,082	130,973	135,221	136,078	137,011	139,751	143,841	141,457	141,386	144,450	\$20 808 65	25,000,24					
	Average	Paid	Method	(6)	\$111,919	18,683	13,946	39,293	329.494	126,181	157,537	75,097	572,332	98,687	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,527	31,122	161,673	88,170	38,692	239,038	113,666	107,475	146,445	¢4 407 786	00///64/46					
ent	Average	Incurred	Method	(8)	\$111,919	18,683	13,946	39,293	329 494	126 181	157 537	75.097	572,332	98,687	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,527	31,122	161,512	87,731	38,269	235,490	106,223	98,101	136,440	A ACC 30A	\$4,400,394					
MVRMA's Loss Development	Case	Reserve	Method	(7)	\$111,919	18.683	13 946	30 203	379 494	126 181	157,161	75,097	572,332	98.687	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,527	31,122	161,512	87,731	38,269	234,785	104,340	76,478	162,040	100	\$4,467,784	<u>(</u>	Col (2)	Sol (4)	(8)	
MVRMA	Paid	Loss	Method	(9)	\$111 919	18 683	13 976	500.00	59,295	100,434	125,181	75,757	13,037	98 687	20,23	81.660	555 168	167,747	168.870	49,417	243,966	145,431	275.826	136.527	31.122	162 319	88.875	39.079	242,867	116,566	122,178	128,511	4	\$4,503,023		From Exhibit 10, Col (7) From Exhibit 11, Col (7)	From Exhibit 4, Col (4)	From Exhibit 5, Col (8)	
	Incurred	Loss	Method	(5)	\$111.010	10,583	12,005	13,540	39,293	329,494	126,181	157,537	75,097	265,275	70,000	81,660	51,000	167 747	168 870	49.417	743 966	145 431	775 876	136 527	31 127	161 512	87 731	30,75	735,960	105 911	102 859	147,943		\$4,482,851	Ş	(e) (e) (e)	(10)	(12)	
tuo con co	Paid	Loss	Method	(4)	7	40,1114	18,683	13,946	39,293	329,494	126,181	157,537	75,097	5/2,332	98,087	203,723	81,000	255,100	169 075	C/C,001 07/ 0/	0/4/C4 0/5/04	176,156	140,130	120,304	126,273	166 104	100,134	247,27C	42,203	161 201	172,501	249,550		\$4,784,681					
trompolous Control	Industry Devel	Loss	Method	(3)		\$111,919	18,683	13,946	39,293	329,494	126,181	157,537	75,097	572,332	98,687	203,725	81,660	555,168	167,773	168,923	49,440	244,270	145,/94	207,112	137,347	51,551	162,920	00,000	39,320	120,860	103 696	172,968		\$4,545,328		tMA	2, Col (4)	ol (4)	(8)
	I		Retention	(2)		\$250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	200,000	200,000	500,000	500,000	500,000	500,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	500,000	500,000	500,000	500,000	200,000	500,000				Provided by MVRMA	From Exhibit 12.2, Col (4)	From Exhibit 8, Col (4) From Exhibit 8, Col (4)	From Exhibit 9, Col (8)
		100	Accident	(1)		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 2016		Total	Notes:	(5)	(4)	(S) (e)	(7)

Ultimate Loss Based on Bornhuetter-Ferguson Method Using Incurred Loss Retained Limits

Accident Year (1)	Number of Vehicles (2)	Selected Loss Cost (3)	Expected Loss (4)	Percent Undeveloped (5)	Undeveloped Loss (6)	Cumulative Incurred Loss (7)	Projected Ultimate Loss (8)	Indicated Loss Cost (9)
ν-7	. ,				\$0	\$111,919	\$111,919	\$210
1989	534	\$57	\$30,614	0.0%	\$0 \$0	18,683	18,683	28
1990	663	58	38,390	0.0%	0	13,946	13,946	17
1991	797	58	46,611	0.0%		39,293	39,293	45
1992	870	59	51,389	0.0%	0	329,494	329,494	322
1993	1,023	60	61,030	0.0%	0	126,181	126,181	109
1994	1,153	60	69,474	0.0%	0	157,537	157,537	153
1995	1,031	61	62,744	0.0%	0	·	75,097	66
1996	1,131	61	69,518	0.0%	0	75,097	572,332	443
1997	1,293	62	80,270	0.0%	0	572,332	98,687	72
1998	1,379	63	86,465	0.0%	0	98,687	203,725	149
1999	1,367	63	86,570	0.0%	0	203,725	81,660	57
2000	1,431	64	91,529	0.0%	0	81,660	555,168	390
2001	1,422	65	91,863	0.0%	0	555,168	167,747	108
2002	1,557	65	101,590	0.0%	0	167,747	168,870	107
2003	1,573	66	103,660	0.0%	0	168,870	49,417	28
2004	1,745	67	116,145	0.0%	0	49,417		133
2005	1,828	67	122,886	0.0%	0	243,966	243,966	80
2006	1,812	68	123,028	0.0%	0	145,431	145,431	151
2007	1,824	69	125,082	0.0%	0	275,826	275,826	72
2008	1,891	69	130,973	0.0%	0	136,527	136,527	16
2009	1,933	70	135,221	0.0%	0	31,122	31,122	84
2010	1,926	71	136,078	0.0%	0	161,512	161,512	46
2011	1,920	71	137,011	0.0%	0	87,731	87,731	20
2012	1,939	72	139,751	0.1%	140	38,269	38,409	119
2013	1,976	73	143,841	0.5%	716	234,785	235,502	
2014	1,924	74	141,457	1.5%	2,098	104,340	106,438	55 59
2015	1,904	74	141,386	25.6%	36,262	76,478	112,740	
2016	1,926	75	144,450	39.1%	56,416	90,163	146,579	76
Total	41,772		\$2,809,026		\$95,631	\$4,395,907	\$4,491,538	\$108

- (2) Provided by MVRMA
 (3) From Exhibit 6.1, Col (8)
 (4) = (2) x (3)
 (5) Based on Exhibit 13
 (6) = (4) x (5)

- (7) Provided by MVRMA (8) = (6) + (7) (9) = (8) / (2)

Ultimate Loss Based on Bornhuetter-Ferguson Method Using Paid Loss Retained Limits

Accident	Number of	Selected Loss	Expected	Percent Undeveloped	Undeveloped Loss	Cumulative Paid Loss	Projected Ultimate Loss	Indicated Loss Cost
Year	Vehicles	Cost	Loss		(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(0)	(7)	(0)	(5)
1989	534	\$57	\$30,614	0.0%	\$0	\$111,919	\$111,919	\$210
1990	663	58	38,390	0.0%	0	18,683	18,683	28
1991	797	58	46,611	0.0%	0	13,946	13,946	17
1992	870	59	51,389	0.0%	Ō	39,293	39,293	45
1993	1,023	60	61,030	0.0%	0	329,494	329,494	322
1994	1,153	60	69,474	0.0%	0	126,181	126,181	109
1995	1,031	61	62,744	0.0%	0	157,537	157,537	153
1996	1,131	61	69,518	0.0%	0	75,097	75,097	66
1997	1,293	62	80,270	0.0%	0	572,332	572,332	443
1998	1,379	63	86,465	0.0%	0	98,687	98,687	72
1999	1,367	63	86,570	0.0%	0	203,725	203,725	149
2000	1,431	64	91,529	0.0%	0	81,660	81,660	57
2001	1,422	65	91,863	0.0%	0	555,168	555,168	390
2002	1,557	65	101,590	0.0%	0	167,747	167,747	108
2003	1,573	66	103,660	0.0%	0	168,870	168,870	107
2004	1,745	67	116,145	0.0%	0	49,417	49,417	28
2005	1,828	67	122,886	0.0%	0	243,966	243,966	133
2006	1,812	68	123,028	0.0%	0	145,431	145,431	80
2007	1,824	69	125,082	0.0%	0	275,826	275,826	151
2008	1,891	69	130,973	0.0%	0	136,527	136,527	72
2009	1,933	70	135,221	0.0%	0	31,122	31,122	16
2010	1,926	71	136,078	0.5%	677	161,512	162,189	84
2011	1,920	71	137,011	1.3%	1,764	87,731	89,494	47
2012	1,939	72	139,751	2.1%	2,894	38,269	41,163	21
2013	1,976	73	143,841	3.3%	4,786	234,785	239,572	121
2014	1,924	74 .	141,457	10.5%	14,836	104,340	119,177	62
2015	1,904	74	141,386	37.4%	52,885	76,478	129,363	68
2016	1,926	75	144,450	60.4%	87,223	50,913	138,136	72
Total	41,772		\$2,809,026		\$165,064	\$4,356,657	\$4,521,721	\$108

- tes:
 (2) Provided by MVRMA
 (3) From Exhibit 6.1, Col (8)
 (4) = (2) x (3)
 (5) Based on Exhibit 13
 (6) = (4) x (5)
 (7) Provided by MVRMA
 (8) = (6) + (7)
 (9) = (8) / (2)

Initial Expected Loss Cost Retained Limits

Accident Year	Number of Vehicles	Initial Ultimate Loss	Indicated Loss Cost	Limits Factor to \$500K	Trend Factor to 2016	Trended \$500K Limits Loss Cost	Expected Loss Cost
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(-7	. ,			4 000	1 200	\$274	\$57
1989	534	\$111,919	\$210	1.000	1.308 1.295	36	58
1990	663	18,683	28	1.000	1.282	22	58
1991	797	13,946	17	1.000		57	59
1992	870	39,293	45	1.000	1.270 1.257	405	60
1993	1,023	329,494	322	1.000		136	60
1994	1,153	126,181	109	1.000	1.245	188	61
1995	1,031	157,537	153	1.000	1.232	81	61
1996	1,131	75,097	66	1.000	1.220	535	62
1997	1,293	572,332	443	1.000	1.208	353 86	63
1998	1,379	98,687	72	1.000	1.196	176	63
1999	1,367	203,725	149	1.000	1.184	67	64
2000	1,431	81,660	57	1.000	1.173	453	65
2001	1,422	555,168	390	1.000	1.161	455 124	65
2002	1,557	167,747	108	1.000	1.149	124	66
2003	1,573	168,870	107	1.000	1.138		67
2004	1,745	49,417	28	1.000	1.127	32	67
2005	1,828	243,966	133	1.000	1.116	149	68
2006	1,812	145,431	80	1.000	1.105	89	69
2007	1,824	275,826	151	1.000	1.094	165	69
2008	1,891	136,527	72	1.000	1.083	78 47	70
2009	1,933	31,122	16	1.000	1.072	17	70 71
2010	1,926	161,512	84	1.000	1.062	89	71 71
2011	1,920	87,731	46	1.000	1.051	48	
2012	1,939	38,308	20	1.000	1.041	21	72
2013	1,976	235,960	119	1.000	1.030	123	73
2014	1,924	105,911	55	1.000	1.020	56	74
2015	1,904	102,859	54	1.000	1.010	55	74
2016	1,926	147,943	77	1.000	1.000	77	75
Total	41,772	\$4,482,851	\$107	1/	Average Ex. Hi/Lo 0-Year Weighted Avg	\$115 73	
						68	
					eighted Avg Ex. Hi/Lo 5-Year Weighted Avg	66	
				Se	lected 2015 Loss Cost	\$75	

- (2) Provided by MVRMA
 (3) From Exhibit 6.2, Col (5)
- (4)
- (5)
- = (3) / (2) From Exhibit 6.3, Col (7) Based on selected trend of 1.0% (6)
- (7)
- = (4) x (5) x (6) = Selected Loss Cost / [(6) x (5)]

Initial Selected Ultimate Loss Retained Limits

Accident	Projected	Ultimate Loss Basec	l on	Initial Ultimate
Year	incurred	Paid	Case	Loss
(1)	(2)	(3)	(4)	(5)
4000	\$111,919	\$111,919	\$111,919	\$111,919
1989	18,683	18,683	18,683	18,683
1990	13,946	13,946	13,946	13,946
1991	39,293	39,293	39,293	39,293
1992	329,494	329,494	329,494	329,494
1993	126,181	126,181	126,181	126,181
1994	157,537	157,537	157,537	157,537
1995	75,097	75,097	75,097	75,097
1996	572,332	572,332	572,332	572,332
1997	98,687	98,687	98,687	98,687
1998	203,725	203,725	203,725	203,725
1999	81,660	81,660	81,660	81,660
2000	555,168	555,168	555,168	555,168
2001	167,747	167,747	167,747	167,747
2002	168,870	168,870	168,870	168,870
2003	49,417	49,417	49,417	49,417
2004	243,966	243,966	243,966	243,966
2005	243,966 145,431	145,431	145,431	145,431
2006	275,826	275,826	275,826	275,826
2007	136,527	136,527	136,527	136,527
2008	31,122	31,122	31,122	31,122
2009	161,512	162,319	161,512	161,512
2010	87,731	88,875	87,731	87,731
2011	38,308	39,079	38,269	38,308
2012	235,960	242,867	234,785	235,960
2013		116,566	104,340	105,911
2014	105,911	122,178	76,478	102,859
2015	102,859	128,511	162,040	147,943
2016	147,943	120,311	102,010	,
Total	\$4,482,851	\$4,503,023	\$4,467,784	\$4,482,851

- (2) From Exhibit 7, Col (4)
- (3) From Exhibit 8, Col (4)
- (4) From Exhibit 9, Col (8)

Estimated Limits Factor

Accident			Losses at	Incurred Limits	Industry Limits	Selected Limits Factors
Year	Retention	\$500K Limits	Retention Limits	Factors	Factors	(7)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			ċ444 040	1.000		1.000
1989	\$250,000	\$111,919	\$111,919	1.000		1.000
1990	250,000	18,683	18,683			1.000
1991	250,000	13,946	13,946	1.000 1.000		1.000
1992	250,000	39,293	39,293			1.000
1993	250,000	329,494	329,494	1.000		1.000
1994	250,000	126,181	126,181	1.000		1.000
1995	250,000	157,537	157,537	1.000		1.000
1996	250,000	75,097	75,097	1.000	4.000	1.000
1997	500,000	572,332	572,332	1.000	1.000	1.000
1998	500,000	98,687	98,687	1.000	1.000	
1999	500,000	203 <i>,</i> 725	203,725	1.000	1.000	1.000
2000	500,000	81,660	81,660	1.000	1.000	1.000
2001	500,000	555,168	555,168	1.000	1.000	1.000
2002	500,000	167,747	167 <i>,</i> 747	1.000	1.000	1.000
2003	1,000,000	168,870	168,870	1.000	0.899	1.000
2004	1,000,000	49,417	49,417	1.000	0.896	1.000
2005	1,000,000	243,966	243,966	1.000	0.894	1.000
2006	1,000,000	145,431	145,431	1.000	0.891	1.000
2007	1,000,000	275,826	275,826	1.000	0.889	1.000
2008	1,000,000	136,527	136,527	1.000	0.886	1.000
2009	1,000,000	31,122	31,122	1.000	0.884	1.000
2010	500,000	161,512	161,512	1.000	1.000	1.000
2011	500,000	87,731	87,731	1.000	1.000	1.000
2012	500,000	38,269	38,269	1.000	1.000	1.000
2012	500,000	234,785	234,785	1.000	1.000	1.000
2013	500,000	104,340	104,340	1.000	1.000	1.000
	500,000	76,478	76,478	1.000	1.000	1.000
2015	500,000	90,163	90,163	1.000	1.000	1.000
2016	300,000	50,105	55,255			
Total		\$4,395,907	\$4,395,907			

Notes:

(2)-(4) Provided by MVRMA

(5) = (3)/(4)

(6) Based on insurance industry development

Ultimate Loss Based on Incurred Loss Development Method Retained Limits

Accident	Cumulative Incurred	Loss Development	Projected Ultimate
Year	Loss	Factors	Loss
(1)	(2)	(3)	(4)
(-)	• •		
1989	\$111,919	1.000	\$111,919
1990	18,683	1.000	18,683
1991	13,946	1.000	13,946
1992	39,293	1.000	39,293
1993	329,494	1.000	329,494
1994	126,181	1.000	126,181
1995	157,537	1.000	157,537
1996	75,097	1.000	75,097
1997	572,332	1.000	572,332
1998	98,687	1.000	98,687
1999	203,725	1.000	203,725
2000	81,660	1.000	81,660
2001	555,168	1.000	555,168
2002	167,747	1.000	167,747
2003	168,870	1.000	168,870
2004	49,417	1.000	49,417
2005	243,966	1.000	243,966
2006	145,431	1.000	145,431
2007	275,826	1.000	275,826
2008	136,527	1.000	136,527
2009	31,122	1.000	31,122
2010	161,512	1.000	161,512
2011	87,731	1.000	87,731
2012	38,269	1.001	38,308
2013	234,785	1.005	235,960
2014	104,340	1.015	105,911
2015	76,478	1.345	102,859
2016	90,163	1.641	147,943
			64 402 0E4
Total	\$4,395,907		\$4,482,851

- (2) Provided by MVRMA
- (3) Based on Exhibit 13
- (4) = $(2) \times (3)$

Ultimate Loss Based on Paid Loss Development Method Retained Limits

	Cumulative	Loss	Projected
Accident	Paid	Development	Ultimate
Year	Loss	Factors	Loss
(1)	(2)	(3)	(4)
, ,			****
1989	\$111,919	1.000	\$111,919
1990	18,683	1.000	18,683
1991	13,946	1.000	13,946
1992	39,293	1.000	39,293
1993	329,494	1.000	329,494
1994	126,181	1.000	126,181
1995	157,537	1.000	157,537
1996	75,097	1.000	75,097
1997	572,332	1.000	572,332
1998	98,687	1.000	98,687
1999	203,725	1.000	203,725
2000	81,660	1.000	81,660
2001	555,168	1.000	555,168
2002	167,747	1.000	167,747
2003	168,870	1.000	168,870
2004	49,417	1.000	49,417
2005	243,966	1.000	243,966
2006	145,431	1.000	145,431
2007	275,826	1.000	275,826
2008	136,527	1.000	136,527
2009	31,122	1.000	31,122
2010	161,512	1.005	162,319
2011	87,731	1.013	88,875
2012	38,269	1.021	39,079
2013	234,785	1.034	242,867
2014	104,340	1.117	116,566
2015	76,478	1.598	122,178
2016	50,913	2.524	128,511
	·		
Total	\$4,356,657		\$4,503,023

- (2) Provided by MVRMA
- (3) Based on Exhibit 13
- (4) = $(2) \times (3)$

Ultimate Loss Based on Case Reserve Development Method Retained Limits

		Cumulative	_				Projected
Accident		Paid	Case		Development Facto		Ultimate
Year	Retention	Loss	Reserves	Incurred	Paid	Reserve	Loss
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1989	\$250,000	\$111,919	\$0	100.0%	100.0%	100.0%	\$111,919
1990	250,000	18,683	0	100.0%	100.0%	100.0%	18,683
1991	250,000	13,946	0	100.0%	100.0%	100.0%	13,946
1992	250,000	39,293	0	100.0%	100.0%	100.0%	39,293
1993	250,000	329,494	0	100.0%	100.0%	100.0%	329,494
1994	250,000	126,181	0	100.0%	100.0%	100.0%	126,181
1995	250,000	157,537	0	100.0%	100.0%	100.0%	157,537
1996	250,000	75,097	0	100.0%	100.0%	100.0%	75,097
1997	500,000	572,332	0	100.0%	100.0%	100.0%	572,332
1998	500,000	98,687	0	100.0%	100.0%	100.0%	98,687
1999	500,000	203,725	0	100.0%	100.0%	100.0%	203,725
2000	500,000	81,660	0	100.0%	100.0%	100.0%	81,660
2001	500,000	555,168	0	100.0%	100.0%	100.0%	555,168
2002	500,000	167,747	0	100.0%	100.0%	100.0%	167,747
2003	1,000,000	168,870	0	100.0%	100.0%	100.0%	168,870
2004	1,000,000	49,417	0	100.0%	100.0%	100.0%	49,417
2005	1,000,000	243,966	0	100.0%	100.0%	100.0%	243,966
2006	1,000,000	145,431	0	100.0%	100.0%	100.0%	145,431
2007	1,000,000	275,826	0	100.0%	100.0%	100.0%	275,826
2008	1,000,000	136,527	0	100.0%	100.0%	100.0%	136,527
2009	1,000,000	31,122	0	100.0%	100.0%	100.0%	31,122
2010	500,000	161,512	0	100.0%	99.5%	100.0%	161,512
2011	500,000	87,731	0	100.0%	98.7%	100.0%	87,731
2012	500,000	38,269	0	99.9%	97.9%	95.2%	38,269
2013	500,000	234,785	0	99.5%	96.7%	85.0%	234,785
2014	500,000	104,340	0	98.5%	89.5%	85.9%	104,340
2015	500,000	76,478	0	74.4%	62.6%	31.4%	76,478
2016	500,000	50,913	39,250	60.9%	39.6%	35.3%	162,040
Total		\$4,356,657	\$39,250				\$4,467,784

Notes:

(2)-(4) Provided by MVRMA (5)-(6) Based on Exhibit 13

(7) = [(5) - (6)] / [(1.0 - (6)](8) = (3) + [(4) / (7)]

Ultimate Loss Based on Incurred Loss per Reported Claim Development Method Retained Limits

Accident Year (1)	Retention (2)	Cumulative Incurred Loss per Reported Claim (3)	Loss Development Factors (4)	Projected Average Loss (5)	Selected Ultimate Claims (6)	Projected Ultimate Loss (7)
(1)	(2)	(0)	, ,			
1989	\$250,000	\$2,603	1.000	\$2,603	43	\$111,919
1990	250,000	566	1.000	566	33	18,683
1991	250,000	536	1.000	536	26	13,946
1992	250,000	1,034	1.000	1,034	38	39,293
1993	250,000	5,492	1.000	5,492	60	329,494
1994	250,000	1,753	1.000	1,753	72	126,181
1995	250,000	1,853	1.000	1,853	85	157,537
1996	250,000	659	1.000	659	114	75,097
1997	500,000	5,840	1.000	5,840	98	572,332
1998	500,000	1,148	1.000	1,148	86	98,687
1999	500,000	1,684	1.000	1,684	121	203,725
2000	500,000	785	1.000	785	104	81,660
2001	500,000	6,455	1.000	6,455	86	555,168
2001	500,000	2,097	1.000	2,097	80	167,747
2002	1,000,000	1,443	1.000	1,443	117	168,870
2004	1,000,000	575	1.000	575	86	49,417
2004	1,000,000	2,489	1.000	2,489	98	243,966
2006	1,000,000	2,078	1.000	2,078	70	145,431
2007	1,000,000	2,815	1.000	2,815	98	275,826
2007	1,000,000	1,796	1.000	1,796	76	136,527
2009	1,000,000	546	1.000	546	57	31,122
2010	500,000	2,071	1.000	2,071	78	161,512
2010	500,000	1,186	1.000	1,186	74	87,731
2011	500,000	736	1.000	736	52	38,269
2012	500,000	5,104	1.003	5,119	46	235,490
2013	500,000	1,338	1.018	1,362	78	106,223
	500,000	1,500	1.283	1,924	51	98,101
2015 2016	500,000	1,307	1.411	1,844	74	136,440
2010	300,000	_,50,				
Total				\$2,126	2,101	\$4,466,394

- (2) Provided by MVRMA
- (3) Based on data provided by MVRMA
- (4) Based on Exhibit 14
- $(5) = (3) \times (4)$
- (6) From Exhibit 19, Col (6)
- $(7) = (5) \times (6)$

Ultimate Loss Based on Paid Loss per Closed Claim Development Method Retained Limits

Accident Year (1)	Retention (2)	Cumulative Paid Loss per Closed Claim (3)	Loss Development Factors (4)	Projected Average Loss (5)	Selected Ultimate Claims (6)	Projected Ultimate Loss (7)
` ,				¢2.603	43	\$111,919
1989	\$250,000	\$2,603	1.000	\$2,603	33	18,683
1990	250,000	566	1.000	566	26	13,946
1991	250,000	536	1.000	536	38	39,293
1992	250,000	1,034	1.000	1,034		329,494
1993	250,000	5,492	1.000	5,492	60	•
1994	250,000	1,753	1.000	1,753	72	126,181 157,537
1995	250,000	1,853	1.000	1,853	85	,
1996	250,000	659	1.000	659	114	75,097
1997	500,000	5,840	1.000	5,840	98	572,332
1998	500,000	1,148	1.000	1,148	86	98,687
1999	500,000	1,684	1.000	1,684	121	203,725
2000	500,000	785	1.000	785	104	81,660
2001	500,000	6,455	1.000	6,455	86	555,168
2002	500,000	2,097	1.000	2,097	80	167,747
2003	1,000,000	1,443	1.000	1,443	117	168,870
2004	1,000,000	575	1.000	575	86	49,417
2005	1,000,000	2,489	1.000	2,489	98	243,966
2006	1,000,000	2,078	1.000	2,078	70	145,431
2007	1,000,000	2,815	1.000	2,815	98	275,826
2008	1,000,000	1,796	1.000	1,796	76	136,527
2009	1,000,000	546	1.000	546	57	31,122
2010	500,000	2,071	1.001	2,073	78	161,673
2011	500,000	1,186	1.005	1,191	74	88,170
2012	500,000	736	1.011	744	52	38,692
2013	500,000	5,104	1.018	5,196	46	239,038
2014	500,000	1,338	1.089	1,457	78	113,666
	500,000	1,500	1.405	2,107	51	107,475
2015	500,000	1,083	1.827	1,979	74	146,445
2016	300,000	1,000		·		
Total				\$2,141	2,101	\$4,497,786

- (2) Provided by MVRMA
- (3) Based on data provided by MVRMA
- (4) Based on Exhibit 14
- $(5) = (3) \times (4)$
- (6) From Exhibit 19, Col (6)
- $(7) = (5) \times (6)$

Ultimate Loss Based on Incurred Loss Development Method Using Industry Factors Retained Limits

Accident Year	Cumulative Incurred Loss	Industry Loss Development Factors	Projected Ultimate Loss
(1)	(2)	(3)	(4)
1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004	\$111,919 18,683 13,946 39,293 329,494 126,181 157,537 75,097 572,332 98,687 203,725 81,660 555,168 167,747 168,870 49,417 243,966	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	\$111,919 18,683 13,946 39,293 329,494 126,181 157,537 75,097 572,332 98,687 203,725 81,660 555,168 167,773 168,923 49,448 244,270
2005	243,966 145,431	1.002	145,794
2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	275,826 136,527 31,122 161,512 87,731 38,269 234,785 104,340 76,478 90,163	1.005 1.006 1.007 1.009 1.014 1.027 1.069 1.158 1.356 1.918	277,205 137,347 31,331 162,920 88,938 39,320 250,880 120,802 103,686 172,968
Total	\$4,395,907		\$4,545,328

- (2) Provided by MVRMA
- (3) Based on insurance industry development
- (4) = $(2) \times (3)$

Ultimate Loss Based on Paid Loss Development Method Using Industry Factors Retained Limits

		Industry	
	Cumulative	Loss	Projected
Accident	Paid	Development	Ultimate
Year	Loss	Factors	Loss
(1)	(2)	(3)	(4)
1989	\$111,919	1.000	\$111,919
1990	18,683	1.000	18,683
1991	13,946	1.000	13,946
1992	39,293	1.000	39,293
1993	329,494	1.000	329,494
1994	126,181	1.000	126,181
1995	157,537	1.000	1 57,537
1996	75,097	1.000	75,097
1997	572,332	1.000	572,332
1998	98,687	1.000	98,687
1999	203,725	1.000	203,725
2000	81,660	1.000	81,660
2001	555,168	1.000	555,168
2002	167,747	1.000	167,799
2003	168,870	1.001	168,975
2004	49,417	1.001	49,479
2005	243,966	1.002	244,574
2006	145,431	1.005	146,156
2007	275,826	1.010	278,584
2008	136,527	1.014	138,375
2009	31,122	1.019	31,701
2010	161,512	1.029	166,194
2011	87,731	1.051	92,242
2012	38,269	1.105	42,269
2013	234,785	1.241	291,352
2014	104,340	1.545	161,201
2015	76,478	2.256	172,507
2016	50,913	4.902	249,550
Total	\$4,356,657		\$4,784,681

- (2) Provided by MVRMA
- (3) Based on insurance industry development
- (4) = $(2) \times (3)$

Loss Development Patterns

	\$500K Limits %	Dougland	\$1M Limits % [Developed	Industry % Developed			
Month of _			Incurred	Paid	Incurred	Paid		
Development	(2)	Paid (3)	(4)	(5)	(6)	(7)		
(1)	(2)	(5)	(' '	, ,				
336	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
324	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
312	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
300	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
288	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
288 276	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
264	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
252	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
240	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
228	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
216 204	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
204 192	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
180	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%		
168	100.0%	100.0%	100.0%	100.0%	99.9%	99.9%		
156	100.0%	100.0%	100.0%	100.0%	99.9%	99.8%		
144	100.0%	100.0%	100.0%	100.0%	99.8%	99.5%		
132	100.0%	100.0%	100.0%	100.0%	99.5%	99.0%		
120	100.0%	100.0%	100.0%	100.0%	99.4%	98.7%		
108	100.0%	100.0%	100.0%	100.0%	99.3%	98.2%		
96	100.0%	99.5%	100.0%	99.2%	99.1%	97.2%		
84	100.0%	98.7%	100.0%	98.4%	98.6%	95.1%		
72	99.9%	97.9%	99.8%	97.4%	97.3%	90.5%		
60	99.5%	96.7%	99.2%	94.3%	93.6%	80.6%		
48	98.5%	89.5%	94.2%	80.4%	86.4%	64.7%		
36	98.5% 74.4%	62.6%	69.2%	53.2%	73.8%	44.3%		
24	74.4% 60.9%	39.6%	45.7%	20.5%	52.1%	20.4%		
12	60.970	33.070	13.773					

- (2) Based on Exhibit 15
- (3) Based on Exhibit 16
- (4) = Col (2) lagged 6 months
- (5) = Col (3) lagged 6 months
- (6)-(7) Based on insurance industry development

Severity Development Patterns

Month of	\$500K Limits %	Developed	\$1M Limits % Developed				
Development	Incurred	Paid	Incurred	Paid			
(1)	(2)	(3)	(4)	(5)			
336	100.0%	100.0%	100.0%	100.0%			
324	100.0%	100.0%	100.0%	100.0%			
312	100.0%	100.0%	100.0%	100.0%			
300	100.0%	100.0%	100.0%	100.0%			
288	100.0%	100.0%	100.0%	100.0%			
276	100.0%	100.0%	100.0%	100.0%			
264	100.0%	100.0%	100.0%	100.0%			
252	100.0%	100.0%	100.0%	100.0%			
240	100.0%	100.0%	100.0%	100.0%			
228	100.0%	100.0%	100.0%	100.0%			
216	100.0%	100.0%	100.0%	100.0%			
204	100.0%	100.0%	100.0%	100.0%			
192	100.0%	100.0%	100.0%	100.0%			
180	100.0%	100.0%	100.0%	100.0%			
168	100.0%	100.0%	100.0%	100.0%			
156	100.0%	100.0%	100.0%	100.0%			
144	100.0%	100.0%	100.0%	100.0%			
132	100.0%	100.0%	100.0%	100.0%			
120	100.0%	100.0%	100.0%	100.0%			
108	100.0%	100.0%	100.0%	100.0%			
96	100.0%	100.0%	100.0%	100.0%			
84	100.0%	99.9%	100.0%	99.8%			
72	100.0%	99.5%	100.0%	99.3%			
60	100.0%	98.9%	100.0%	98.6%			
48	99.7%	98.2%	99.3%	96.3%			
36	98.2%	91.8%	94.1%	85.0%			
24	78.0%	71.2%	75.2%	64.7%			
12	70.9%	54.7%	62.6%	37.2%			

- (2) Based on Exhibit 17
- (3) Based on Exhibit 18
- (4) = Col (2) lagged 6 months
- (5) = Col (3) lagged 6 months

Miami Valley Risk Management Association Auto Liability (AB, AD) December 31, 2016 Incurred Loss at \$500K SIR

						I	ncurred Loss	at \$500K SIR						
Accident							Maturity (Age	in Months)						
Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168
1989	8,914	8,614	111,919	111,919	111,919	111,919	111,919	111,919	111,919	111,919	111,919	111,919	111,919	111,919
1990	10,151	18,683	18,683	18,683	18,683	18,683	18,683	18,683	18,683	18,683	18,683	18,683	18,683	18,683
1991	8,919	9,074	16,074	13,946	13,946	13,946	13,946	13,946	13,946	13,946	13,946	13,946	13,946	13,946
1992	19,584	19,882	31,332	36,705	40,205	39,293	39,293	39,293	39,293	39,293	39,293	39,293	39,293	39,293
1993	94,156	286,741	336,879	340,644	329,494	329,494	329,494	329,494	329,494	329,494	329,494	329,494	329,494	329,494
1994	62,084	154,951	125,930	126,992	126,181	126,181	126,181	126,181	126,181	126,181	126,181	126,181	126,181	126,181
1995	145,570	140,533	165,780	157,537	157,537	157,537	157,537	157,537	157,537	157,537	157,537	157,537	157,537	157,537
1996	69,113	81,178	80,302	74,641	74,641	74,641	74,641	75,097	75,097	75,097	75,097	75,097	75,097	75,097
1997	227,596	274,452	586,917	572,332	572,332	572,332	572,332	572,332	572,332	572,332	572,332	572,332	572,332	572,332
1998	84,207	93,223	95,750	98,687	98,687	98,687	98,687	98,687	98,687	98,687	98,687	98,687	98,687	98,687
1999	136,069	138,607	164,173	196,158	203,725	203,725	203,725	203,725	203,725	203,725	203,725	203,725	203,725	203,725
2000				81,660	81,660	81,660	81,660	81,660	81,660	81,660	81,660	81,660	81,660	81,660
	76,221 93,763	80,265 482,169	82,765 649,669	939,169	843,409	534,626	534,626	555,168	555,168	555,168	555,168	555,168	555,168	555,168
2001			167,747		167,747	167,747	167,747	167,747	167,747	167,747	167,747	167,747	167,747	167,747
2002	73,431	187,369		167,747	168,870	168,870	168,870	168,870	168,870	168,870	168,870	168,870	168,870	168,870
2003	87,086	135,372	190,622	168,870							49,417		49,417	168,870
2004	50,836	54,917	49,417	49,417	49,417	49,417	49,417	49,417	49,417	49,417		49,417	49,417	
2005	100,944	156,905	194,307	219,833	235,833	260,833	243,966	243,966	243,966	243,966	243,966	243,966		
2006	65,100	83,931	145,431	145,431	145,431	145,431	145,431	145,431	145,431	145,431	145,431			
2007	86,271	181,275	271,519	275,715	275,826	275,826	275,826	275,826	275,826	275,826				
2008	79,819	89,446	131,946	136,527	136,527	136,527	136,527	136,527	136,527					
2009	39,122	31,122	31,122	31,122	31,122	31,122	31,122	31,122						
2010	105,993	137,233	161,512	161,512	161,512	161,512	161,512							
2011	86,062	114,779	87,731	87,731	87,731	87,731								
2012	40,220	38,269	38,269	38,269	38,269									
2013	106,110	108,494	234,785	234,785										
2014	88,724	90,240	104,340											
2015	86,498	76,478												
2016	90,163													
Accident							to-Age Facto							
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1989	0.966	12.993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.841	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.017	1.771	0.868	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.015	1.576	1.171	1.095	0.977	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1993	3.045	1.175	1.011	0.967	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1994	2.496	0.813	1.008	0.994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	0.965	1.180	0,950	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.175	0.989	0.930	1.000	1.000	1.000	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.206	2.139	0.975	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.107	1.027	1.031	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.019	1.184	1.195	1.039	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.053	1.031	0.987	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1,000
2001	5.142	1.347	1,446	0.898	0.634	1.000	1.038	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	2.552	0.895	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1.554	1.408	0.886	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1.080	0.900	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1,000	1.000	1.000	1.000	
2004	1.554	1.238	1.131	1.000	1.106	0.935	1.000	1.000	1.000	1.000	1.000	1.000		
				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
2006	1.289	1.733	1.000							1,000				
2007	2.101	1.498	1.015	1.000	1.000	1,000	1.000	1.000	1.000					
2008	1.121	1.475	1.035	1.000	1.000	1.000	1.000	1.000						
2009	0.796	1.000	1.000	1.000	1,000	1.000	1.000							
2010	1.295	1,177	1.000	1.000	1.000	1.000								
2011	1.334	0.764	1.000	1.000	1.000									
2012	0.951	1.000	1.000	1.000										
2013	1.022	2.164	1.000											
2014	1.017	1.156												
2015	0.884													
All Yr Vol	1.535	1.337	1.076	0.981	0.931	0.996	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000
All Yr Vol Ex. H/L	1.381	1.326	1.008	1.004	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol	1.213	1.358	1.025	1.012	1.017	0.991	1.011	1.000	1.000	1.000	1.000	1,000	1.000	1.000
10 Yr Vol Ex. H/L	1.122	1.334	1.008	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Vol	1.051	1.281	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Vol Ex. H/L	1.008	1.144	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1,000	1,000	1,000
3 Yr Vol	0.978	1.592	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Prior	1,300	1.350	1.010	1.004	1.001	1.000	1.000	1.000	1.000	1,000	1.000	1,000	1.000	1.000
, 1101	2,500	1,000												
Selected	1,220	1.325	1.010	1.004	1.001	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000
LDFs	1.641	1.345	1.015	1.005	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
% Incurred	60.9%	74.4%	98.5%	99.5%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
yo mearred	55.576	, 1. 170	20,270	22,270	22.270	_55.576		100.070	200.070	200.070	200.070	200.070	200.070	2-0.070

Miami Valley Risk Management Association Auto Liability (AB, AD) December 31, 2016 Incurred Loss at \$500K SIR

						In	curred Loss a	t \$500K SIK						
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	180 111,919 18,683 13,946 39,293 329,494 126,181 157,597 572,332 98,687 203,725 81,660 555,168 167,747	192 111,919 18,683 13,946 39,293 329,494 126,181 157,537 75,097 572,332 9203,725 81,660 555,168	204 111,919 18,683 13,946 39,293 329,494 126,181 75,097 572,382 93,725 81,660	216 111,919 18,683 13,946 3329,494 126,181 157,537 75,097 572,332 98,687 203,725	228 111,919 18,683 13,945 39,293 329,494 126,181 157,537 75,097 572,332 98,687	240 111,919 18,683 13,946 39,293 329,494 126,181 157,537 75,097 572,332	laturity (Age i 252 111,919 18,683 13,946 39,293 329,494 126,181 157,537 75,097	264 111,919 18,683 13,945 39,293 329,494 126,181 157,537	276 111,919 18,683 13,946 39,293 329,494 126,181	288 111,919 18,683 13,946 39,293 329,494	300 111,919 18,683 13,946 39,293	312 111,919 18,683 13,946	324 111,919 18,683	336 111,919
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 7008 2009 2010 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-216 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Age 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	to-Age Facto 252-264 1.000	rs 264-276	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-336 1.000	336-Ult
All Yr Vol All Yr Vol Ex. H/L 10 Yr Vol 10 Yr Vol Ex. H/L 5 Yr Vol Ex. H/L 3 Yr Vol Prior	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000	1.000	1.000	
Selected LDFs % Incurred	1.000	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1,000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1,000 1,000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%

Miami Valley Risk Management Association Auto Itability (AB, AD) December 31, 2016 Paid Loss at \$500K SIR

							1 414 2000 21 9							
Assidont						ī.	laturity (Age i	n Months)				444	156	168
Accident Year	12	24	36	48	60	72	84	96	108	120	132 111,919	144 111,919	156 111,919	111,919
1989	8,614	8,614	111,919	111,919	111,919	111,919	111,919	111,919 18,683	111,919 18,683	111,919 18,683	18,683	18,683	18,683	18,683
1990	8,126	18,683	18,683	18,683	18,683	18,683	18,683 13,946	13,946	13,946	13,946	13,946	13,946	13,946	13,946
1991	8,719	8,874	12,838	13,946	13,946	13,946 39,293	39,293	39,293	39,293	39,293	39,293	39,293	39,293	39,293
1992	14,941	16,632	21,357	25,418	25,418 329,494	329,494	329,494	329,494	329,494	329,494	329,494	329,494	329,494	329,494
1993	23,877	53,454	78,551	324,172	125,181	126,181	126,181	125,181	126,181	126,181	126,181	126,181	126,181	126,181
1994	27,039	43,451	125,930	126,992 157,537	157,537	157,537	157,537	157,537	157,537	157,537	157,537	157,537	157,537	157,537
1995	38,520	60,033 53,678	134,606 72,802	74,641	74,641	74,641	74,641	75,097	75,097	75,097	75,097	75,097	75,097	75,097
1996	44,173 34,298	68,453	565,604	572,332	572,332	572,332	572,332	572,332	572,332	572,332	572,332	572,332	572,332	572,332
1997 1998	42,307	55,723	68,250	98,687	98,687	98,687	98,687	98,687	98,687	98,687	98,687	98,687	98,687 203,725	98,687 203,725
1999	40,519	134,607	152,208	176,501	203,725	203,725	203,725	203,725	203,725	203,725	203,725	203,725	81,660	81,660
2000	52,991	72,765	74,962	81,660	81,660	81,660	81,660	81,660	81,660	81,660 555,168	81,660 555,168	81,660 555,168	555,168	555,168
2001	32,751	422,055	466,966	483,944	527,259	534,626	534,626	555,168	555,168 167,747	167,747	167,747	167,747	167,747	167,747
2002	34,887	101,869	167,747	167,747	167,747	167,747	167,747	167,747 168,870	168,870	168,870	168,870	168,870	168,870	168,870
2003	64,611	82,622	114,099	168,870	168,870	168,870 49,417	168,870 49,417	49,417	49,417	49,417	49,417	49,417	49,417	
2004	41,711	49,417	49,417	49,417	49,417	215,596	243,966	243,966	243,966	243,966	243,966	243,966		
2005	43,005	143,482	153,587	170,181 145,431	186,079 145,431	145,431	145,431	145,431	145,431	145,431	145,431			
2006	46,100	75,431	145,431 250,574	275,715	275,826	275,826	275,826	275,826	275,826	275,826				
2007	72,271	151,506 79,446	96,111	136,527	136,527	136,527	136,527	136,527	136,527					
2008	56,070 30,372	31,122	31,122	31,122	31,122	31,122	31,122	31,122						
2009 2010	67,993	127,233	161,512	161,512	161,512	161,512	161,512							
2011	65,650	77,534	87,731	87,731	87,731	87,731								
2012	22,340	38,269	38,269	38,269	38,269									
2013	71,513	83,494	234,785	234,785										
2014	77,184	82,740	104,340											
2015	48,868	76,478												
2016	50,913													
						λσο	-to-Age Facto	rs						
Accident			26.40	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
Year	12-24	24-36	36-48 1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
1989	1.000 2.299	12.993 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.018	1.447	1.086	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000
1991 1992	1.113	1.284	1.190	1.000	1.546	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000 1.000
1992	2.239	1.470	4.127	1.016	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000	1.000	1.000
1994	1.607	2.898	1.008	0.994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.558	2.242	1.170	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000
1996	1.215	1,356	1.025	1.000	1.000	1,000	1.006	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000
1997	1.996	8.263	1.012	1.000	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.317	1.225	1.446	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	3,322	1.131	1.160	1.154	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.373	1.030	1.089 1.036	1.000 1.090	1.000 1.014	1.000	1.038	1.000	1.000	1.000	1.000	1.000	1.000	1,000
2001	12.887	1.106	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	2.920 1.279	1.647 1.381	1.480	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2003 2004	1.185	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
2005	3.336	1.070	1.108	1,093	1.159	1.132	1.000	1.000	1.000	1.000	1.000			
2006	1.636	1.928	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
2007	2.096	1.654	1.100	1.000	1.000	1.000	1.000	1.000	1.000					
2008	1.417	1.210	1.421	1.000	1.000	1.000	1.000	1.000						
2009	1.025	1.000	1,000	1.000	1.000	1.000	1,000							
2010	1.871	1.269	1.000	1.000	1.000	1.000								
2011	1.181	1.132	1.000	1.000	1.000									
2012	1.713	1.000	1.000	1.000										
2013	1.168	2.812	1.000											
2014	1.072	1.261												
2015	1.565													
									4.000	1.000	1.000	1.000	1.000	1.000
Ali Yr Vol	1.981	1.653	1.145	1.025	1.014	1.008	1.006	1.000	1.000	1.000 1,000	1.000	1.000	1.000	1.000
All Yr Voi Ex. H/L	1.658	1.616	1.077	1.019	1.010	1,000	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol	1.474	1.464	1.066	1.013	1.021	1,015	1.011 1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol Ex. H/L	1.406	1.338	1.039	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Voi	1.256	1.531	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Vol Ex. H/L	1.277	1.230	1,000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 Yr Vol	1.229	1.845 1.450	1.000 1.090	1.000	1.008	1.008	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Prior	1.580	1,450	1.050	1.013	2.000						_	,	4 000	1.000
Selected	1.580	1,430	1.080	1.013	1.008	1.008	1.005	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000 1.000
LDFs	2.524	1.598	1.117	1.034	1.021	1.013	1.005	1.000	1.000	1.000	1.000 100.0%	1.000 100.0%	100.0%	100.0%
% Paid	39.6%	62.6%	89.5%	95.7%	97.9%	98.7%	99.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.070	200.074
, o i aid														

Miami Valley Risk Management Association Auto Liability (AB, AD) December 31, 2016 Paid Loss at \$500K SIR

Accident Year 1989 1990 1991 1993 1994 1995 1996 1997	180 111,919 18,683 13,946 39,293 329,494 126,181 157,537 75,097 572,332 98,687	192 111,919 18,683 13,946 39,293 329,494 126,181 157,537 75,097 572,332 98,687	204 111,919 18,683 13,946 39,293 329,494 126,181 157,537 75,097 572,332 98,687	216 111,919 18,683 13,946 39,293 329,494 126,181 157,537 75,097 572,332 98,687	228 111,919 18,683 13,946 39,293 329,494 126,181 157,537 75,097 572,332 98,687	240 111,919 18,683 13,946 39,293 329,494 126,181 157,537 75,097 572,332	Maturity (Age 252 111,919 18,683 13,946 39,293 329,494 126,181 157,537 75,097	in Months) 264 111,919 18,683 13,946 39,293 329,494 126,181 157,537	276 111,919 18,683 13,946 39,293 329,494 126,181	288 111,919 18,683 13,946 39,293 329,494	300 111,919 18,683 13,946 39,293	312 111,919 18,683 13,946	324 111,919 18,683	336 111,919
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	203,725 81,660 555,168 167,747	203,725 81,660 555,168	203,725 81,660	203,725	29,007									
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-216 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Age 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	10-Age Facto 252-264	rs 264-276 1.000 1.000 1.000 1.000 1.000 1.000 1.000	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-336 1.000	336-Ult
All Yr Voi All Yr Voi Ex. H/L 10 Yr Voi 10 Yr Voi Ex. H/L 5 Yr Voi Ex. H/L 3 Yr Voi Prior	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000	1.000	
Selected LDFs % Paid	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100,0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1,000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1,000 1,000 100.0%

Miami: Valley Risk Management Association Auto Liability (AB, AD) December 31, 2016 Incurred Loss per Reported Claim at \$500K SIR

						incurred Lo	oss per Repor	ted Claim at	\$500K SIR					
Accident							Maturity (Age	in Months)						
Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168
1989	212	205	2,603	2,603	2,603	2,603	2,603	2,603	2,603	2,603	2,603	2,603	2,603	2,603
1990	317	566	566	566	566	566	566	566	566	566	566	566	566	566
	388	363	618	536	536	536	536	536	536	536	536	536	536	536
1991														
1992	560	552	825	966	1,058	1,034	1,034	1,034	1,034	1,034	1,034	1,034	1,034	1,034
1993	1,744	4,779	5,615	5,677	5,492	5,492	5,492	5,492	5,492	5,492	5,492	5,492	5,492	5,492
1994	913	2,152	1,749	1,764	1,753	1,753	1,753	1,753	1,753	1,753	1,753	1,753	1,753	1,753
1995	1,820	1,757	1,950	1,853	1,853	1,853	1,853	1,853	1,853	1,853	1,853	1,853	1,853	1,853
1996	698	745	730	679	679	672	672	677	659	659	659	659	659	659
1997	2,371	2,859	6,051	5,900	5,900	5,900	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840
1998	1,015	1,084	1,113	1,148	1,148	1,148	1,148	1.148	1.148	1,148	1,148	1,148	1,148	1,148
1999	1,226	1,227	1,368	1,621	1,684	1,684	1,684	1,684	1,684	1,684	1,684	1,684	1,684	1,684
2000	755	772	796	785	785	785	785	785	785	785	785	785	785	785
2001	1,143	5,673	7,554	10,921	9,807	6,217	6,217	6,455	6,455	6,455	6,455	6,455	6,455	6,455
			2,097	2,097	2,097	2,097	2,097	2,097	2,097	2,097	2,097	2,097	2,097	2,097
2002	1,080	2,372												
2003	806	1,167	1,629	1,443	1,443	1,443	1,443	1,443	1,443	1,443	1,443	1,443	1,443	1,443
2004	696	646	575	575	575	575	575	575	575	575	575	575	575	
2005	1,188	1,634	2,003	2,266	2,431	2,662	2,489	2,489	2,489	2,489	2,489	2,489		
2006	1,002	1,199	2,078	2,078	2,078	2,078	2,078	2,078	2,078	2,078	2,078			
2007	969	1,869	2,743	2,813	2,815	2,815	2,815	2,815	2,815	2,815				
2008	1,140	1,177	1,736	1,796	1,796	1,796	1,796	1,796	1,796					
2009	699	546	546	546	546	546	546	546	-,					
2010	1,413	1,759	2,071	2,071	2,071	2,071	2,071	5 10						
	1,413			1,186	1,186	1,186	2,071							
2011		1,551	1,186			1,100								
2012	894	750	736	736	736									
2013	2,526	2,359	5,104	5,104										
2014	1,199	1,157	1,338											
2015	1,765	1,500												
2016	1,307													
	-,													
Accident						Age	to-Age Facto	rs						
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1989	0.966	12.691	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.785	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000
1991	0.936	1.703	0.868	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1992	0.987	1.493	1.171	1.095	0.977	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000
1993	2.741	1.175	1.011	0.967	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1994	2.357	0.813	1.008	0.994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	0.965	1.110	0.950	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
1996	1.067	0.980	0.930	1.000	0.991	1.000	1.006	0.974	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.206	2.116	0.975	1.000	1.000	0.990	1.000	1.000	1.000	1,000	1.000	1,000	1.000	1.000
				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.068	1.027	1.031											
1999	1.001	1.115	1.185	1.039	1,000	1.000	1.000	1.000	1.000	1,000	1.000	1,000	1.000	1.000
2000	1.023	1.031	0.987	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	4.961	1.332	1.446	0.898	0.634	1.000	1.038	1.000	1.000	1.000	1,000	1.000	1.000	1.000
2002	2.196	0.884	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1.447	1.396	0.886	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2004	0.928	0.889	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
2005	1.376	1.226	1.131	1.073	1.095	0.935	1.000	1.000	1.000	1.000	1.000			
2006	1.197	1,733	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	2.000			
									1.000	1,000				
2007	1.928	1.468	1.026	1.000	1.000	1.000	1.000	1.000	1.000					
2008	1.032	1.475	1.035	1.000	1.000	1.000	1.000	1.000						
2009	0.782	1.000	1.000	1.000	1.000	1.000	1.000							
2010	1.245	1.177	1.000	1.000	1.000	1,000								
2011	1.316	0.764	1.000	1.000	1.000									
2012	0.840	0.981	1.000	1.000										
2013	0.934	2,164	1.000											
2014	0.965	1.156												
2015	0.849	1.130												
2015	0.849													
							4 000		4 000	4 000	4 000	4.000	4 505	4 000
All Yr Avg	1.411	1.688	1.026	1.003	0.987	0.997	1.002	0.999	1.000	1.000	1.000	1.000	1.000	1.000
All Yr Avg Ex. H/L	1,294	1.269	1.014	1.003	0.998	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Avg	1.109	1.314	1.019	1.007	1.009	0.994	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Avg Ex. H/L	1.047	1.277	1.008	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Avg	0.981	1.248	1.000	1,000	1.000	1.000	1.000	1.000	1,000	1,000	1,000	1.000	1.000	1.000
5 Yr Avg Ex. H/L	0.916	1.105	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 Yr Avg	0.916	1.434	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000
Prior	1.150	1,280	1.015	1.003	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	1.100	1.260	1.015	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000
LDFs	1.411	1.283	1.018	1.003	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
% Incurred	70.9%	78.0%	98.2%	99.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Miami Valley Risk Management Association Auto Liability (AB, AD) December 31, 2016 Incurred Loss per Reported Clairn at \$500K SIR

						ilicult ed Eos	a per nepore							
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	180 2,603 566 536 1,034 5,492 1,753 1,853 659 5,840 1,684 785 6,455 2,097	192 2,603 566 536 1,034 5,492 1,753 1,853 659 5,840 1,148 1,684 785 6,455	204 2,603 566 536 1,034 5,492 1,753 1,853 659 5,840 1,148 1,684 785	216 2,603 566 536 1,034 5,492 1,753 1,853 659 5,840 1,148 1,684	228 2,603 556 536 1,034 5,492 1,753 1,853 659 5,840 1,148	240 2,603 566 536 1,034 5,492 1,753 1,853 659 5,840	faturity (Age i 252 2,603 566 536 1,034 5,492 1,753 1,853 659	264 2,603 566 536 1,034 5,492 1,753 1,853	276 2,603 556 536 1,034 5,492 1,753	288 2,603 566 536 1,034 5,492	300 2,603 566 536 1,034	312 2,603 566 536	324 2,603 566	336 2,603
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-216 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Age 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	-to-Age Facto 252-264	rs 264-276 1.000 1.000 1.000 1.000 1.000 1.000	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-374 1.000 1.000	324-336 1.000	336-Ult
All Yr Avg All Yr Avg Ex. H/L 10 Yr Avg 10 Yr Avg Ex. H/L 5 Yr Avg 5 Yr Avg Ex. H/L 3 Yr Avg Prior	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1,000 1,000 1,000 1,000 1,000	1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000	1.000 1.000 1.000 1.000	1.000	1.000	
Selected LDFs % Incurred		1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1,000 1,000 100.0%

Miami Valley Risk Management Association Auto Itability (AB, AD) December 31, 2016 Paid Loss per Closed Claim at \$500K SIR

						M	laturity (Age i	n Months)						
Accident	12	24	36	48	60	72	84	96	108	120	132	144	156	168
Year 1989	210	205	2,603	2,603	2,603	2,603	2,603	2,603	2,603	2,603	2,603	2,603	2,603 566	2,603 566
1990	301	566	566	566	566	566	566	566	566	566	566 536	566 536	536	536
1991	415	370	535	536	536	536	536	536	536 1,034	536 1,034	1,034	1,034	1,034	1,034
1992	498	475	610	687	706	1,034	1,034 5,492	1,034 5,492	5,492	5,492	5,492	5,492	5,492	5,492
1993	645	1,009	1,403	5,494	5,492	5,492 1,753	1,753	1,753	1,753	1,753	1,753	1,753	1,753	1,753
1994	520	668	1,749	1,764 1,853	1,753 1,853	1,853	1,853	1,853	1,853	1,853	1,853	1,853	1,853	1,853
1995	803	834 502	1,642 668	679	679	672	672	677	659	659	659	659	659	659
1996	502 413	736	6,017	5,900	5,900	5,900	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840
1997 1998	613	688	813	1,148	1,148	1,148	1,148	1,148	1,148	1,148	1,148	1,148	1,148 1,684	1,148 1,684
1999	386	1,202	1,301	1,483	1,684	1,684	1,684	1,684	1,684	1,684 785	1,684 785	1,684 785	785	785
2000	646	706	728	785	785	785	785	785 6,455	785 6,455	6,455	6,455	6,455	6,455	6,455
2001	512	5,553	5,626	5,761	6,277	6,217	6,217 2,097	2,097	2,097	2,097	2,097	2,097	2,097	2,097
2002	634	1,340	2,097	2,097 1,443	2,097 1,443	2,097 1,443	1,443	1,443	1,443	1,443	1,443	1,443	1,443	1,443
2003	646	744	1,010 575	575	575	575	575	575	575	575	575	575	575	
2004	662 672	588 1,526	1,651	1,810	1,980	2,269	2,489	2,489	2,489	2,489	2,489	2,489		
2005 2006	854	1,109	2,078	2,078	2,078	2,078	2,078	2,078	2,078	2,078	2,078			
2007	881	1,612	2,557	2,813	2,815	2,815	2,815	2,815	2,815	2,815				
2008	950	1,059	1,281	1,796	1,796	1,796	1,796	1,796	1,796					
2009	596	546	546	546	546	546	546	546						
2010	1,115	1,652	2,071	2,071	2,071	2,071	2,071							
2011	995	1,077	1,186	1,186	1,186 736	1,186								
2012	573	750	736	736 5,104	/30									
2013	1,933	1,855 1,075	5,104 1,338	3,104										
2014 2015	1,135 1,136	1,500	1,350											
2016	1,083	1,500												
2020	_,						to Ago Englo	re						
Accident				10.00	60-72	72-84	-to-Age Facto 84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
Year	12-24	24-36	36-48 1.000	48-60 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
1989	0.976	12.691 1.000	1.000	1.000	1.000	1,000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.881 0.891	1.447	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000
1991 1992	0.954	1.284	1.126	1.028	1.465	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1,000
1993	1,563	1,391	3.917	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000 1.000	1.000	1.000
1994	1.286	2.616	1.008	0.994	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000
1995	1.039	1.969	1.129	1.000	1.000	1.000	1.000	1.000 0.974	1.000	1.000	1.000	1.000	1.000	1.000
1996	0.999	1.331	1.016	1.000	0.991	1.000 0.990	1.006 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.781	8.175	0.981	1,000 1,000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.122	1.181	1.412 1.140	1.135	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	3,114 1.093	1.082 1.030	1.079	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000 2001	10.852	1.013	1.024	1,090	0.990	1.000	1.038	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000 1.000
2002	2.113	1.564	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000	1.000	1.000
2003	1.152	1.357	1.429	1.000	1.000	1.000	1.000	1.000 1.000	1.000	1,000 1,000	1.000	1.000	1,000	
2004	0.889	0.977	1.000	1.000	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000			
2005	2.272	1.082	1.096	1.093	1.146 1.000	1.097 1.000	1.000	1.000	1.000	1.000				
2006	1.299	1.873	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000					
2007 2008	1.829 1.115	1.586 1.210	1.100 1.402	1.000	1.000	1.000	1.000	1.000						
2008	0.917	1.000	1.000	1.000	1.000	1.000	1.000							
2009	1.482	1.253	1.000	1.000	1.000	1.000								
2011	1.083	1.101	1.000	1.000	1.000									
2012	1.310	0.981	1.000	1.000										
2013	0.960	2.751	1.000											
2014	0.947	1.245												
2015	1.320													
										4 ***	4 000	1.000	1.000	1.000
All Yr Avg	1.713	2.084	1.195	1.014	1.026	1.004	1.002	0.999	1.000	1.000	1.000 1.000	1.000	1.000	1.000
All Yr Avg Ex. H/L	1.380	1.688	1.085	1.010	1.007	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Avg	1,226	1.408	1.060	1.009	1.015	1.010	1.004	1.000 1.000	1.000 1.000	1.000 1.000	1.000	1.000	1.000	1.000
10 Yr Avg Ex. H/L	1.189	1.294	1.025	1.000	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Avg	1.124	1.466	1.000	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000
5 Yr Avg Ex. H/L	1,118	1.200	1.000	1,000 1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 Yr Avg	1.075	1.659 1.300	1.005	1,000	1.006	1.004	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Prior	1.280	1.500	1.003	1,000						,	4 000	1 000	1.000	1.000
Selected	1.300	1.290	1.070	1.007	1.006	1.004	1.001	1.000	1.000	1.000	1.000	1.000 1.000	1.000	1.000
LDFs	1.827	1.405	1.089	1.018	1.011	1.005	1.001	1.000	1.000 100.0%	1.000 100.0%	1.000 100.0%	100.0%	100.0%	100.0%
% Incurred	54.7%	71.2%	91.8%	98.2%	98.9%	99.5%	99.9%	100.0%	100.0%	T00.0%	100.0%	100.074	0,0,0	

Miami Valley Risk Management Association Auto Liability (AB, AD) December 31, 2016 Paid Loss per Closed Claim at \$500K SIR

						Paid Los	ss per Closed	Claim at \$50	OK SIR					
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	180 2,603 566 536 1,034 5,492 1,753 1,853 659 5,840 1,148 1,684 785 6,455 2,097	192 2,603 566 536 1,034 5,492 1,753 1,853 659 5,840 1,148 1,684 785 6,455	204 2,603 556 536 1,034 5,492 1,753 1,853 659 5,840 1,148 1,684 785	216 2,603 566 536 1,034 5,492 1,753 1,853 659 5,840 1,148 1,684	228 2,603 566 516 1,034 5,492 1,753 1,853 659 5,840 1,148	240 2,603 566 536 1,034 5,492 1,753 1,853 659 5,840	Maturity (Age 252 2,603 566 536 1,034 5,492 1,753 1,853 659	in Months) 264 2,603 566 536 1,034 5,492 1,753 1,853	276 2,603 566 536 1,034 5,492 1,753	288 2,603 566 536 1,034 5,492	300 2,603 566 536 1,034	312 2,603 566 536	324 2,603 566	336 2,603
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-216 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Age 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	-to-Age Facto 252-264 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	rs 264-276 1.000 1.000 1.000 1.000 1.000 1.000 1.000	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-336 1.000	336-Ult
All Yr Avg All Yr Avg Ex. H/L 10 Yr Avg 10 Yr Avg Ex. H/L 5 Yr Avg 5 Yr Avg Ex. H/L 3 Yr Avg Prior	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1,000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000	1.000 1.000 1.000 1.000	1.000	1.000	
Selected LDFs % Incurred	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1,000 1,000 100,0%

Summary of Claim Counts

Accident Year	Closed Claims	Open Claims	Reported Claims	Indicated IBNR Claims	Selected Ultimate Claims
(1)	(2)	(3)	(4)	(5)	(6)
					42
1989	43	0	43	0	43
1990	33	0	33	0	33
1991	26	0	26	0	26
1992	38	0	38	0	38
1993	60	0	60	0	60
1994	72	0	72	0	72
1995	85	0	85	0	85
1996	114	0	114	0	114
1997	98	0	98	0	98
1998	86	0	86	0	86
1999	121	0	121	0	121
2000	104	0	104	0	104
2001	86	0	86	0	86
2002	80	0	80	0	80
2003	117	0	117	0	117
2004	86	0	86	0	86
2005	98	0	98	0	98
2006	70	0	70	0	70
2007	98	0	98	0	98
2008	76	0	76	0	76
2009	57	0	57	0	57
2010	78	0	78	0	78
2011	74	0	74	0	74
2012	52	0	52	0	52
2013	46	0	46	0	46
2013	78	0	78	0	78
2014	51	0	51	0	51
	47	22	69	5	74
2016	4/	22	03		
Total	2,074	22	2,096	5	2,101

Notes:

(2)-(4) Provided by MVRMA

(5) = (6) - (4)

(6) From Exhibit 20, Col (4)

Ultimate Claims Based on Reported Claim Development Method

	Cumulative	Claim	Projected
Accident	Reported	Development	Ultimate
Year	Claims	Factors	Claims
(1)	(2)	(3)	(4)
			42
1989	43	1.000	43
1990	33	1.000	33
1991	26	1.000	26
1992	38	1.000	38
1993	60	1.000	60
1994	72	1.000	72
1995	85	1.000	85
1996	114	1.000	114
1997	98	1.000	98
1998	86	1.000	86
1999	121	1.000	121
2000	104	1.000	104
2001	86	1.000	86
2002	80	1.000	80
2003	117	1.000	117
2004	86	1.000	86
2005	98	1.000	98
2006	70	1.000	70
2007	98	1.000	98
2008	76	1.000	76
2009	57	1.000	57
2010	78	1.000	78
2011	74	1.000	74
2012	52	1.000	52
2013	46	1.000	46
2014	78	1.000	78
2015	51	1.005	51
2016	69	1.075	74
T. A.d.	2,096		2,101
Total	2,050		,

- (2) Provided by MVRMA
- (3) From Exhibit 21
- (4) = $(2) \times (3)$

Reported Claim Counts

							Reported Cla	aim Counts						
Accident							Maturity (Age	in Months)						
Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168
1989	42	42	43	43	43	43	43	43	43	43	43		43	43
1990	32	33	33	33	33	33	33	33	33	33	33	33	33	33
1991	23	25	26	26	26	26	26	26	25	26	26	26	26	26
1992	35	36	38	38	38	38	38	38	38	38	38		38	38
1993	54	60	60	60	60	60	60	60	60	60	60		60	60
1994	68	72	72	72	72	72	72	72	72	72	72	72	72	72
1995	80	80	85	85	85	85	85	85	85	85	85	85	85	85
1996	99	109	110	110	110	111	111	111	114	114	114	114	114	114
1997	96	96	97	97	97	97	98	98	98	98	98	98	98	98
1998	83	86	86	86	86	86	86	86	86	86	86	86	86	86
1999	111	113	120	121	121	121	121	121	121	121	121	121	121	121
2000	101	104	104	104	104	104	104	104	104	104	104	104	104	104
2001	82	85	86	86	86	86	86	86	86	86	86	86	86	86
2002	68	79	80	80	80	80	80	80	80	80	80	80	80	80
2003	108	116	117	117	117	117	117	117	117	117	117	117	117	117
2004	73	85	86	86	86	86	86	86	86	86	86	86	86	
2005	85	96	97	97	97	98	98	98	98	98	98	98		
2006	65	70	70	70	70	70	70	70	70	70	70			
2007	89	97	99	98	98	98	98	98	98	98				
2008	70	76	76	76	76	76	76	76	76					
2009	56	57	57	57	57	57	57	57						
2010	75	78	78	78	78	78	78							
2011	73	74	74	74	74	74								
2012	45	51	52	52	52									
2013	42	46	46	46										
2014	74	78	78											
2015	49	51												
2016	69													
Accident						Age	e-to-Age Facto	ors						
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1989	1.000	1.024	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.031	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.087	1.040	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
1992	1.029	1.056	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1993	1.111	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1994	1.059	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.063	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.101	1.009	1.000	1.000	1.009	1.000	1.000	1.027	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.010	1.000	1.000	1.000	1,010	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.036	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.018	1,062	1.008	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.030	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.037	1,012	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.162	1.013	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000
2003	1.074	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2004	1.164	1.012	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000		
2005	1.129	1.010	1,000	1.000	1.010	1.000	1.000	1.000	1.000	1.000	1.000			
2006	1.077	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1,000	1.000				
2007	1.090	1.021	0,990	1.000	1.000	1.000	1.000	1,000	1.000					
2008	1.086	1.000	1.000	1.000	1.000	1.000	1.000	1.000						
2009	1.018	1.000	1.000	1.000	1.000	1.000	1.000							
2010	1.040	1.000	1.000	1.000	1.000	1.000								
2011	1.014	1.000	1.000	1.000	1.000									
2012	1.133	1.020	1.000	1.000										
2013	1.095	1.000	1.000											
2014	1.054	1.000	21000											
2015	1.041	2.000												
1010	1.0.11													
All Yr Vol	1.062	1.013	1.000	1.000	1.001	1.001	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000
All Yr Vol Ex. H/L	1.062	1.013	1.000	1.000	1.001	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol	1.063	1.012	0.999	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol Ex. H/L		1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	1.063	1.004	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1,000	1.000
5 Yr Vol	1.060	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000
5 Yr Vol Ex. H/L	1.061		1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
3 Yr Vol	1.061 1.080	1.006 1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Prior	1.080	1.00/	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	_,000
Calacted	1 070	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000
Selected	1.070	1,005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
LDFs	1.075				100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100,0%	100.0%	100.0%
% Developed	93.0%	99.5%	100.0%	100.0%	100.0%	100.0%	200.0%	100.076	100.070	100.070	100.070	100,078	100.070	200.070

Reported Claim Counts

Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	180 43 33 26 38 60 72 85 114 44 98 86 121 104 86 80	192 43 33 26 38 60 72 85 5114 98 86 6121 104 86	204 43 33 26 38 500 72 85 114 98 86 121 104	216 43 33 26 38 60 72 85 114 98 86 121	228 43 33 26 38 60 72 85 114 98 86	240 43 33 26 38 60 72 85 114 98	Maturity (Age 252 43 33 26 38 60 72 85 114	e in Months) 264 43 33 26 38 60 72 85	276 43 33 26 38 60 72	288 43 33 26 38 60	300 43 33 26 38	312 43 33 26	324 43 33	336 43
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-216 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Age 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	e-to-Age Factc 252-264 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	264-275 1.000 1.000 1.000 1.000 1.000 1.000 1.000	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-336 1.000	336-Ult
All Yr Vol All Yr Vol Ex. H/L 10 Yr Vol 10 Yr Vol Ex. H/L 5 Yr Vol 5 Yr Vol Ex. H/L 3 Yr Vol Prior	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000	1,000	1.000	
Selected LDFs % Developed	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100,0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1,000 100.0%

Closed Claim Counts

Accident							laturity (Age i	n Months)		400	122	144	156	168
Year	12	24	36	48	60	72	84	96	108	120	132 43	43	43	43
1989	41	42	43	43	43	43	43	43	43 33	43 33	33	33	33	33
1990	27	33	33	33	33	33	33	33 26	26	26	26	26	26	26
1991	21	24	24	26	26	26 38	26 38	38	38	38	38	38	38	38
1992	30	35	35	37	36	58 60	60	60	60	60	60	60	60	60
1993	37	53	56	59	60 72	72	72	72	72	72	72	72	72	72
1994	52	65	72	72 8 5	72 85	85	85	85	85	85	85	85	8 5	85
1995	48	72	82	110	110	111	111	111	114	114	114	114	114	114
1996	88	107 93	109 94	97	97	97	98	98	98	98	98	98	98	98
1997	83	93 81	94 84	86	86	86	86	86	86	86	86	86	86	86
1998	69 105	112	117	119	121	121	121	121	121	121	121	121	121	121
1999	82	103	103	104	104	104	104	104	104	104	104	104	104	104
2000	64	76	83	84	84	86	86	86	86	86	86	86	86	86
2001 2002	55	76	80	80	80	80	80	80	80	80	80	80	80	80 117
2002	100	111	113	117	117	117	117	117	117	117	117	117	117 86	11/
2004	63	84	86	86	86	86	86	86	86	86	86	86 98	86	
2005	64	94	93	94	94	95	98	98	98	98	98 70	90		
2006	54	68	70	70	70	70	70	70	70	70 98	70			
2007	82	94	98	98	98	98	98	98	98 76	98				
2008	59	75	75	76	76	76	76	76 57	76					
2009	51	57	57	57	57	57	57	57						
2010	61	77	78	78	78	78	78							
2011	66	72	74	74	74	74								
2012	39	51	52	52	52									
2013	37	45	46	46										
2014	68	77	78											
2015	43	51												
2016	47													
						Age-	to-Age Facto	rs						
Accident	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
Year	1.024	1.024	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1989 1990	1.222	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000 1.000
1991	1.143	1.000	1.083	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.167	1.000	1.057	0.973	1.056	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1993	1.432	1.057	1.054	1.017	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000 1.000	1.000	1.000
1994	1.250	1.108	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000
1995	1.500	1.139	1.037	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000
1996	1.216	1.019	1.009	1.000	1.009	1.000	1.000	1.027	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.120	1,011	1.032	1.000	1.000	1.010	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.174	1.037	1.024	1.000	1.000	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.067	1.045	1.017	1.017	1.000	1,000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
2000	1.256	1.000	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.188	1.092	1.012	1.000 1.000	1.024 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.382	1.053	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2003	1.110	1.018	1.035 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
2004	1.333	1.024 0.989	1.011	1.000	1.011	1.032	1.000	1.000	1.000	1.000	1.000			
2005	1.469 1.259	1.029	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
2006 2007	1.146	1.043	1,000	1.000	1.000	1.000	1.000	1.000	1.000					
2007	1.271	1.000	1.013	1.000	1.000	1.000	1.000	1.000						
2009	1.118	1.000	1.000	1.000	1.000	1.000	1.000							
2010	1.262	1.013	1.000	1.000	1.000	1.000								
2011	1.091	1.028	1.000	1.000	1.000									
2012	1.308	1.020	1.000	1.000										
2013	1.216	1.022	1.000											
2014	1.132	1.013												
2015	1.186													
						4 000	1 000	1.002	1.000	1.000	1.000	1.000	1.000	1.000
All Yr Vol	1.213	1.031	1.014	1.001	1.003	1.002	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000
All Yr Vol Ex. H/L	1.209	1.029	1.013	1.001	1.002	1.001 1.004	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol	1.191	1.015	1.003	1.000	1.001	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol Ex. H/L	1.196	1.015	1.002	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Vol	1.170	1.019	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Voi Ex. H/L	1.169	1.017	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 Yr Vol	1.169	1.017	1.000	1.000	1.000	_1000								

Closed Claim Counts

Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2015 2016	180 43 33 26 98 60 72 85 114 98 86 121 104 86 80	192 43 38 60 72 85 51 114 98 86 121 104 86	204 43 33 26 60 72 85 114 98 86 121 104	216 43 33 26 60 72 85 114 98 86 61 121	228 43 33 26 60 72 85 114 98 86	240 43 33 26 60 72 85 114 98	Maturity (Age 252 43 33 26 60 72 28 5114	in Months) 264 43 33 26 38 60 72 85	276 43 33 26 38 60 72	288 43 32 26 38 60	300 43 33 26 38	312 43 33 26	324 43 33	336 43
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-216 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Age 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000	-to-Age Facto 252-264 1.000 1.000 1.000 1.000 1.000 1.000 1.000	rs 264-276 1.000 1.000 1.000 1.000 1.000 1.000	276-288 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-336 1.000	336-Ult
All Yr Vol All Yr Vol Ex. H/L 10 Yr Vol 10 Yr Vol Ex. H/L 5 Yr Vol 5 Yr Vol Ex. H/L 3 Yr Vol	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000	1.000	1.000	1.000	

》 Pinnacle Actuarial Resources, Inc.

Miami Valley Risk Management Association Auto Liability (AB, AD) December 31, 2016

Loss Summary

oles	Paid	(10)																		\$48,974	76,272	46,288	30,922	43,334	42,561	23,843	40,752	65,132	49,388	39,051	\$506,517
Deductibles	Incurred	(6)																		\$48,974	76,272	46,288	30,922	43,334	42,561	23,843	40,752	65,132	49,388	59,301	\$526,767
nits	Paid	(8)	\$111,919	18,683	13,946	39,293	329,494	126,181	157,537	75,097	572,332	28,687	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,527	31,122	161,512	87,731	38,269	234,785	104,340	76,478	50,913	\$4,356,657
\$500K Limits	Incurred	(7)	\$111,919	18,683	13,946	39,293	329,494	126,181	157,537	75,097	572,332	28,687	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,527	31,122	161,512	87,731	38,269	234,785	104,340	76,478	90,163	\$4,395,907
imits	Paid	(9)	\$111,919	18,683	13,946	39,293	329,494	126,181	157,537	75,097	572,332	289'86	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,527	31,122	161,512	87,731	38,269	234,785	104,340	76,478	50,913	\$4,356,657
Retention Limits	Incurred	(5)	\$111,919	18,683	13,946	39,293	329,494	126,181	157,537	75,097	572,332	98,687	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,527	31,122	161,512	87,731	38,269	234,785	104,340	76,478	90,163	\$4,395,907
nits	Paid	(4)	\$111,919	18,683	13,946	39,293	329,494	126,181	157,537	75,097	1,018,826	98,687	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,527	31,122	161,512	87,731	38,269	234,785	104,340	76,478	50,913	\$4,803,151
Total Limits	Incurred	(3)	\$111,919	18,683	13,946	39,293	329,494	126,181	157,537	75,097	1,018,826	28,687	203,725	81,660	555,168	167,747	168,870	49,417	243,966	145,431	275,826	136,527	31,122	161,512	87,731	38,269	234,785	104,340	76,478	90,163	\$4,842,401
	Retention	(2)	\$250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	200,000	200,000	200,000	200,000	200,000	200,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	
Accident	Year	(1)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total

Notes: (2)-(10) Provided by MVRMA

Summary of Loss Reserve Estimates **Retained Limits**

Accident Year (1)	Selected Ultimate Loss (2)	Incurred Loss (3)	Paid Loss (4)	Case Reserves (5)	Indicated IBNR (6)	Estimated Total Reserves (7)
(-)	\-/	(-)	(')	(-)	(-)	()
1989	\$207,853	\$207,853	\$207,853	\$0	\$0	\$0
1990	439,863	439,863	439,863	0	0	0
1991	84,015	84,015	84,015	0	0	0
1992	139,376	139,376	139,376	0	0	0
1993	600,979	600,979	600,979	0	0	0
1994	106,065	106,065	106,065	0	0	0
1995	156,790	156,790	156,790	0	0	0
1996	357,926	357,926	357,926	0	0	0
1997	706,526	706,526	706,526	0	0	0
1998	554,289	554,289	554,289	0	0	0
1999	657,094	657,094	657,094	0	0	0
2000	164,560	164,560	164,560	0	0	0
2001	497,423	497,423	497,423	0	0	0
2002	1,347,177	1,347,177	1,347,177	0	0	0
2003	269,762	269,762	269,762	0	0	0
2004	511,964	511,964	511,964	0	0	0
2005	857,801	857,801	857,801	0	0	0
2006	915,795	915,795	915,795	0	0	0
2007	312,120	312,120	312,120	0	0	0
2008	856,672	856,672	856,672	0	0	0
2009	1,177,813	1,177,813	1,177,813	0	0	0
2010	972,613	972,613	972,613	0	0	0
2011	351,000	337,771	316,697	21,074	13,229	34,303
2012	470,000	406,294	281,284	125,010	63,706	188,716
2013	730,000	595,409	536,112	59,296	134,591	193,888
2014	1,370,000	947,515	375,369	572,146	422,485	994,631
2015	760,000	205,275	129,660	75,615	554,725	630,340
2016	820,000	95,425	65,365	30,060	724,575	754,635
Total	\$16,395,476	\$14,482,164	\$13,598,964	\$883,200	\$1,913,311	\$2,796,512

Notes:

(2) From Exhibit 3, Col (13) (3)-(5) Provided by MVRMA (6) = (2) - (3)

(7) = (5) + (6)

Comparison of Ultimate Loss to Prior Ultimate Loss Retained Limits

	Selected	Selected		
	Ultimate	Ultimate		
Accident	Loss	Loss		Percent
Year	@12/31/2015_	@12/31/2016_	Difference	Change
(1)	(2)	(3)	(4)	(5)
			t -	0.00/
1989	\$207,853	\$207,853	\$0	0.0%
1990	439,863	439,863	0	0.0%
1991	84,015	84,015	0	0.0%
1992	139,376	139,376	0	0.0%
1993	600,979	600,979	0	0.0%
1994	106,065	106,065	0	0.0%
1995	156,790	156,790	0	0.0%
1996	357,926	357,926	0	0.0%
1997	706,526	706,526	0	0.0%
1998	554,289	554,289	0	0.0%
1999	657,094	657,094	0	0.0%
2000	164,560	164,560	0	0.0%
2001	497,423	497,423	0	0.0%
2002	1,347,177	1,347,177	0	0.0%
2003	269,762	269,762	0	0.0%
2004	511,964	511,964	0	0.0%
2005	857,801	857,801	0	0.0%
2006	915,795	915,795	0	0.0%
2007	312,120	312,120	0	0.0%
2008	856,672	856,672	0	0.0%
2009	1,177,813	1,177,813	0	0.0%
2010	972,613	972,613	0	0.0%
2011	345,000	351,000	6,000	1.7%
2012	540,000	470,000	(70,000)	-13.0%
2013	610,000	730,000	120,000	19.7%
2014	1,000,000	1,370,000	370,000	37.0%
2015	830,000	760,000	(70,000)	-8.4%
_010	,	•		
Total	\$15,219,475	\$15,575,476	\$356,000	2.3%

- (2) From Pinnacle's analysis of unpaid loss & LAE at 12/31/2015
- (3) From Exhibit 3, Col (13)
- (4) = (3) (2)
- (5) = (4)/(2)

Miami Valley Risk Management Association General Liability December 31, 2016

Selected Ultimate Loss Retained Limits

		5	 	2) (13)	\$207,853 \$207,853	439,863 439,863		139,376 139,376	676,009 676,009	106,065 106,065						_	~	_									_		_	Ц.		925,003 820,000	\$16,236,009 \$16,395,476	
2	- Pe	BF BF	Σ p ₀	(11) (12)	\$207,853 \$2			139,376	_		156,790							τí						-1	-, L				•1		•	910,639	\$16,555,582 \$16,	
MVRMA	Expected	Loss	Method	(10)	\$92,203	119,823	139,209	171,057	151,522	244,109	258,399	267,875	338,626	361,527	392,408	416,071	464,759	512,610	563,959	607,337	664,772	988'869	721,207	785,125	856,694	822,942	865,123	841,117	849,528	867,650	894,409	934,330	\$14,903,278	
	Average	Paid	Method	(6)	\$207,853	439,863	84,015	139,376	626'009	106,065	156,790	357,926	706,526	554,289	657,094	164,560	497,423	1,347,177	269,762	511,964	857,801	915,795	315,330	868,625	1,204,966	1,000,690	335,969	353,525	813,915	857,968	679,483	820,421	\$15,826,150	
ent	Average	Incurred	Method	(8)	\$207.853	439.863	84.015	139.376	600.979	106.065	156,790	357,926	706,526	554,289	657,094	164,560	497,423	1,347,177	269,762	511,964	857,801	915,795	312,120	856,672	1,182,945	993,057	346,595	433,585	703,338	1,462,484	676,120	725,244	\$16,267,419	cal (7) cal (7) al (4) bl (8)
MVRMA's Loss Development	Case	Reserve	Method	(7)	\$207.853	439.863	84 015	139 376	600 979	106.065	156,790	357,926	706,526	554,289	657,094	164,560	497,423	1,347,177	269,762	511,964	857,801	915,795	312,120	856,672	1,177,813	972,613	377,386	495,562	688,418	2,074,199	772,973	647,048	\$16,950,062	From Exhibit 10, Col (7) From Exhibit 11, Col (7) From Exhibit 4, Col (4) From Exhibit 4, Col (8) From Exhibit 5, Col (8)
MVRN	Paid	Loss	Method	(9)	\$207.853	730 863	84.015	730 376	600 979	106,065	156.790	357,926	706,526	554,289	657,094	164,560	497,423	1,347,177	269,762	511,964	857,801	915,795	315,429	869,229	1,205,792	1,001,361	332,579	354,468	793,827	889,301	675,801	817,654	\$15,830,701	(8) (9) (10) (11) (12)
	Incurred	Loss	Method	(5)	\$207.853	630 067	459,603	27,001	676,621 600,979	106,065	156 790	357,926	706,526	554,289	657,094	164,560	497,423	1,347,177	269,762	511,964	857,801	915,795	312,120	856,672	1,177,813	996,928	348,639	444,529	742,641	1,536,362	715,618	748,499	\$16,455,079	
elonment	Paid	1.055	Method	(4)	¢207 0E3	550,1024	439,883	84,015	139,376	106.065	156,790	357,926	706.526	554,289	657,094	164,717	498,374	1,352,332	271,830	519,845	884,415	973,503	352,696	990,788	1,401,709	1,208,432	421,027	417,700	975,239	945,723	555,342	906,669	\$16,644,355	
Industry Development	Incurred	1000	Method	(3)	1000	\$20,702\$	439,863	84,UIS	139,376	976,009	106,063	357 976	706 526	554.289	657.094	164.661	498.036	1.350.499	271.094	517.032	874.870	952.603	337.714	942,677	1.321.979	1,118,954	403,748	513,338	833,523	1,598,364	477.864	406,521	\$16,594,252	RMA 1, Col (4) 2, Col (4) Col (4)
			Retention	(2)	0	\$250,000	250,000	250,000	250,000	250,000	250,000	250,000	500,000	200,000	500,000	500.000	200,000	500,000	1 000 000	1,000,000	1 000 000	1,000,000	1 000 000	1,000,000	1 000 000	200,000	500,000	500,000	500.000	200,000	500,000	500,000		Provided by MVRMA From Exhibit 12.1, Col (4) From Exhibit 12.2, Col (4) From Exhibit 7, Col (4) From Exhibit 8, Col (4)
		A contract	Vear	(1)		1989	1990	1991	1992	1993	1994	1995	1990	1997	1999	2000	2002	2002	2002	2003	2005	2002	2002	2007	2002	2010	2011	2012	2013	2014	2015	2016	Total	Notes: (2) (3) (4) (5)

Ultimate Loss Based on Bornhuetter-Ferguson Method Using Exposures and Incurred Loss Retained Limits

	Net							
	Operating	Selected				Cumulative	Projected	Indicated
Accident	Funds	Loss	Expected	Percent	Undeveloped	Incurred	Ultimate	Loss
Year	(\$00,000's)	Cost	Loss	Undeveloped	Loss	Loss	Loss	Cost
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1989	\$561	\$164	\$92,203	0.0%	\$0	\$207,853	\$207,853	\$370
1990	722	166	119,823	0.0%	0	439,863	439,863	609
1991	830	168	139,209	0.0%	0	84,015	84,015	101
1992	1,010	169	171,057	0.0%	0	139,376	139,376	138
1993	1,255	121	151,522	0.0%	0	600,979	600,979	479
1994	1,413	173	244,109	0.0%	0	106,065	106,065	75
1995	1,481	174	258,399	0.0%	0	156,790	156,790	106
1996	1,520	176	267,875	0.0%	0	357,926	357,926	235
1997	1,903	178	338,626	0.0%	0	706,526	706,526	371
1998	2,011	180	361,527	0.0%	0	554,289	554,289	276
1999	2,162	182	392,408	0.0%	0	657,094	657,094	304
2000	2,269	183	416,071	0.0%	0	164,560	164,560	73
2001	2,510	185	464,759	0.0%	0	497,423	497,423	198
2002	2,741	187	512,610	0.0%	0	1,347,177	1,347,177	492
2003	2,985	189	563,959	0.0%	0	269,762	269,762	90
2004	3,183	191	607,337	0.0%	0	511,964	511,964	161
2005	3,450	193	664,772	0.0%	0	857,801	857,801	249
2006	3,591	195	698,886	0.0%	0	915,795	915,795	255
2007	3,669	197	721,207	0.0%	0	312,120	312,120	85
2008	3,954	199	785,125	0.0%	0	856,672	856,672	217
2009	4,058	211	856,694	0.0%	0	1,177,813	1,177,813	290
2010	4,063	203	822,942	2.4%	20,072	972,613	992,685	244
2011	4,229	205	865,123	3.1%	26,968	337,771	364,739	86
2012	4,071	207	841,117	8.6%	72,346	406,294	478,640	118
2013	4,071	209	849,528	19.8%	168,424	595,409	763,832	188
2014	4,117	211	867,650	38.3%	332,547	947,515	1,280,062	311
2015	4,202	213	894,409	71.3%	637,848	205,275	843,123	201
2016	4,346	215	934,330	87.3%	815,214	95,425	910,639	210
Tota!	\$76,376		\$14,903,278		\$2,073,418	\$14,482,164	\$16,555,582	\$217

Notes:

- (2) Provided by MVRMA
 (3) From Exhibit 6.1, Col (8)
- (4) = (2) x (3)
- (5) Based on Exhibit 13;

\$500K limits for 1989-2002 and 2010-2016; \$1M limits for 2003-2009

- (6) = (4) x (5) (7) Provided by MVRMA (8) = (6) + (7) (9) = (8) / (2)

Ultimate Loss Based on Bornhuetter-Ferguson Method Using Exposures and Paid Loss Retained Limits

Accident Year	Net Operating Funds (\$00,000's)	Selected Loss Cost	Expected Loss	Percent Unpaid	Undeveloped Loss	Cumulative Paid Loss (7)	Projected Ultimate Loss (8)	Indicated Loss Cost
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(0)	(5)
1989	\$561	\$164	\$92,203	0.0%	\$0	\$207,853	\$207,853	\$370 609
1990	722	166	119,823	0.0%	0	439,863	439,863 84,015	101
1991	830	168	139,209	0.0%	0	84,015		138
1992	1,010	169	171,057	0.0%	0	139,376	139,376	479
1993	1,255	121	151,522	0.0%	0	600,979	600,979	479 75
1994	1,413	173	244,109	0.0%	0	106,065	106,065	75 106
1995	1,481	174	258,399	0.0%	0	156,790	156,790	
1996	1,520	176	267 , 875	0.0%	0	357,926	357,926	235
1997	1,903	178	338,626	0.0%	0	706,526	706,526	371
1998	2,011	180	361,527	0.0%	0	554,289	554,289	276
1999	2,162	182	392,408	0.0%	0	657,094	657,094	304
2000	2,269	183	416,071	0.0%	0	164,560	164,560	73
2001	2,510	185	464,759	0.0%	0	497,423	497,423	198
2002	2,741	187	512,610	0.0%	0	1,347,177	1,347,177	492
2003	2,985	189	563,959	0.0%	0	269,762	269,762	90
2004	3,183	191	607,337	0.0%	0	511,964	511,964	161
2005	3,450	193	664,772	0.0%	0	857,801	857,801	249
2006	3,591	195	698,886	0.0%	0	915,795	915,795	255
2007	3,669	197	721,207	1.0%	7,565	312,120	319,685	87
2008	3,954	199	785,125	1.4%	11,342	856,672	868,014	220
2009	4,058	211	856,694	2.3%	19,879	1,177,813	1,197,692	295
2010	4,063	203	822,942	2.9%	23,626	972,613	996,239	245
2011	4,229	205	865,123	4.8%	41,313	316,697	358,010	85
2012	4,071	207	841,117	20.6%	173,658	281,284	454,942	112
2013	4,071	209	849,528	32.5%	275,798	536,112	811,910	199
2014	4,117	211	867,650	57.8%	501,419	375 <i>,</i> 369	876,789	213
2015	4,202	213	894,409	80.8%	722,807	129,660	852,467	203
2016	4,346	215	934,330	92.0%	859,638	65,365	925,003	213
Total	\$76,376		\$14,903,278		\$2,637,045	\$13,598,964	\$16,236,009	\$213

Notes:

- (2) Provided by MVRMA
- (3) From Exhibit 6.1, Col (8)
- (4) = (2) \times (3)

(5) Based on Exhibit 13; \$500K limits for 1989-2002 and 2010-2016; \$1M limits for 2003-2009

- (6) = (4) x (5)
- Provided by MVRMA (7)
- = (6) + (7)
- (8) = (6) + (7) (9) = (8) / (2)

Initial Expected Loss Cost Retained Limits

Accident	Net Operating Funds	Initial Ultimate	Indicated Loss Cost	Limits Factor to \$500K	Trend Factor to 2016	Trended \$500K Limits Loss Cost	Expected Loss Cost
Year	(\$00,000's)	Loss (3)	(4)	(5)	(6)	(7)	(8)
(1)	(2)	(5)	(4)	(2)	(0)	(7)	(0)
1989	\$561	\$207,853	\$370	1.000	1.308	\$485	\$164
1990	722	439,863	609	1.000	1.295	789	166
1991	830	84,015	101	1.000	1.282	130	168
1992	1,010	139,376	138	1.000	1.270	175	169
1993	1,255	600,979	479	1.416	1.257	853	121
1994	1,413	106,065	75	1.000	1.245	93	173
1995	1,481	156,790	106	1.000	1.232	130	174
1996	1,520	357,926	235	1.000	1.220	287	176
1997	1,903	706,526	371	1.000	1.208	449	178
1998	2,011	554,289	276	1.000	1.196	330	180
1999	2,162	657,094	304	1.000	1.184	360	182
2000	2,269	164,560	73	1,000	1.173	85	183
2001	2,510	497,423	198	1.000	1.161	230	185
2002	2,741	1,347,177	492	1.000	1.149	565	187
2003	2,985	269,762	90	1.000	1.138	103	189
2004	3,183	511,964	161	1.000	1.127	181	191
2005	3,450	857,801	249	1.000	1.116	277	193
2006	3,591	915,795	255	1.000	1.105	282	195
2007	3,669	312,120	85	1.000	1.094	93	197
2008	3,954	856,672	217	1.000	1.083	235	199
2009	4,058	1,177,813	290	0.950	1.072	296	211
2010	4,063	996,928	245	1.000	1.062	260	203
2011	4,229	348,639	82	1.000	1,051	87	205
2012	4,071	444,529	109	1.000	1.041	114	207
2013	4,071	742,641	182	1.000	1.030	188	209
2014	4,117	1,536,362	373	1.000	1.020	381	211
2015	4,202	715,618	170	1.000	1.010	172	213
2016	4,346	748,499	172	1.000	1.000	172	215
2010	1,5 10	,,					
Total	\$76,376	\$16,455,079	\$215				
10141	4.0,0	+/			Average Ex. Hi/Lo	\$238	
				10-1	Year Weighted Avg	200	
				10-Year Wei	ghted Avg Ex. Hi/Lo	192	
					Year Weighted Avg	205	
				Selec	cted 2016 Loss Cost	\$215	

- (2) Provided by MVRMA
 (3) From Exhibit 6.2, Col (5)
- (4) (5)
- = (3) / (2) From Exhibit 6.3, Col (7)
- Based on selected trend of 1.0% (6)
- $= (4) \times (5) \times (6)$ (7)
- (8) = Selected Loss Cost / [(6) x (5)]

Initial Selected Ultimate Loss **Retained Limits**

				Initial
Accident	Projecte	ed Ultimate Loss Bas	ed on	Ultimate
Year	Incurred	Paid	Case	Loss
(1)	(2)	(3)	(4)	(5)
1989	\$207,853	\$207,853	\$207,853	\$207,853
1990	439,863	439,863	439,863	439,863
1991	84,015	84,015	84,015	84,015
1992	139,376	139,376	139,376	139,376
1993	600,979	600,979	600,979	600,979
1994	106,065	106,065	106,065	106,065
1995	156,790	156,790	156,790	156,790
1996	357,926	357,926	357,926	357,926
1997	706,526	706,526	706,526	706,526
1998	554,289	554,289	554,289	554,289
1999	657,094	657,094	657,094	657,094
2000	164,560	164,560	164,560	164,560
2001	497,423	497,423	497,423	497,423
2002	1,347,177	1,347,177	1,347,177	1,347,177
2003	269,762	269,762	269,762	269,762
2004	511,964	511,964	511,964	511,964
2005	857,801	857,801	857,801	857,801
2006	915,795	915,795	915,795	915,795
2007	312,120	315,429	312,120	312,120
2008	856,672	869,229	856 <i>,</i> 672	856,672
2009	1,177,813	1,205,792	1,177,813	1,177,813
2010	996,928	1,001,361	972,613	996,928
2011	348,639	332,579	377 <i>,</i> 386	348,639
2012	444,529	354,468	495,562	444,529
2013	742,641	793,827	688,418	742,641
2014	1,536,362	889,301	2,074,199	1,536,362
2015	715,618	675,801	772,973	715,618
2016	748,499	817,654	647,048	748,499
Total	\$16,455,079	\$15,830,701	\$16,950,062	\$16,455,079

- (2) From Exhibit 7, Col (4)
- (3) From Exhibit 8, Col (4)
- (4) From Exhibit 9, Col (8)

Estimated Limits Factor

				Incurred	Industry	Selected
Accident			Losses at	Limits -	Limits _	Limits
Year	Retention	\$500K Limits	Retention Limits	Factors	Factors	<u>Factors</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1989	\$250,000	\$207,853	\$207,853	1.000		1.000
1990	250,000	439,863	439,863	1,000		1.000
1991	250,000	84,015	84,015	1,000		1.000
1992	250,000	139,376	139,376	1.000		1.000
1993	250,000	850,979	600,979	1.416		1.416
1994	250,000	106,065	106,065	1.000		1.000
1995	250,000	156,790	156,790	1.000		1.000
1996	250,000	357,926	357,926	1.000		1.000
1997	500,000	706,526	706,526	1.000	1.000	1.000
1998	500,000	554,289	554,289	1.000	1.000	1.000
1999	500,000	657,094	657,094	1.000	1.000	1.000
2000	500,000	164,560	164,560	1.000	1.000	1.000
2001	500,000	497,423	497,423	1.000	1.000	1.000
2002	500,000	1,347,177	1,347,177	1.000	1.000	1.000
2003	1,000,000	269,762	269,762	1.000	0.914	1.000
2004	1,000,000	511,964	511,964	1.000	0.911	1.000
2005	1,000,000	857,801	857,801	1.000	0.909	1.000
2006	1,000,000	915,795	915,795	1.000	0.906	1.000
2007	1,000,000	312,120	312,120	1.000	0.904	1.000
2008	1,000,000	856,672	856,672	1.000	0.901	1.000
2009	1,000,000	1,137,677	1,177,813	0.966	0.898	0.950
2010	500,000	972,613	972,613	1.000	1.000	1.000
2011	500,000	337,771	337,771	1.000	1.000	1.000
2012	500,000	406,294	406,294	1.000	1.000	1.000
2013	500,000	595,409	595,409	1.000	1.000	1.000
2014	500,000	947,515	947,515	1.000	1.000	1.000
2015	500,000	205,275	205,275	1.000	1.000	1.000
2016	500,000	95,425	95,425	1.000	1.000	1.000
Total		\$14,692,028	\$14,482,164			

Notes:

(2)-(4) Provided by MVRMA

(5) = (3)/(4)

(6) Based on insurance industry development

Ultimate Loss Based on Incurred Loss Development Method Retained Limits

Accident Year	Cumulative Incurred Loss	Loss Development Factors	Projected Ultimate Loss
(1)	(2)	(3)	(4)
	4007.070	1 000	6207.053
1989	\$207,853	1.000	\$207,853
1990	439,863	1.000	439,863
1991	84,015	1.000	84,015
1992	139,376	1.000	139,376
1993	600,979	1.000	600,979
1994	106,065	1.000	106,065
1995	156,790	1.000	156,790
1996	357,926	1.000	357,926
1997	706,526	1.000	706,526
1998	554,289	1.000	554,289
1999	657,094	1.000	657,094
2000	164,560	1.000	164,560
2001	497,423	1.000	497,423
2002	1,347,177	1.000	1,347,177
2003	269,762	1.000	269,762
2004	511,964	1.000	511,964
2005	857,801	1.000	857,801
2006	915,795	1.000	915,795
2007	312,120	1.000	312,120
2008	856,672	1.000	856,672
2009	1,177,813	1.000	1,177,813
2010	972,613	1.025	996,928
2011	337,771	1.032	348,639
2012	406,294	1.094	444,529
2013	595,409	1.247	742,641
2014	947,515	1.621	1,536,362
2015	205,275	3.486	715,618
2016	95,425	7.844	748,499
Total	\$14,482,164		\$16,455,079

- (2) Provided by MVRMA
- (3) Based on Exhibit 13
- (4) = $(2) \times (3)$

Ultimate Loss Based on Paid Loss Development Method Retained Limits

	Cumulative	Loss	Projected
Accident	Paid	Development	Ultimate
Year	Loss	Factors	Loss
(1)	(2)	(3)	(4)
1989	\$207,853	1.000	\$207,853
1990	439,863	1.000	439,863
1991	84,015	1.000	84,015
1992	139,376	1.000	139,376
1993	600,979	1.000	600,979
1994	106,065	1.000	106,065
1995	156,790	1.000	156,790
1996	357,926	1.000	357,926
1997	706,526	1.000	706,526
1998	554,289	1.000	554,289
1999	657,094	1.000	657,094
2000	164,560	1.000	164,560
2001	497,423	1.000	497,423
2002	1,347,177	1.000	1,347,177
2003	269,762	1.000	269,762
2004	511,964	1.000	511,964
2005	857,801	1.000	857,801
2006	915,795	1.000	915,795
2007	312,120	1.011	315,429
2008	856,672	1.015	869,229
2009	1,177,813	1.024	1,205,792
2010	972,613	1.030	1,001,361
2011	316,697	1.050	332,579
2012	281,284	1.260	354,468
2013	536,112	1.481	793,827
2014	375,369	2.369	889,301
2015	129,660	5.212	675,801
2016	65,365	12.509	817,654
Total	\$13,598,964		\$15,830,701

- (2) Provided by MVRMA
- (3) Based on Exhibit 13
- (4) = $(2) \times (3)$

Ultimate Loss Based on Case Reserve Development Method Retained Limits

Accident		Cumulative Paid	Case	D.	ercent Developed		Projected Ultimate
Year	Retention	Loss	Reserves	Incurred	Paid	Reserve	Loss
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	±0#0.000	****	40	100.00/	400.004	100.001	4007.050
1989	\$250,000	\$207,853	\$0	100.0%	100.0%	100.0%	\$207,853
1990	250,000	439,863	0	100.0%	100.0%	100.0%	439,863
1991	250,000	84,015	0	100.0%	100.0%	100.0%	84,015
1992	250,000	139,376	0	100.0%	100.0%	100.0%	139,376
1993	250,000	600,979	0	100.0%	100.0%	100.0%	600,979
1994	250,000	106,065	0	100.0%	100.0%	100.0%	106,065
1995	250,000	156,790	0	100.0%	100.0%	100.0%	156,790
1996	250,000	357,926	0	100.0%	100.0%	100.0%	35 7, 926
1997	500,000	706,526	0	100.0%	100.0%	100.0%	706,526
1998	500,000	554,289	0	100.0%	100.0%	100.0%	554,289
1999	500,000	657,094	0	100.0%	100.0%	100.0%	657,094
2000	500,000	164,560	0	100.0%	100.0%	100.0%	164,560
2001	500,000	497,423	0	100.0%	100.0%	100.0%	497,423
2002	500,000	1,347,177	0	100.0%	100.0%	100.0%	1,347,177
2003	1,000,000	269,762	0	100.0%	100.0%	100.0%	269,762
2004	1,000,000	511,964	0	100.0%	100.0%	100.0%	511,964
2005	1,000,000	857,801	0	100.0%	100.0%	100.0%	857,801
2006	1,000,000	915,795	0	100.0%	100.0%	100.0%	915,795
2007	1,000,000	312,120	0	100.0%	99.0%	100.0%	312,120
2008	1,000,000	856,672	0	100.0%	98.6%	100.0%	856,672
2009	1,000,000	1,177,813	0	100.0%	97.7%	100.0%	1,177,813
2010	500,000	972,613	0	97.6%	97.1%	15.0%	972,613
2011	500,000	316,697	21,074	96.9%	95.2%	34.7%	377,386
2012	500,000	281,284	125,010	91.4%	79.4%	58.3%	495,562
2013	500,000	536,112	59,296	80.2%	67.5%	38.9%	688,418
2014	500,000	375,369	572,146	61.7%	42.2%	33.7%	2,074,199
2015	500,000	129,660	75,615	28.7%	19.2%	11.8%	772,973
2016	500,000	65,365	30,060	12.7%	8.0%	5.2%	647,048
Total		\$13,598,964	\$883,200				\$16,950,062

Notes:

(2)-(4) Provided by MVRMA

(5)-(6) Based on Exhibit 13 (7) = [(5)-(6)] / [(1.0-(6)] (8) = (3) + [(4) / (7)]

Ultimate Loss Based on Incurred Loss per Reported Claim Development Method Retained Limits

		Cumulative				
		Incurred Loss	Loss	Projected	Selected	Projected
Accident		per Reported	Development	Average	Ultimate	Ultimate
Year	Retention	Claim	Factors	Loss	Claims	Loss
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1989	\$250,000	\$2,335	1.000	\$2,335	89	\$207,853
1990	250,000	4,443	1.000	4,443	99	439,863
1991	250,000	1,500	1.000	1,500	56	84,015
1992	250,000	1,936	1.000	1,936	72	139,376
1993	250,000	6,462	1.000	6,462	93	600,979
1994	250,000	982	1.000	982	108	106,065
1995	250,000	1,845	1.000	1,845	85	156,790
1996	250,000	2,958	1.000	2,958	121	357,926
1997	500,000	7,137	1.000	7,137	99	706,526
1998	500,000	3,903	1.000	3,903	142	554,289
1999	500,000	4,627	1.000	4,627	142	657,094
2000	500,000	1,127	1.000	1,127	146	164,560
2001	500,000	4,215	1.000	4,215	118	497,423
2002	500,000	8,214	1.000	8,214	164	1,347,177
2003	1,000,000	1,823	1.000	1,823	148	269,762
2004	1,000,000	4,302	1.000	4,302	119	511,964
2005	1,000,000	6,702	1.000	6,702	128	857,801
2006	1,000,000	8,325	1.000	8,325	110	915,795
2007	1,000,000	2,183	1.000	2,183	143	312,120
2008	1,000,000	4,840	1.000	4,840	177	856,672
2009	1,000,000	10,067	1.004	10,111	117	1,182,945
2010	500,000	6,357	1.021	6,491	153	993,057
2011	500,000	1,816	1.026	1,863	186	346,595
2012	500,000	2,987	1.067	3,188	136	433,585
2013	500,000	3,745	1.174	4,396	160	703,338
2014	500,000	5,414	1.526	8,263	177	1,462,484
2015	500,000	1,426	3.205	4,568	148	676,120
2016	500,000	823	6.730	5,536	131	725,244
Total				\$4,561	3,567	\$16,267,419

- (2) Provided by MVRMA
- (3) Based on data provided by MVRMA
- (4) Based on Exhibit 14
- $(5) = (3) \times (4)$
- (6) From Exhibit 19, Col (6)
- $(7) = (5) \times (6)$

Ultimate Loss Based on Paid Loss per Closed Claim Development Method Retained Limits

Accident Year (1)	Retention (2)	Cumulative Paid Loss per Closed Claim (3)	Loss Development Factors (4)	Projected Average Loss (5)	Selected Ultimate Claims (6)	Projected Ultimate Loss (7)
1989	\$250,000	\$2,335	1.000	\$2,335	89	\$207,853
1990	250,000	4,443	1.000	4,443	99	439,863
1990	250,000	1,500	1.000	1,500	56	84,015
1992	250,000	1,936	1.000	1,936	72	139,376
1992	250,000	6,462	1.000	6,462	93	600,979
1995 1994	250,000	982	1.000	982	108	106.065
	250,000	1,845	1,000	1,845	85	156,790
1995	•	2,958	1.000	2,958	121	357,926
1996	250,000	·	1.000	7,137	99	706,526
1997	500,000	7,137	1.000	3,903	142	554,289
1998	500,000	3,903	1.000	3,903 4,627	142	657,094
1999	500,000	4,627		·	142	164,560
2000	500,000	1,127	1.000	1,127	118	•
2001	500,000	4,215	1.000	4,215		497,423
2002	500,000	8,214	1.000	8,214	164	1,347,177
2003	1,000,000	1,823	1.000	1,823	148	269,762
2004	1,000,000	4,302	1.000	4,302	119	511,964
2005	1,000,000	6,702	1.000	6,702	128	857,801
2006	1,000,000	8,325	1.000	8,325	110	915,795
2007	1,000,000	2,183	1.010	2,205	143	315,330
2008	1,000,000	4,840	1.014	4,907	177	868,625
2009	1,000,000	10,067	1.023	10,299	117	1,204,966
2010	500,000	6,357	1.029	6,540	153	1,000,690
2011	500,000	1,721	1.049	1,806	186	335,969
2012	500,000	2,099	1.238	2,599	136	353,525
2013	500,000	3,481	1.461	5,087	160	813,915
2014	500,000	2,182	2.221	4,847	177	857,968
2015	500,000	940	4.886	4,591	148	679,483
2016	500,000	641	9.773	6,263	131	820,421
Total				\$4,437	3,567	\$15,826,150

- (2) Provided by MVRMA
- (3) Based on data provided by MVRMA
- (4) Based on Exhibit 14
- $(5) = (3) \times (4)$
- (6) From Exhibit 19, Col (6)
- $(7) = (5) \times (6)$

Ultimate Loss Based on Incurred Loss Development Method Using Industry Factors Retained Limits

		Industry	
	Cumulative	Loss	Projected
Accident	Incurred	Development	Ultimate
Year	Loss	Factors	Loss
(1)	(2)	(3)	(4)
	4207.052	4.000	¢207.052
1989	\$207,853	1.000	\$207,853
1990	439,863	1.000	439,863
1991	84,015	1.000	84,015
1992	139,376	1.000	139,376
1993	600,979	1.000	600,979
1994	106,065	1.000	106,065
1995	156,790	1.000	156,790
1996	357,926	1.000	357,926
1997	706,526	1.000	706,526
1998	554,289	1.000	554,289
1999	657,094	1.000	657,094
2000	164,560	1.001	164,661
2001	497,423	1.001	498,036
2002	1,347,177	1.002	1,350,499
2003	269,762	1.005	271,094
2004	511,964	1.010	517,032
2005	857,801	1.020	874,870
2006	915,795	1.040	952,603
2007	312,120	1.082	337,714
2008	856,672	1.100	942,677
2009	1,177,813	1.122	1,321,979
2010	972,613	1.150	1,118,954
2011	337,771	1.195	403,748
2012	406,294	1.263	513,338
2013	595,409	1.400	833,523
2014	947,515	1.687	1,598,364
2015	205,275	2.328	477,864
2016	95,425	4.260	406,521
	,		
Total	\$14,482,164		\$16,594,252

- (2) Provided by MVRMA
- (3) Based on insurance industry development
- (4) = $(2) \times (3)$

Ultimate Loss Based on Paid Loss Development Method Using Industry Factors Retained Limits

		Industry	
	Cumulative	Loss	Projected
Accident	Paid	Development	Ultimate
Year	Loss	Factors	Loss
(1)	(2)	(3)	(4)
1989	\$207,853	1.000	\$207,853
1990	439,863	1.000	439,863
1991	84,015	1.000	84,015
1992	139,376	1.000	139,376
1993	600,979	1.000	600,979
1994	106,065	1.000	106,065
1995	156,790	1.000	156,790
1996	357,926	1.000	357,926
1997	706,526	1.000	706,526
1998	554,289	1.000	554,289
1999	657,094	1.000	657,094
2000	164,560	1.001	164,717
2001	497,423	1.002	498,374
2002	1,347,177	1.004	1,352,332
2003	269,762	1.008	271,830
2004	511,964	1.015	519,845
2005	857,801	1.031	884,415
2006	915,795	1.063	973,503
2007	312,120	1.130	352,696
2008	856,672	1.157	990,788
2009	1,177,813	1.190	1,401,709
2010	972,613	1.242	1,208,432
2011	316,697	1.329	421,027
2012	281,284	1.485	417,700
2013	536,112	1.819	975,239
2014	375,369	2.519	945,723
2015	129,660	4.283	555,342
2016	65,365	10.708	699,906
Total	\$13,598,964		\$16,644,355

- (2) Provided by MVRMA
- (3) Based on insurance industry development
- (4) = $(2) \times (3)$

Loss Development Patterns

Month of			\$1M Limits % I	Developed	Industry % Developed	
Development	Incurred	Paid	Incurred	Paid	Incurred	Paid
(1)	(2)	(3)	(4)	(5)	(6)	(7)
336	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
324	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
312	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
300	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
288	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
276	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
264	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
252	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
240	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
228	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
216	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
204	100.0%	100.0%	100.0%	100.0%	99.9%	99.9%
192	100.0%	100.0%	100.0%	100.0%	99.9%	99.8%
180	100.0%	100.0%	100.0%	100.0%	99.8%	99.6%
168	100.0%	100.0%	100.0%	100.0%	99.5%	99.2%
156	100.0%	100.0%	100.0%	100.0%	99.0%	98.5%
144	100.0%	100.0%	100.0%	100.0%	98.0%	97.0%
132	100.0%	100.0%	100.0%	100.0%	96.1%	94.1%
120	100.0%	99.0%	100.0%	99.0%	92.4%	88.5%
108	100.0%	98.9%	100.0%	98.6%	90.9%	86.5%
96	100.0%	98.1%	100.0%	97.7%	89.1%	84.0%
84	97.6%	97.1%	97.3%	96.3%	86.9%	80.5%
72	96.9%	95.2%	94.9%	90.1%	83.7%	75.2%
60	91,4%	79.4%	87.1%	74.2%	79.1%	67.3%
48	80.2%	67.5%	72.5%	56.1%	71.4%	55.0%
36	61.7%	42.2%	46.3%	30.6%	59.3%	39.7%
24	28.7%	19.2%	20.9%	13.5%	43.0%	23.3%
12	12.7%	8.0%	5.0%	3.1%	23.5%	9.3%

- (2) Based on Exhibit 15
- (3) Based on Exhibit 16
- (4) = Col (2) lagged 6 months
- (5) = Col (3) lagged 6 months
- (6)-(7) Based on insurance industry development

Severity Development Patterns

Month of	\$500K Limits %	Developed	\$1M Limits % I	Developed
Development	Incurred	Paid	Incurred	Paid
(1)	(2)	(3)	(4)	(5)
336	100.0%	100.0%	100.0%	100.0%
324	100.0%	100.0%	100.0%	100.0%
312	100.0%	100.0%	100.0%	100.0%
300	100.0%	100.0%	100.0%	100.0%
288	100.0%	100.0%	100.0%	100.0%
276	100.0%	100.0%	100.0%	100.0%
264	100.0%	100.0%	100.0%	100.0%
252	100.0%	100.0%	100.0%	100.0%
240	100.0%	100.0%	100.0%	100.0%
228	100.0%	100.0%	100.0%	100.0%
216	100.0%	100.0%	100.0%	100.0%
204	100.0%	100.0%	100.0%	100.0%
192	100.0%	100.0%	100.0%	100.0%
180	100.0%	100.0%	100.0%	100.0%
168	100.0%	100.0%	100.0%	100.0%
156	100.0%	100.0%	100.0%	100.0%
144	100.0%	100.0%	100.0%	100.0%
132	100.0%	100.0%	100.0%	100.0%
120	100.0%	99.0%	100.0%	99.0%
108	100.0%	99.0%	100.0%	98.6%
96	99.9%	98.2%	99.6%	97.7%
84	97.9%	97.2%	97.7%	96.4%
72	97.5%	95.3%	96.1%	90.5%
60	93.7%	80.8%	90.5%	75.4%
48	85.2%	68.4%	77.5%	58.0%
36	65.5%	45.0%	50.0%	32.7%
24	31.2%	20.5%	23.4%	15.5%
12	14.9%	10.2%	6.3%	4.8%

- (2) Based on Exhibit 17
- (3) Based on Exhibit 18
- (4) = Col (2) lagged 6 months
- (5) = Col (3) lagged 6 months

Miami Valley Risk Management Association General Liability December 31, 2016 Incurred Loss at \$500K SIR

						Ir	curred Loss	at \$500K SIR						
Accident						١	Maturity (Age	in Months)						
Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168
1989	97,608	277,034	216,667	211,909	210,162	214,162	207,853	207,853	207,853	207,853	207,853 439,863	207,853 439,863	207,853 439,863	207,853 439,863
1990	102,048	155,946	209,752	252,657	436,862	436,928 139,535	435,782 84,015	432,379 84,015	439,863 84,015	439,863 84,015	84,015	84,015	84,015	84,015
1991	12,322	71,071 28,145	61,614 162,765	53,618 137,258	97,558 123,437	140,033	143,955	143,955	139,376	139,376	139,376	139,376	139,376	139,376
1992 1993	21,837 369,601	528,569	536,313	795,876	860,519	860,519	865,450	865,450	850,979	850,979	850,979	850,979	850,979	850,979
1994	34,540	86,003	222,029	97,658	106,375	106,065	106,065	106,065	106,065	106,065	106,065	106,065	106,065	106,065
1995	89,788	74,221	123,230	134,129	189,397	156,790	156,790	156,790	156,790	156,790	156,790	156,790	156,790	156,790
1996	67,665	186,767	271,412	290,544	373,656	356,656	352,170	357,926	357,926	357,926	357,926	357,926	357,926	357,926
1997	51,105	95,958	683,597	761,629	721,708	706,526	706,526	706,526	706,526	706,526	706,526 554,289	706,526 554,289	706,526 554,289	706,526 554,289
1998	36,819	222,626	279,432	552,177	568,186	554,289 657,094	554,289 657,094	554,289 657,094	554,289 657,094	554,289 657,094	657,094	657,094	657,094	657,094
1999	81,637 98,597	187,463 90,655	379,072 192,961	471,046 191,743	674,779 164,560	164,560	164,560	164,560	164,560	164,560	164,560	164,560	164,560	164,560
2000 2001	89,836	282,253	445,860	522,576	522,589	522,198	522,271	497,423	497,423	497,423	497,423	497,423	497,423	497,423
2002	256,428	309,254	644,254	792,306	1,028,490	1,078,490	1,139,677	1,347,177	1,347,177	1,347,177	1,347,177	1,347,177	1,347,177	1,347,177
2003	50,550	134,895	273,187	306,344	259,291	276,582	269,762	269,762	269,762	269,762	269,762	269,762	269,762	269,762
2004	46,226	88,740	255,616	385,688	441,920	453,961	511,964	511,964	511,964	511,964	511,964	511,964	511,964	
2005	108,411	258,559	529,054	475,826	486,242	536,564	541,563	857,800	857,801	857,801	857,801	857,801		
2006	92,218	278,812	408,397	637,848	685,110	960,582	935,568	935,568	915,795	915,795	915,795			
2007	70,876	146,108	259,967	319,743	323,367	312,120	312,120 856,672	312,120 856,672	312,120 856,672	312,120				
2008	113,771 66,190	206,028 226,128	764,853 501,457	813,062 803,561	830,118 1,207,206	819,263 1,164,907	1,137,677	1,137,677	830,072					
2009 2010	59,101	163,276	590,658	841,098	930,152	972,613	972,613	=,=0.,						
2011	131,480	142,329	212,573	241,549	293,869	337,771	,							
2012	74,182	200,841	291,564	366,664	406,294									
2013	95,338	277,389	354,313	595,409										
2014	164,985	334,063	947,515											
2015	100,820	205,275												
2016	95,425													
Accident						Age	-to-Age Facto	ors						
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1989	2.838	0.782	0.978	0.992	1.019	0.971	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000
1990	1.528	1.345	1.205	1.729	1.000	0.997	0.992	1.017	1.000	1.000	1.000	1,000	1.000	1.000
1991	5.768	0.867	0.870	1.820	1.430	0.602	1.000	1.000	1.000	1,000	1.000	1.000	1.000 1.000	1.000 1.000
1992	1.289	5.783	0.843	0.899	1.134	1,028	1.000	0,968 0.983	1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000	1.000
1993	1.430	1.015	1,484	1.081 1.089	1.000 0.997	1.006 1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000
1994 1995	2.490 0.827	2.582 1.660	0.440 1.088	1.412	0.828	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	2.760	1.453	1.070	1.286	0.955	0.987	1.016	1.000	1.000	1.000	1.000	1,000	1.000	1.000
1997	1.878	7.124	1.114	0.948	0.979	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	6.046	1,255	1.976	1.029	0.976	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000
1999	2.296	2.022	1.243	1.433	0.974	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	0.919	2.129	0.994	0.858	1.000	1.000	1.000	1.000	1,000	1.000	1.000 1.000	1.000	1.000 1.000	1,000 1.000
2001	3.142	1.580	1.172	1.000	0,999	1.000	0.952 1.182	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000
2002	1.206	2.083 2.025	1.230 1.121	1.298 0.846	1.049 1.067	1.057 0.975	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2003 2004	2.669 1.920	2.881	1.509	1.146	1.027	1.128	1.000	1.000	1.000	1.000	1.000	1.000		
2005	2.385	2.046	0.899	1.022	1.103	1,009	1.584	1.000	1.000	1.000	1.000			
2006	3.023	1.465	1.562	1,074	1.402	0.974	1.000	0.979	1.000	1,000				
2007	2.061	1.779	1.230	1.011	0.965	1.000	1.000	1.000	1.000					
2008	1.811	3.712	1.063	1.021	0.987	1.046	1.000	1.000						
2009	3.416	2.218	1.602	1.502	0.965	0,977	1.000							
2010	2.763	3.618	1.424	1.106	1.046 1.149	1.000								
2011 2012	1.083 2.707	1.494 1.452	1.136 1.257	1.217 1.108	1.145									
2012	2.910	1.432	1.680	1.106										
2014	2.025	2.836												
2015	2.036													
							4.047	0.007	1 000	1.000	1,000	1,000	1.000	1.000
All Yr Vol	2.035	1.943	1,246	1.142 1.147	1.034 1.034	1.004 1,004	1.047 1.022	0.997 0.996	1.000 1.000	1.000 1.000	1.000	1.000	1.000	1.000
All Yr Vol Ex. H/L	2.019	1.905	1.243 1.315	1.147	1.066	1.014	1.078	0.997	1.000	1.000	1,000	1.000	1.000	1.000
10 Yr Vol	2.250 2.349	2.176 2.138	1.315	1.077	1.042	1.014	1.039	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol Ex. H/L 5 Yr Vol	2.349	2.138	1.460	1.196	1.042	0.996	1,084	0.994	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Vol Ex. H/L	2.177	2.144	1.454	1.125	1.010	0.989	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000
3 Yr Vol	2.262	1.962	1.402	1.125	1.018	1.003	1,000	0.991	1.000	1.000	1.000	1.000	1.000	1.000
Prior	2.400	2.100	1.250	1.150	1,035	1.010	1.025	1.000	1.000	1.000	1.000	1.000	1.000	1.000
							4.005	4.000	1.000	1 000	1.000	1.000	1.000	1.000
Selected	2.250	2.150	1.300	1.140	1.060	1.007	1.025	1.000	1.000 1.000	1.000 1.000	1.000	1.000	1.000	1.000
LDFs	7.844	3,486 28.7%	1.621 61.7%	1.247 80.2%	1.094 91.4%	1.032 96.9%	1.025 97.6%	1.000 100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
% Incurred	12.7%	28.7%	01.776	OU.276	31.470	30.370	31.070	200.070	100.074	200.073	200.0.0			

Miami Valley Risk Management Association General Liability December 31, 2016 Incurred Loss at \$500K SIR

						11	ncurred Loss	at 2200K 21K						
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2007 2008 2007 2008 2010 2011 2012 2013 2014 2015 2016	180 207,853 439,863 84,015 139,376 106,065 155,790 554,526 554,529 657,094 164,562 497,423 1,347,177	192 207,853 439,863 84,015 139,376 850,979 106,065 156,790 554,289 657,094 164,560 497,423	204 207,853 439,863 84,015 139,376 850,979 106,065 156,790 357,926 706,526 554,289 657,094 164,560	216 207,853 439,863 84,015 139,376 850,979 106,065 156,790 357,926 706,526 554,289 657,094	228 207,853 439,863 84,015 139,376 850,979 106,065 156,790 357,926 706,526 554,289	240 207,853 439,863 84,015 139,376 850,979 106,065 156,790 357,926 706,526	Vaturity (Age 252 207,853 439,863 84,015 139,376 850,979 106,065 156,790 357,926	in Months) 264 207,853 439,863 439,863 84,015 139,376 850,979 106,065 156,790	276 207,853 439,863 84,015 139,376 850,979 106,065	288 207,853 433,863 84,015 133,376 850,979	300 207,853 439,863 84,015 139,376	312 207,853 439,863 84,015	324 207,853 439,863	336 207,853
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-216 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Age 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	-to-Age Facto 252-264 1.000 1.000 1.000 1.000 1.000 1.000 1.000	758 264-276 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-336 1.000	336-UIt
All Yr Vol All Yr Vol Ex. H/L 10 Yr Vol 10 Yr Vol Ex. H/L 5 Yr Vol Ex. H/L 3 Yr Vol Prior	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000	1.000	
Selected LDFs % Incurred	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1,000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1,000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%

Miami Valley Risk Management Association General Liability December 31, 2016 Paid Loss at \$500K SIR

Accident							Maturity (Age				400		456	168
Year	12	24	36	48	60	72	84	96	108	120 207,853	132 207,853	144 207,853	156 207,853	207,853
1989	43,838	169,390	126,482	200,212	201,189	206,198	207,853	207,853 432,379	207,853 439,863	439,863	439,863	439,863	439,863	439,863
1990	36,218	72,223	101,376	172,281	429,216	429,282 82,219	431,947 84,015	84,015	84,015	84,015	84,015	84,015	84,015	84,015
1991	8,182	13,655	34,548 48,844	52,484 84,126	56,233 96,940	133,151	138,407	138,779	139,376	139,376	139,376	139,376	139,376	139,376
1992	4,787	16,680	289,999	378,014	831,120	838,929	847,999	848,735	850,979	850,979	850,979	850,979	850,979	850,979
1993 1994	43,219 6,926	164,451 65,029	86,321	97,658	99,653	106,065	106,065	106,065	106,065	106,065	106,065	106,065	106,065	106,065
1995	3,794	31,144	84,188	108,916	128,988	156,790	156,790	156,790	156,790	156,790	156,790	156,790	156,790	156,790
1996	9,115	94,177	201,725	247,114	331,060	336,010	339,152	357,926	357,926	357,926	357,926	357,926	357,926	357,926
1997	19,900	56,485	170,375	690,512	705,609	706,526	706,526	706,526	706,526	706,526	706,526	706,526	706,526	706,526
1998	15,685	138,193	201,920	252,856	546,353	554,289	554,289	554,289	554,289	554,289	554,289	554,289	554,289	554,289
1999	38,571	112,133	261,977	387,683	638,399	657,094	657,094	657,094	657,094	657,094	657,094	657,094	657,094	657,094
2000	42,870	76,054	105,748	162,267	164,560	164,560	164,560	164,560	164,560	164,560	164,560	164,560	164,560	164,560
2001	18,952	123,618	283,857	432,734	470,949	483,429	493,049	497,423	497,423	497,423	497,423	497,423	497,423	497,423
2002	61,435	146,396	268,703	639,459	872,109	897,035	975,645	1,021,028	1,053,852	1,060,070	1,347,177	1,347,177 269,762	1,347,177 269,762	1,347,177 269,762
2003	24,232	49,373	196,632	234,046	243,534	267,728	269,762	269,762	269,762	269,762 511,964	269,762 511,964	511,964	511,964	203,702
2004	22,372	50,964	124,762	343,096	401,681	444,143	511,964	511,964 857,800	511,964 857,801	857,801	857,801	857,801	311,304	
2005	48,390	139,464	288,461	436,538	464,294	510,368 848,934	521,409 860,568	860,568	915,795	915,795	915,795	057,001		
2006	28,487	78,525	207,322	489,371 233,905	564,195 297,482	312,120	312,120	312,120	312,120	312,120	513,755			
2007	31,341	88,861	203,485	737,628	818,200	819,263	856,672	856,672	856,672	312,120				
2008	78,741 18,347	150,771 164,997	677,316 414,887	670,003	774,798	1,137,596	1,137,677	1,137,677	050,072					
2009 2010	36,625	94,473	335,590	531,550	660,802	972,613	972,613	_,,						
2011	58,248	132,329	170,021	218,842	252,485	316,697	,							
2012	41,813	72,238	168,777	216,588	281,284	,								
2013	71,626	172,455	278,864	536,112	,-									
2014	105,074	233,752	375,369	•										
2015	85,569	129,660												
2016	65,365													
Accident							to-Age Facto		400 430	120-132	132-144	144-156	156-168	168-180
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108 1.000	108-120 1.000	1.000	1.000	1.000	1.000	1.000
1989	3.864	0.747	1.583	1.005	1.025	1.008	1.000	1.017	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.994	1.404	1.699	2.491	1,000	1.006 1.022	1.001 1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000
1991	1.669	2.530	1.519	1.071	1.462 1.374	1.022	1.003	1.004	1.000	1.000	1.000	1.000	1.000	1.000
1992	3.484	2.928	1.722 1.304	1.152 2.199	1.009	1.011	1.001	1,003	1.000	1.000	1.000	1,000	1.000	1.000
1993	3,805 9.389	1.763 1.327	1.131	1.020	1.064	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1994 1995	8.209	2.703	1.294	1.184	1.216	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
1996	10.332	2.142	1.225	1.340	1.015	1.009	1.055	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	2.838	3.016	4.053	1,022	1.001	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	8.811	1.461	1.252	2.161	1.015	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	2.907	2.336	1.480	1.647	1.029	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.774	1.390	1.534	1.014	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
2001	6.523	2.296	1.524	1.088	1.026	1.020	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	2.383	1.835	2.380	1.364	1.029	1.088	1.047	1.032	1.006	1.271	1.000	1.000	1.000	1.000
2003	2.038	3.983	1.190	1.041	1.099	1.008	1.000	1.000	1.000	1.000	1.000 1.000	1.000	1.000	
2004	2.278	2.448	2.750	1.171	1.106	1.153 1.022	1.000 1.645	1.000 1.000	1,000 1.000	1.000 1.000	1.000	1.000		
2005	2.882	2.068	1.513	1.064	1.099 1.505	1.014	1.000	1.064	1.000	1.000	1.000			
2006	2.757	2.640	2.360	1.153 1.272	1.049	1.000	1.000	1.000	1.000	1.000				
2007	2.835 1.915	2.290 4.492	1.149 1.089	1.109	1.001	1.046	1.000	1.000	2.000					
2008 2009	8.993	2.515	1.615	1.156	1.468	1.000	1.000							
2010	2.579	3.552	1.584	1.243	1.472	1.000								
2011	2.272	1.285	1.287	1.154	1.254									
2012	1.728	2.336	1.283	1.299										
2013	2.408	1.617	1.922											
2014	2.225	1.606												
2015	1.515													
				4 200	4.433	1.022	1.030	1.010	1.001	1.034	1.000	1,000	1.000	1.000
All Yr Vol	2.825	2.108	1.604	1.289	1.132	1.022 1.017	1,039 1,007	1.005	1.001	1,000	1.000	1.000	1.000	1.000
All Yr Vol Ex. H/L	2.873	2.054	1.589	1.269 1.157	1.112 1.220	1.017	1.063	1,015	1.000	1.046	1.000	1,000	1.000	1.000
10 Yr Vol	2.371	2.350	1.538	1.157	1.225	1,025	1.003	1.008	1.001	1.000	1.000	1.000	1.000	1.000
10 Yr Vol Ex. H/L	2.264	2.175 1.884	1.612 1.588	1.157	1.225	1.012	1.003	1.016	1.000	1.079	1.000	1.000	1.000	1.000
5 Yr Vol 5 Yr Vol Ex. H/L	2.044 2.137	1.720	1.543	1.188	1.333	1.004	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
3 Yr Vol	2.043	1.720	1.573	1.235	1.438	1,013	1.000	1.027	1.000	1.000	1.000	1.000	1.000	1.000
Prior	2.500	2,350	1.550	1.165	1.150	1.025	1.010	1.008	1,001	1.010	1.000	1.000	1.000	1.000
Selected	2.400	2.200	1.600	1.175	1.200	1.020	1.010	1.008	1.001	1.010	1.000	1.000	1,000	1.000
LDFs	12.509	5.212	2.369	1.481	1.260	1.050	1.030	1.019	1.011	1.010	1.000	1.000	1.000	1.000
% Paid	8.0%	19.2%	42.2%	67.5%	79.4%	95.2%	97.1%	98.1%	98.9%	99.0%	100.0%	100.0%	100.0%	100.0%

Miami Valley Risk Management Association General Liability December 31, 2016 Paid Loss at \$500K SIR

							raid Loss at	220016 2111						
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	180 207,853 439,863 84,015 139,376 850,979 106,065 156,790 357,926 706,526 554,289 657,094 164,560 497,423 1,347,177	192 207,853 439,863 84,015 139,376 850,979 106,065 156,790 357,926 706,526 554,289 657,094 164,560 497,423	204 207,853 439,863 84,015 139,376 850,979 106,065 156,790 357,926 706,526 554,289 657,094	216 207,853 439,863 84,015 139,376 850,979 106,065 156,790 357,926 706,526 554,289 657,094	228 207,853 439,863 84,015 139,376 850,979 106,065 156,790 357,926 706,526 554,289	240 207,853 439,863 84,015 139,376 850,979 106,065 156,790 357,926 706,525	Maturity (Age 252 207,853 439,863 84,015 139,376 850,979 106,065 156,790 357,926	in Months) 264 207,853 439,863 84,015 139,376 850,979 105,065 156,790	276 207,853 439,863 84,015 139,376 850,979 106,065	288 207,853 439,863 84,015 139,376 850,979	300 207,853 439,863 84,015 139,376	312 207,853 439,863 84,015	324 207,853 439,863	336 207,853
Accident Year 1889 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-216 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Age 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	-to-Age Factor 252-264 1.000	rs 264-276 1.000 1.000 1.000 1.000 1.000 1.000	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-336 1.000	336-Ult
All Yr Vol All Yr Vol Ex. H/L 10 Yr Vol 10 Yr Vol Ex. H/L 5 Yr Vol 5 Yr Vol Ex. H/L 3 Yr Vol 7 Yr Vol Frior	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000	1.000	
Selected LDFs % Paid	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1,000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%

Miami Valley Risk Management Association General Liability December 31, 2016 Incurred Loss per Reported Claim at \$500K SIR

							s per report		3001 3.11					
Accident			36	48	60	72	faturity (Age 84	in Months) 96	108	120	132	144	156	168
Year 1989	12 1,251	24 3,184	2,462	2,381	2,361	2,406	2,335	2,335	2,335	2,335	2,335	2,335	2,335	2,335
1990	1,260	1,752	2,231	2,605	4,458	4,458	4,402	4,367	4,443	4,443	4,443	4,443	4,443	4,443
1991	287	1,394	1,141	993	1,807	2,492	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
1992	465	461	2,429	1,933	1,714	1,945	1,999	1,999	1,936	1,936	1,936	1,936	1,936	1,936
1993	5,280	6,368	6,026	8,843	9,456	9,253	9,306	9,306	9,150	9,150	9,150	9,150	9,150 982	9,150 982
1994	335	811	2,056	904	985	982	982	982 1,845	982 1,845	982 1,845	982 1,845	982 1,845	1,845	1,845
1995	1,230	952	1,467	1,578	2,228	1,845 2,923	1,845 2,910	1,845 2,958	2,958	2,958	2,958	2,958	2,958	2,958
1996	663	1,638	2,262 6,905	2,382 7,693	3,063 7,290	7,137	7,137	7,137	7,137	7,137	7,137	7,137	7,137	7,137
1997 1998	601 315	1,021 1,674	2,010	3,916	4,030	3,931	3,903	3,903	3,903	3,903	3,903	3,903	3,903	3,903
1999	669	1,409	2,688	3,341	4,786	4,627	4,627	4,627	4,627	4,627	4,627	4,627	4,627	4,627
2000	789	657	1,349	1,341	1,127	1,127	1,127	1,127	1,127	1,127	1,127	1,127	1,127	1,127
2001	856	2,543	3,877	4,355	4,355	4,352	4,352	4,145	4,215	4,215	4,215	4,215	4,215	4,215
2002	2,155	1,995	4,027	4,861	6,310	6,617	6,949	8,214	8,214	8,214	8,214 1,823	8,214 1,823	8,214 1,823	8,214 1,823
2003	414	950	1,897	2,113	1,788	1,869	1,823	1,823	1,823 4,302	1,823 4,302	4,302	4,302	4,302	1,023
2004	544	845	2,242	3,269 3,689	3,714 3,769	3,815 4,159	4,302 4,198	4,302 6,650	6,702	6,702	6,702	6,702	1,501	
2005	977 1,013	2,085 2,733	4,133 3,889	5,906	6,344	8,733	8,505	8,505	8,325	8,325	8,325	-,		
2006 2007	554	1,029	1,831	2,236	2,261	2,183	2,183	2,183	2,183	2,183	•			
2008	711	1,205	4,371	4,594	4,690	4,629	4,840	4,840	4,840					
2009	649	2,001	4,286	6,868	10,318	9,956	9,724	9,724						
2010	444	1,103	3,912	5,534	6,079	6,357	6,357							
2011	764	786	1,149	1,306	1,580	1,816								
2012	613	1,488	2,145	2,696	2,987									
2013	696	1,778	2,228	3,745										
2014	1,044	1,920	5,414											
2015	736 823	1,426												
2016	023													
Accident							to-Age Facto						455450	400 400
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1989	2.545	0.773	0.967	0.992	1.019	0.971	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000
1990	1.391	1.273	1.167	1.711	1.000	0.987	0.992	1.017	1.000 1.000	1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000
1991	4.863	0.819	0.870	1.820	1.379	0.602 1.028	1.000 1.000	1,000 0.968	1.000	1.000	1.000	1.000	1.000	1.000
1992	0.993	5.265 0.946	0.796 1.467	0.887 1.069	1.134 0.978	1.026	1.000	0.983	1.000	1.000	1.000	1.000	1.000	1.000
1993 1994	1.206 2.419	2.534	0.440	1.089	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	0.774	1.542	1.076	1.412	0.828	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	2.470	1.381	1.053	1.286	0.955	0.996	1.016	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.698	6.764	1.114	0.948	0.979	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	5.319	1.201	1.948	1.029	0.976	0.993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	2.106	1.907	1.243	1.433	0.967	1.000	1.000	1.000	1.000	1,000	1.000	1.000 1.000	1.000 1.000	1.000
2000	0.833	2.054	0.994	0.841	1.000	1,000	1,000	1.000 1.017	1.000 1.000	1.000	1.000 1.000	1.000	1.000	1.000
2001	2.972	1.525	1.123	1.000	0.999 1.049	1.000 1.050	0.952 1.182	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	0.926 2.293	2,018 1.997	1.207 1.114	1.298 0.846	1.045	0.975	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2003 2004	1.554	2.653	1.458	1.136	1.027	1.128	1.000	1.000	1.000	1,000	1.000	1.000		
2005	2.135	1.982	0,892	1,022	1,103	1.009	1.584	1.008	1.000	1.000	1.000			
2006	2.697	1.423	1.518	1.074	1.377	0.974	1.000	0.979	1.000	1.000				
2007	1.858	1.779	1,221	1.011	0,965	1.000	1.000	1.000	1.000					
2008	1.694	3.628	1.051	1.021	0.987	1.046	1.000	1.000						
2009	3.084	2.142	1.602	1.502	0.965	0.977	1.000							
2010	2.483	3.546	1.415	1.099	1.046	1.000								
2011	1.029	1.461	1.136	1.210 1.108	1.149									
2012	2.427	1.442	1.257 1.680	1.108										
2013	2.555 1.839	1.253 2.820	1.560											
2014 2015	1.937	2.020												
2013	1.337													
								0.000	1 000	1 000	1 000	1 000	1,000	1.000
Ali Yr Avg	2.152	2.159	1.192	1.160	1.040	0.988	1.035	0.999 0.999	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000	1.000
All Yr Avg Ex. H/L	2.080	2.025	1.192	1.145	1.034	1.001 1.016	1.010 1.072	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Avg	2.160	2.148	1.323	1.103 1.085	1.071 1.046	1.016	1.072	1.001	1.000	1.000	1.000	1,000	1.000	1.000
10 Yr Avg Ex. H/L	2.186	2.074 2.104	1.332 1.418	1.188	1.022	0.999	1.117	0.997	1.000	1.000	1,000	1.000	1.000	1.000
5 Yr Avg 5 Yr Avg Ex. H/L	1.957 2.067	1.908	1.418	1.139	0.999	0.992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 Yr Avg	2,110	1.838	1.358	1,139	1.053	1.007	1.000	0.993	1.000	1.000	1.000	1.000	1.000	1.000
Prior	2.150	1.990	1.250	1.160	1.035	1.005	1.025	1.001	1.000	1.000	1.000	1.000	1.000	1.000
.,,=,										4 005	4.000	1.000	1.000	1.000
Selected	2.100	2.100	1.300	1.100	1.040	1.005	1.020	1.001	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000
LDFs	6.730	3.205	1.526	1.174	1.067	1.026	1.021 97.9%	1.001 99.9%	1.000	1.000	100.0%	100.0%	100.0%	100.0%
% Incurred	14.9%	31.2%	65.5%	85.2%	93.7%	97.5%	37.3%	33.3%	100.076	100.076	100.070	700.014	200,075	200,0,0

Miami Valley Risk Management Association General Liability December 31, 2016 Incurred Loss per Reported Claim at \$500K SIR

						incorred Le	,,,, ре., перог	tea claim ary		1				
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 2000 2001 2002 2003 2004 2005 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	180 2,335 4,443 1,500 1,936 9,150 982 1,845 2,958 7,137 3,4627 1,127 4,215 8,214	192 2,335 4,443 1,500 1,936 9,150 982 1,845 2,958 7,137 3,903 4,627 1,127 4,215	204 2,335 4,443 1,500 1,936 9,150 982 1,845 2,958 7,137 3,103 4,627 1,127	216 2,335 4,443 1,500 1,936 9,150 982 1,845 2,958 7,137 3,903 4,627	228 2,335 4,443 1,500 1,936 9,150 982 1,845 2,958 7,137 3,903	240 2,335 4,443 1,500 1,936 9,150 982 1,845 2,958 7,137	Maturity (Age 252 2,335 4,443 1,500 1,936 9,150 982 1,845 2,958	in Months) 264 2,335 4,443 1,500 1,936 9,150 9,82 1,845	275 2,335 4,443 1,500 1,936 9,150 982	288 2,335 4,443 1,500 1,936 9,150	300 2,335 4,443 1,500 1,936	312 2,335 4,443 1,500	324 2,335 4,443	336 2,335
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-216 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Age 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	eto-Age Facto 252-264 1.000 1.000 1.000 1.000 1.000 1.000 1.000	264-276 1.000 1.000 1.000 1.000 1.000 1.000 1.000	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-336 1.000	336-Ult
All Yr Avg All Yr Avg Ex. H/L 10 Yr Avg Ex. H/L 5 Yr Avg Ex. H/L 5 Yr Avg Ex. H/L 3 Yr Avg Prior Selected LDFs % Incurred	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 100.0%	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 100.0%	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 100.0%	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 100.0%	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 100.0%	1.000 1.000 1.000 1.000 1.000 1.000 100.0%	1.000 1.000 1.000 1.000 1.000 1.000 100.0%	1.000 1.000 1.000 1.000 100.0%	1.000 1.000 1.000 1.000 100.0%	1.000 1.000 100.0%
≫ incurred	100.076	100.0%	700,070	100.076	100.070	200.070	200.070							

Miami Valley Risk Management Association General Liability December 31, 2016 Paid Loss per Closed Claim at \$500K SIR

Accident							/aturity (Age						45.6	160
Year	12	24	36	48	60	72	84	96	108	120	132	144 2,335	156 2,335	168 2,335
1989	719	2,200	1,562	2,275	2,286	2,343	2,335	2,335	2,335	2,335	2,335	4,443	4,443	4,443
1990	541	881	1,179	1,893	4,425	4,426	4,408	4,367	4,443	4,443 1,500	4,443 1,500	1,500	1,500	1,500
1991	215	303	705	1,009	1,061	1,523	1,500	1,500	1,500	1,936	1,936	1,936	1,936	1,936
1992	117	293	814	1,275	1,405	1,902	1,949	1,955	1,936	9,150	9,150	9,150	9,150	9,150
1993	786	2,284	3,537	4,345	9,445	9,533	9,422	9,225	9,150	9,150	982	982	982	982
1994	75	638	807	904	931	991	982	982	982		1,845	1,845	1,845	1,845
1995	67	421	1,066	1,345	1,554	1,845	1,845	1,845	1,845	1,845 2,958	2,958	2,958	2,958	2,958
1996	104	880	1,770	2,112	2,759	2,800	2,826	2,958	2,958	7,137	7,137	7,137	7,137	7,137
1997	258	649	1,893	7,269	7,274	7,137	7,137	7,137	7,137	3,903	3,903	3,903	3,903	3,903
1998	149	1,124	1,541	1,859	3,931	3,931	3,903	3,903	3,903		4,627	4,627	4,627	4,627
1999	344	897	2,015	2,872	4,660	4,627	4,627	4,627	4,627	4,627 1,127	1,127	1,127	1,127	1,127
2000	390	576	778	1,159	1,127	1,127	1,127	1,127	1,127	4,215	4,215	4,215	4,215	4,215
2001	220	1,261	2,678	3,796	4,025	4,097	4,178	4,215	4,215	6,503	8,214	8,214	8,214	8,214
2002	544	996	1,816	4,179	5,451	5,606	5,986	6,264	6,465			1,823	1,823	1,823
2003	216	374	1,425	1,696	1,703	1,834	1,823	1,823	1,823	1,823	1,823 4,302		4,302	1,623
2004	291	525	1,248	3,063	3,433	3,764	4,302	4,302	4,302	4,302		4,302	4,302	
2005	526	1,245	2,445	3,520	3,656	4,019	4,105	6,650	6,702	6,702	6,702	6,702		
2006	352	844	2,116	4,798	5,425	8,009	7,895	7,895	8,325	8,325	8,325			
2007	277	684	1,485	1,707	2,110	2,183	2,183	2,183	2,183	2,183				
2008	532	919	4,056	4,339	4,675	4,629	4,840	4,840	4,840					
2009	197	1,557	3,806	5,982	6,918	9,807	9,724	9,724						
2010	293	665	2,314	3,592	4,435	6,357	6,357							
2011	371	735	945	1,202	1,380	1,721								
2012	394	543	1,260	1,616	2,099									
2013	582	1,142	1,823	3,481										
2014	705	1,391	2,182											
2015	674	940												
2016	641													
						٨٠٠	to-Age Facto							
Accident	40.04	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
Year	12-24	0.710	1.457	1,005	1.025	0.997	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000
1989	3.061	1.338	1,606	2.337	1.000	0.996	0.991	1.017	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.629		1,432	1.051	1.435	0.985	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.409	2.324 2.782	1,566	1.102	1.354	1.025	1.003	0.990	1.000	1.000	1.000	1,000	1.000	1.000
1992	2.506	1.548	1.229	2.174	1.009	0.988	0.979	0.992	1.000	1.000	1.000	1.000	1.000	1.000
1993	2.907			1.030	1.064	0.991	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1994	8.469	1,265	1.121	1.156	1.187	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	6.323	2.532	1.262	1.306	1.015	1.000	1.047	1.000	1.000	1.000	1.000	1,000	1.000	1.000
1996	8.497	2.010	1.194		0.981	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	2.512	2,916	3.840	1.001	1.000	0.993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	7.521	1.372	1.206	2.114	0.993	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
1999	2.605	2,246	1.425	1.623	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000
2000	1.478	1.350	1.491 1.417	0.972 1.060	1.018	1.020	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	5.724	2,123 1.823	2.302	1.304	1.029	1.068	1.047	1.032	1.006	1.263	1.000	1.000	1.000	1.000
2002 2003	1.832 1.729	3,809	1.190	1.004	1.077	0.994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
	1.808	2.375	2.455	1.121	1.096	1.143	1,000	1.000	1.000	1.000	1.000	1.000		
2004 2005	2.367	1.963	1.440	1.038	1.099	1.022	1.620	1.008	1,000	1.000	1.000			
	2.401	2.505	2.268	1.131	1.476	0.986	1,000	1.055	1.000	1.000				
2006 2007	2.465	2.505	1.149	1.236	1.035	1.000	1.000	1.000	1,000					
2007	1.728	4.412	1.070	1.078	0.990	1.046	1.000	1.000						
2008	7.890	2,445	1.570	1.156	1.418	0.992	1.000							
2010	2.271	3.479	1.552	1.235	1.433	1.000								
2011	1.982	1.285	1.273	1.147	1.248	2								
2011	1.377	2,319	1.283	1.299										
2012	1.961	1.596	1.910	21200										
2014	1.973	1.569	1.510											
2015	1.394	105												
2013	1.554													
All Yr Avg	3.253	2.164	1.588	1.278	1.130	1.012	1.033	1.005	1.000	1.015	1.000	1.000	1.000	1,000
All Yr Avg Ex. H/L	3.118	2,131	1,513	1.244	1.120	1.006	1.005	1.003	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Avg	2.544	2.375	1.597	1.144	1.190	1,027	1.068	1.009	1.001	1.026	1.000	1.000	1.000	1.000
10 Yr Avg Ex. H/L	2.022	2.256	1.556	1.143	1.179	1.018	1.007	1.005	1.000	1.000	1.000	1.000	1,000	1.000
5 Yr Avg	1.737	2.049	1.518	1.183	1.225	1.005	1.124	1.012	1.000	1.053	1.000	1.000	1.000	1.000
5 Yr Avg Ex. H/L	1.776	1.828	1.469	1.180	1.233	0,997	1.000	1.003	1.000	1,000	1.000	1.000	1.000	1.000
3 Yr Avg	1.776	1.828	1.489	1.227	1.366	1.012	1.000	1.018	1.000	1.000	1.000	1,000	1.000	1.000
Prior	2.100	2.300	1.500	1.165	1.150	1.025	1.010	1.008	1.001	1.007	1.000	1.000	1.000	1.000
					4.				4 004	4.040	4 000	1.000	1 000	1.000
Selected	2.000	2.200	1.520	1.180	1.180	1.020	1.010	1.008	1.001 1.011	1.010 1.010	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000
LDFs	9.773	4.885	2.221	1.461	1.238	1.049	1.029	1.019	99.0%	99.0%	100.0%	100.0%	100.0%	100.0%
% Paid	10.2%	20.5%	45.0%	68.4%	80.8%	95.3%	97.2%	98.2%	39.∪%	22.0%	100.0%	100.070	100.076	200.070

Miami Valley Risk Management Association General Liability December 31, 2016 Paid Loss per Closed Claim at \$500K SIR

Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	180 2,335 4,443 1,500 1,936 9,150 982 1,845 2,958 7,137 3,903 4,627 1,127 4,215 8,214	192 2,335 4,443 1,500 1,936 9,150 9,150 2,958 7,137 3,903 4,627 1,127 4,215	204 2,335 4,443 1,500 1,936 9,250 9,820 1,845 2,958 7,137 3,903 4,627 1,127	216 2,335 4,443 1,500 1,936 9,150 9,82 1,845 2,958 7,137 3,903 4,627	228 2,335 4,443 1,500 1,936 9,150 982 1,845 2,958 7,137 3,903	240 2,335 4,443 1,500 1,936 9,150 982 1,845 2,958 7,137	Maturity (Age 252 2,335 4,443 1,500 1,936 9,150 982 1,845 2,958	264 2,335 4,443 1,500 1,936 9,150 982 1,845	276 2,335 4,443 1,500 1,936 9,150 982	288 2,335 4,443 1,500 1,936 9,150	300 2,335 4,443 1,500 1,936	312 2,335 4,443 1,500	324 2,335 4,443	336 2,335
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-215 1.000 1.000 1.000 1.000 0.989 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Age 240-252 1.000	to-Age Facto 252-264 1.000	rs 264-276	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-335 1.000	336-Ult
All Yr Avg Ail Yr Avg Ex. H/L 10 Yr Avg 10 Yr Avg Ex. H/L 5 Yr Avg 5 Yr Avg Prior Selected	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.001 1.000 1.001 1.000 1.000 1.000 1.000 1.000	0.999 1.000 0.999 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1,000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000	1.000 1.000 1.000	1,000
Selected LDFs % Paid	1.000 1.000 100.0%	1.000 1.000 100.0%	1,000	1.000	1.000	1.000 1.000 100.0%	1.000 100.0%	1.000 100.0%	1.000 100.0%	1,000 100.0%	1.000 100.0%	1.000 100.0%	1.000 100.0%	1.000 100.0%

Summary of Claim Counts

Accident Year	Closed Claims	Open Claims	Reported Claims	Indicated IBNR Claims	Selected Ultimate Claims
(1)	(2)	(3)	(4)	(5)	(6)
1989	89	0	89	0	89
1990	99	0	99	0	99
1991	56	0	56	0	56
1992	72	0	72	0	72
1993	93	0	93	0	93
1994	108	0	108	0	108
1995	85	0	85	0	85
1996	121	0	121	0	121
1997	99	0	99	0	99
1998	142	0	142	0	142
1999	142	0	142	0	142
2000	146	0	146	0	146
2001	118	0	118	0	118
2002	164	0	164	0	164
2003	148	0	148	0	148
2004	119	0	119	0	119
2005	128	0	128	0	128
2006	110	0	110	0	110
2007	143	0	143	0	143
2008	177	0	177	0	177
2009	117	0	117	0	117
2010	153	0	153	0	153
2011	184	2	186	0	186
2012	134	2	136	0	136
2013	154	5	159	1	160
2014	172	3	175	2	177
2015	138	6	144	4	148
2016	102	14	116	15	131
Total	3,513	32	3,545	22	3,567

Notes:

(2)-(4) Provided by MVRMA

(5) = (6) - (4)

(6) From Exhibit 20, Col (4)

Ultimate Claims Based on Reported Claim Development Method

Accident Year (1)	Cumulative Reported Claims (2)	Claim Development Factors (3)	Projected Ultimate Claims (4)
1989	89	1.000	89
1990	99	1.000	99
1991	56	1.000	56
1992	72	1.000	72
1993	93	1.000	93
1994	108	1.000	108
1995	85	1.000	85
1996	121	1.000	121
1997	99	1.000	99
1998	142	1.000	142
1999	142	1.000	142
2000	146	1.000	146
2001	118	1.000	118
2002	164	1.000	164
2003	148	1.000	148
2004	119	1.000	119
2005	128	1.000	128
2006	110	1.000	110
2007	143	1.000	143
2008	177	1.000	177
2009	117	1.000	117
2010	153	1.000	153
2011	186	1.001	186
2012	136	1.003	136
2013	159	1.005	160
2014	175	1.012	177
2015	144	1.029	148
2016	116	1.132	131
Total	3,545		3,567

- (2) Provided by MVRMA
- (3) From Exhibit 21
- (4) = $(2) \times (3)$

Reported Claim Counts

							Reported Cia	aim Counts						
Accident							Maturity (Age	in Months)						
Year	12	24	36	48	60	72	84	96	108	120	132	144	156 89	168 89
1989	78	87	88	89	89	89	89	89	89 99	89 99	89 99	89 99	99	99
1990	81	89 51	94 54	97 54	98 54	98 56	99 56	99 56	56	56	56	56	56	56
1991 1992	43 47	61	5 4 67	71	72	72	72	72	72	72	72	72	72	72
1993	70	83	89	90	91	93	93	93	93	93	93	93	93	93
1994	103	106	108	108	108	108	108	108	108	108	108	108	108	108
1995	73	78	84	85	85	85	85	85	85	85	85	85	85	85
1996	102	114	120	122	122	122	121	121	121	121	121	121	121 99	121
1997	85	94	99	99	99	99	99	99	99	99	99	99 142	142	99 142
1998	117	133	139	141	141	141	142	142	142 142	142 142	142 142	142	142	142
1999	122	133 138	141 143	141 143	141 146	142 146	142 146	142 146	142	142	142	146	146	146
2000	125 105	111	115	120	120	120	120	120	118	118	118	118	118	118
2001 2002	119	155	160	163	163	163	164	164	164	164	164	164	164	164
2003	122	142	144	145	145	148	148	148	148	148	148	148	148	148
2004	85	105	114	118	119	119	119	119	119	119	119	119	119	
2005	111	124	128	129	129	129	129	129	128	128	128	128		
2006	91	102	105	108	108	110	110	110	110	110	110			
2007	128	142	142	143	143	143 177	143 177	143 177	143 177	143				
2008	160	171	175	177 117	177 117	117	117	117	1//					
2009	102 133	113 148	117 151	152	153	153	153	11,						
2010 2011	172	181	185	185	186	186	200							
2012	121	135	136	136	136									
2013	137	156	159	159										
2014	158	174	175											
2015	137	144												
2016	116													
Accident						Age	-to-Age Facto	ors						
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1989	1.115	1.011	1.011	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.099	1.056	1.032	1.010	1.000	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.186	1.059	1.000	1.000	1.037	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.298	1.098	1.060	1.014	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000
1993	1.186	1.072	1.011	1.011	1.022	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000 1.000	1.000
1994	1.029	1.019	1.000	1.000	1.000	1.000	1.000 1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.068	1.077	1.012	1.000 1.000	1.000 1.000	1.000 0.992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996 1997	1.118 1.106	1.053 1.053	1.017 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.137	1.033	1.014	1.000	1,000	1.007	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000
1999	1.090	1.060	1.000	1,000 -	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.104	1.036	1.000	1.021	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.057	1.036	1.043	1.000	1.000	1.000	1.000	0.983	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.303	1.032	1.019	1.000	1.000	1.006	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000 1.000	1.000
2003	1.164	1.014	1.007	1.000	1.021	1.000	1.000	1.000	1.000	1.000 1.000	1.000 1.000	1.000	1.000	
2004	1.235	1.086	1.035	1.008 1.000	1.000 1.000	1,000 1.000	1.000 1.000	1.000 0.992	1.000 1.000	1.000	1.000	1.000		
2005 2006	1.117 1.121	1.032 1.029	1.029	1.000	1.019	1.000	1.000	1.000	1.000	1.000	21000			
2005	1.121	1.000	1.023	1,000	1.000	1.000	1.000	1.000	1.000					
2008	1.069	1.023	1.011	1.000	1.000	1.000	1.000	1.000						
2009	1.108	1.035	1.000	1,000	1.000	1.000	1.000							
2010	1.113	1.020	1.007	1.007	1.000	1.000								
2011	1.052	1.022	1.000	1.005	1.000									
2012	1.116	1.007	1,000	1.000										
2013	1.139	1.019	1.000											
2014	1.101	1.006												
2015	1.051													
All Yr Vol	1.117	1.034	1.011	1.003	1.004	1.001	1.000	0,999	1.000	1.000	1.000	1.000	1.000	1.000
All Yr Vol Ex. H/L	1.112	1.034	1.011	1.002	1.003	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol	1.095	1.019	1.008	1.002	1.003	1.001	1.000	0.998	1.000	1.000	1.000	1,000	1.000 1.000	1.000 1.000
10 Yr Vol Ex. H/L	1.095	1.019	1.007	1.002	1,002	1.000	1.000	0.999 0.999	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000	1.000
5 Yr Vol	1.090	1.015	1.001	1.003	1.000	1.000 1.000	1.000 1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000
5 Yr Vol Ex. H/L	1.086	1.016	1.000	1.002 1.004	1.000	1.000	1,000	1.000	1.000	1.000	1,000	1.000	1.000	1.000
3 Yr Vol Prior	1.097 1.110	1.011 1.020	1.000 1.008	1.004	1.002	1.001	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000
FEIOI	2.220	1.01.0	2.000					-						
Selected	1.100	1.017	1.007	1.002	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
LDFs	1.132	1.029	1.012	1.005	1.003	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
% Developed	88.3%	97.2%	98.8%	99.5%	99.7%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Reported Claim Counts

2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016														
Accident Year 1989 1990 1991 1992 1993 1994 1995 1995 1996 1997 1998 1999 2001 2002 2003 2004 2005 2007 2008 2009 2010 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-215 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Age 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	e-to-Age Facto 252-264 1.000 1.000 1.000 1.000 1.000 1.000 1.000	rs 264-275 1.000 1.000 1.000 1.000 1.000 1.000	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-336 1.000	336-Uit
10 Yr Vol 10 Yr Vol Ex. H/L 5 Yr Vol 5 Yr Vol Ex. H/L 3 Yr Vo! Prior Selected	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000

Closed Claim Counts

Accident							Naturity (Age							
Year	12	24	36	48	60	72	84	96	108	120	132	144 89	156 89	168 89
1989	61	77	81	88	88	88	89	89	89	89	89		89 99	99
1990	67	82	86	91	97	97	98	99 56	99 56	99 56	99 56	99 56	56	56
1991	38	45	49	52	53	54 70	56 71	71	72	72	72	72	72	72
1992	41	57	60	66 87	69 88	88	90	92	93	93	93	93	93	93
1993	55	72	82	108	107	107	108	108	108	108	108	108	108	108
1994	92	102	107	81	83	85	85	85	85	85	85	85	85	85
1995	57 88	74 107	79 114	117	120	120	120	121	121	121	121	121	121	121
1996	77	87	90	95	97	99	99	99	99	99	99	99	99	99
1997 1998	105	123	131	136	139	141	142	142	142	142	142	142	142	142
1999	112	125	130	135	137	142	142	142	142	142	142	142	142	142
2000	110	132	136	140	146	146	146	146	146	146	146	146	146	146
2001	86	98	106	114	117	118	118	118	118	118	118	118	118	118
2002	113	147	148	153	160	160	163	163	163	163	164	164	164	164
2003	112	132	138	138	143	146	148	148	148	148	148	148	148	148
2004	77	97	100	112	117	118	119	119	119	119	119	119	119	
2005	92	112	118	124	127	127	127	129	128	128	128	128		
2006	81	93	98	102	104	106	109	109	110	110	110			
2007	113	130	137	137	141	143	143	143	143	143				
2008	148	164	167	170	175	177	177	177	177					
2009	93	106	109	112	112	116	117	117						
2010	125	142	145	148	149	153	153							
2011	157	180	180	182	183	184								
2012	106	133	134	134	134									
2013	123	151	153	154										
2014	149	168	172											
2015	127	138												
2016	102													
Accident						Age-	to-Age Facto	's						
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1989	1.262	1.052	1.086	1.000	1.000	1.011	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.224	1.049	1.058	1.066	1.000	1.010	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.184	1.089	1.061	1.019	1.019	1.037	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.390	1.053	1,100	1.045	1.014	1.014	1,000	1.014	1.000	1.000	1.000	1.000	1,000	1.000
1993	1.309	1.139	1.061	1.011	1.000	1.023	1.022	1.011	1.000	1.000	1.000	1.000	1.000	1,000 1.000
1994	1.109	1.049	1.009	0.991	1.000	1.009	1,000	1.000	1.000	1.000	1.000 1.000	1,000	1,000 1.000	1.000
1995	1.298	1.068	1.025	1.025	1.024	1.000	1.000	1.000	1.000	1.000 1.000	1.000	1,000	1.000	1.000
1996	1.216	1.065	1.026	1.026	1.000	1.000 1.000	1.008	1.000 1.000	1.000	1,000	1.000	1.000	1.000	1.000
1997	1.130	1.034	1.056 1.038	1.021 1.022	1.021 1.014	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
1998	1.171 1.116	1.065 1.040	1,038	1.022	1.014	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999 2000	1.200	1.040	1.029	1.043	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.140	1.082	1.075	1.026	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.301	1.007	1.034	1.046	1.000	1.019	1.000	1,000	1.000	1.006	1.000	1.000	1.000	1.000
2003	1.179	1.045	1.000	1.036	1.021	1.014	1.000	1.000	1.000	1.000	1,000	1.000	1.000	
2004	1.260	1.031	1.120	1.045	1.009	1.008	1.000	1.000	1,000	1.000	1.000	1.000		
2005	1.217	1.054	1.051	1.024	1.000	1.000	1.016	0.992	1.000	1.000	1.000			
2006	1.148	1,054	1.041	1.020	1.019	1.028	1.000	1.009	1.000	1.000				
2007	1.150	1.054	1.000	1.029	1.014	1.000	1,000	1.000	1.000					
2008	1.108	1.018	1.018	1.029	1.011	1.000	1.000	1.000						
2009	1.140	1.028	1.028	1.000	1.036	1.009	1.000							
2010	1.136	1.021	1.021	1.007	1.027	1.000								
2011	1.146	1.000	1.011	1.005	1.005									
2012	1.255	1.008	1.000	1.000										
2013	1.228	1.013	1.007											
2014	1.128	1.024												
2015	1.087													
All Yr Vol	1.180	1.039	1.034	1.023	1,012	1.007	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000
All Yr Vol Ex. H/L	1.181	1.039	1.033	1.023	1.011	1.007	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol	1.150	1.025	1.025	1.019	1.013	1.007	1.001	1.000	1.000	1.001	1.000	1.000	1.000	1.000
10 Yr Vol Ex. H/L	1.147	1.025	1.020	1.019	1.013	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Vol	1.163	1.013	1.012	1.009	1.017	1.006	1.003	1.000	1.000	1.001	1.000	1.000	1.000	1.000
5 Yr Vol Ex. H/L	1.163	1.014	1.013	1.005	1.017	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 Yr Val	1.145	1.015	1.006	1.004	1.020	1.002	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000

Closed Claim Counts

Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	180 89 99 55 72 93 108 85 121 142 144 144 146 118 164	192 89 99 56 72 93 108 85 121 142 142 146 118	204 89 99 56 72 92 108 85 121 142 142 146	216 89 99 56 72 93 108 85 121 19 99 142 142	228 89 99 56 72 93 108 85 121 99 142	240 89 99 56 72 93 108 85 121 199	Maturity (Age 252 89 99 56 72 93 108 85 121	e in Months) 264 89 99 56 72 93 108 85	276 89 99 56 72 93 108	288 89 99 56 72 93	300 89 99 56 72	312 89 99 56	324 89 99	336 89
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 0.989 1.000 1.000 1.000 1.000 1.000 1.000	204-216 1.000 1.000 1.000 1.000 1.011 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Ag: 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	►to-Age Facto 252-264 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	264-276 1.000 1.000 1.000 1.000 1.000 1.000 1.000	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-336 1.000	336-Ult
Ali Yr Voi Ali Yr Voi Ex. H/L 10 Yr Voi 10 Yr Voi Ex. H/L 5 Yr Voi 5 Yr Voi Ex. H/L 3 Yr Voi	1.000 1.000 1.000 1.000 1.000 1.000 1.000	0.999 1.000 0.999 1.000 1.000 1.000	1.001 1.000 1.001 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000	1.000 1.000	1.000	1.000	

We Pinnacle Actuarial Resources, Inc.

Miami Valley Risk Management Association General Liability December 31, 2016

Loss Summary

les	Paid	(10)																		\$22,888	54,069	71,826	58,683	68,618	67,033	51,104	54,388	71,735	57,781	14,181	\$625,307
Deductibles	Incurred	(6)																		\$22,888	54,069	71,826	58,683	68,618	67,033	51,104	54,985	73,691	60,281	22,931	\$639,110
mits	Paid	(8)	\$207,853	439,863	84,015	139,376	850,979	106,065	156,790	357,926	706,526	554,289	657,094	164,560	497,423	1,347,177	269,762	511,964	857,801	915,795	312,120	856,672	1,137,677	972,613	316,697	281,284	536,112	375,369	129,660	65,365	\$13,808,828
\$500K Limits	Incurred	(7)	\$207,853	439,863	84,015	139,376	850,979	106,065	156,790	357,926	706,526	554,289	657,094	164,560	497,423	1,347,177	269,762	511,964	857,801	915,795	312,120	856,672	1,137,677	972,613	337,771	406,294	595,409	947,515	205,275	95,425	\$14,692,028
Limits	Paid	(9)	\$207,853	439,863	84,015	139,376	626'009	106,065	156,790	357,926	706,526	554,289	657,094	164,560	497,423	1,347,177	269,762	511,964	857,801	915,795	312,120	856,672	1,177,813	972,613	316,697	281,284	536,112	375,369	129,660	65,365	\$13,598,964
Retention Limits	Incurred	(5)	\$207,853	439,863	84,015	139,376	600,979	106,065	156,790	357,926	706,526	554,289	657,094	164,560	497,423	1,347,177	269,762	511,964	857,801	915,795	312,120	856,672	1,177,813	972,613	337,771	406,294	595,409	947,515	205,275	95,425	\$14,482,164
nits	Paid	(4)	\$207,853	439,863	84,015	139,376	1,207,079	106,065	156,790	357,926	1,331,066	554,289	657,094	164,560	497,423	1,566,330	269,762	511,964	857,801	915,795	312,120	856,672	1,177,813	1,036,784	316,697	281,284	536,112	375,369	129,660	65,365	\$15,112,927
Total Limits	Incurred	(3)	\$207,853	439,863	84,015	139,376	1,207,079	106,065	156,790	357,926	1,331,066	554,289	657,094	164,560	497,423	1,566,330	269,762	511,964	857,801	915,795	312,120	856,672	1,177,813	1,036,784	337,771	406,294	595,409	2,150,015	205,275	95,425	\$17,198,627
	Retention	(2)	\$250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	200,000	200,000	200,000	200,000	200,000	200,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	500,000	200,000	500,000	200,000	200,000	200,000	200,000	
Accident	Year	(1)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total

Notes: (2)-(10) Provided by MVRMA

Property and Auto Physical Damage Exhibit 1

Miami Valley Risk Management Association Property and Auto Physical Damage December 31, 2016

Summary of Loss Reserve Estimates Retained Limits

Estimated Total	Reserves	(2)	0\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26,565	140,424	\$166,989
Indicated	IBNR	(9)	0\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	932	52,399	\$53,332
380	Reserves	(2)	0\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0	0	0	0	25,632	88,025	\$113,657
Paid	Loss	(4)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	392,466	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	654,562	324,515	389,384	879,940	559,108	582,706	1,162,693	639,435	302,576	\$9,656,415
parritoul	Loss	(3)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	392,466	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	654,562	324,515	389,384	879,940	559,108	582,706	1,162,693	890'599	390,601	\$9,770,072
Selected	Loss	(2)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	392,466	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	654,562	324,515	389,384	879,940	559,108	582,706	1,162,693	000'999	443,000	\$9,823,404
+001:00	Year	(1)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total

From Exhibit 3, Col (10) Provided by MVRMA = (2) - (3) = (5) + (6) Notes: (2) (3)-(5) (6) (7)

Me Pinnacle Actuarial Resources, Inc.

Comparison of Ultimate Loss to Prior Ultimate Loss Retained Limits

Accident Year	Selected Ultimate Loss @12/31/2015	Selected Ultimate Loss @12/31/2016	Difference	Percent Change
(1)	(2)	(3)	(4)	(5)
	Å40444	6424444	ćo	0.00/
1989	\$124,141	\$124,141	\$0	0.0%
1990	32,734	32,734	0	0.0%
1991	75,626	75,626	0	0.0%
1992	63,858	63,858	0	0.0%
1993	63,660	63,660	0	0.0%
1994	96,833	96,833	0	0.0%
1995	85,639	85,639	0	0.0%
1996	92,901	92,901	0	0.0%
1997	225,205	225,205	0	0.0%
1998	135,150	135,150	0	0.0%
1999	392,466	392,466	0	0.0%
2000	130,204	130,204	0	0.0%
2001	505,931	505,931	0	0.0%
2002	369,496	369,496	0	0.0%
2003	265,463	265,463	0	0.0%
2004	229,621	229,621	0	0.0%
2005	369,470	369,470	0	0.0%
2006	497,206	497,206	0	0.0%
2007	405,891	405,891	0	0.0%
2008	654,562	654,562	0	0.0%
2009	324,515	324,515	0	0.0%
2010	389,384	389,384	0	0.0%
2011	879,940	879,940	0	0.0%
2012	559,108	559,108	0	0.0%
2013	582,706	582,706	0	0.0%
2014	1,200,000	1,162,693	(37,307)	-3.1%
2015	486,000	666,000	180,000	37.0%
2010	.55,255	,	, -	
Total	\$9,237,711	\$9,380,404	\$142,693	1.5%

- (2) From Pinnacle's analysis of unpaid loss & LAE at 12/31/2015
- (3) From Exhibit 3, Col (10)
- (4) = (3) (2)
- (5) = (4)/(2)

Provided by MVRMA From Exhibit 9.1, Col (4) From Exhibit 9.2, Col (4) From Exhibit 5, Col (4) From Exhibit 6, Col (4) From Exhibit 6, Col (8) From Exhibit 7, Col (7) From Exhibit 7, Col (7)

Notes:
(2)
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(6)
(7)
(8)

Miami Valley Risk Management Association Property and Auto Physical Damage December 31, 2016

Selected Ultimate Loss Retained Limits

	Selected	Ultimate	Loss	(10)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	392,466	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	654,562	324,515	389,384	879,940	559,108	582,706	1,162,693	000'999	443,000	\$9,823,404
	Average	Paid	Method	(6)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	392,466	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	654,562	324,515	389,384	879,940	559,108	582,706	1,162,693	647,744	477,760	\$9,839,908
nt	Average	Incurred	Method	(8)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	392,466	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	654,562	324,515	389,384	879,940	559,108	582,706	1,162,693	666,398	446,867	699'228'6\$
MVRMA's Loss Development	Case	Reserve	Method	(7)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	392,466	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	654,562	324,515	389,384	879,940	559,108	582,706	1,162,693	890'599	426,073	\$9,805,545
MVRM	Paid	Loss	Method	(9)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	392,466	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	654,562	324,515	389,384	879,940	559,108	582,706	1,162,693	645,190	442,684	\$9,802,278
	Incurred	Loss	Method	(5)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	392,466	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	654,562	324,515	389,384	879,940	559,108	582,706	1,162,693	890'599	429,661	\$9,809,132
opment	Paid	Loss	Method	(4)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	392,466	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	655,129	325,078	390,734	886,055	906'995	599,074	1,228,930	714,366	527,327	\$10,055,096
Industry Development	Incurred	Loss	Method	(3)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	392,466	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	654,734	324,686	389,792	881,786	561,457	587,612	1,182,355	687,752	474,206	\$9,905,875
	l		Retention	(2)	\$250,000	250,000	250,000	250,000	250,000	100,000	150,000	250,000	250,000	250,000	150,000	150,000	150,000	250,000	250,000	250,000	200,000	200,000	200,000	200,000	200,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	
		Accident	Year	(1)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total

126

Ultimate Loss Based on Incurred Loss Development Method Retained Limits

Accident Year	Cumulative Incurred Loss	Loss Development Factors	Projected Ultimate Loss
(1)	(2)	(3)	(4)
1989	\$124,141	1.000	\$124,141
1990	32,734	1.000	32,734
1991	75,626	1.000	75,626
1992	63,858	1.000	63,858
1993	63,660	1.000	63,660
1994	96,833	1.000	96,833
1995	85,639	1.000	85,639
1996	92,901	1.000	92,901
1997	225,205	1.000	225,205
1998	135,150	1.000	135,150
1999	392,466	1.000	392,466
2000	130,204	1.000	130,204
2001	505,931	1.000	505,931
2002	369,496	1.000	369,496
2003	265,463	1.000	265,463
2004	229,621	1.000	229,621
2005	369,470	1.000	369,470
2006	497,206	1.000	497,206
2007	405,891	1.000	405,891
2008	654,562	1.000	654,562
2009	324,515	1.000	324,515
2010	389,384	1.000	389,384
2011	879,940	1.000	879,940
2012	559,108	1.000	559,108
2013	582,706	1.000	582,706
2014	1,162,693	1.000	1,162,693
2015	665,068	1.000	665,068
2016	390,601	1.100	429,661
Total	\$9,770,072		\$9,809,132

- (2) Provided by MVRMA
- (3) From Exhibit 10
- (4) = $(2) \times (3)$

Ultimate Loss Based on Paid Loss Development Method Retained Limits

Accident Year	Cumulative Paid Loss	Loss Development Factors	Projected Ultimate Loss
(1)	(2)	(3)	(4)
1989	\$124,141	1.000	\$124,141
1990	32,734	1.000	32,734
1991	75,626	1.000	75,626
1992	63,858	1.000	63,858
1993	63,660	1.000	63,660
1994	96,833	1.000	96,833
1995	85,639	1.000	85,639
1996	92,901	1.000	92,901
1997	225,205	1.000	225,205
1998	135,150	1.000	135,150
1999	392,466	1.000	392,466
2000	130,204	1.000	130,204
2001	505,931	1.000	505,931
2002	369,496	1.000	369,496
2003	265,463	1.000	265,463
2004	229,621	1.000	229,621
2005	369,470	1.000	369,470
2006	497,206	1.000	497,206
2007	405,891	1.000	405,891
2008	654,562	1.000	654,562
2009	324,515	1.000	324,515
2010	389,384	1.000	389,384
2011	879,940	1.000	879,940
2012	559,108	1.000	559,108
2013	582,706	1.000	582,706
2014	1,162,693	1.000	1,162,693
2015	639,435	1.009	645,190
2016	302,576	1.463	442,684
Total	\$9,656,415		\$9,802,278

- (2) Provided by MVRMA
- (3) From Exhibit 11
- (4) $= (2) \times (3)$

Ultimate Loss Based on Case Reserve Development Method Retained Limits

Cumulative Accident Paid			Casa	Case Percent Developed							
Year	Retention	Loss	Reserves	Incurred	Paid	Reserve	Ultimate Loss				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)				
1989	\$250,000	\$124,141	\$0	100.0%	100.0%	100.0%	\$124,141				
1990	250,000	32,734	0	100.0%	100.0%	100.0%	32,734				
1991	250,000	75,626	0	100.0%	100.0%	100.0%	75,626				
1992	250,000	63,858	0	100.0%	100.0%	100.0%	63,858				
1993	250,000	63,660	0	100.0%	100.0%	100.0%	63,660				
1994	100,000	96,833	0	100.0%	100.0%	100.0%	96,833				
1995	150,000	85,639	0	100.0%	100.0%	100.0%	85,639				
1996	250,000	92,901	0	100.0%	100.0%	100.0%	92,901				
1997	250,000	225,205	0	100.0%	100.0%	100.0%	225,205				
1998	250,000	135,150	0	100.0%	100.0%	100.0%	135,150				
1999	150,000	392,466	0	100.0%	100.0%	100.0%	392,466				
2000	150,000	130,204	0	100.0%	100.0%	100.0%	130,204				
2001	150,000	505,931	0	100.0%	100.0%	100.0%	505,931				
2002	250,000	369,496	0	100.0%	100.0%	100.0%	369,496				
2003	250,000	265,463	0	100.0%	100.0%	100.0%	265,463				
2004	250,000	229,621	0	100.0%	100.0%	100.0%	229,621				
2005	200,000	369,470	0	100.0%	100.0%	100.0%	369,470				
2006	200,000	497,206	0	100.0%	100.0%	100.0%	497,206				
2007	200,000	405,891	0	100.0%	100.0%	1.00.0%	405,891				
2008	200,000	654,562	0	100.0%	100.0%	100.0%	654,562				
2009	200,000	324,515	0	100.0%	100.0%	100.0%	324,515				
2010	250,000	389,384	0	100.0%	100.0%	100.0%	389,384				
2011	250,000	879,940	0	100.0%	100.0%	100.0%	879,940				
2012	250,000	559,108	0	100.0%	100.0%	100.0%	559,108				
2013	250,000	582,706	0	100.0%	100.0%	100.0%	582,706				
2013	250,000	1,162,693	0	100.0%	100.0%	100.0%	1,162,693				
2015	250,000	639,435	25,632	100.0%	99.1%	100.0%	665,068				
2015	250,000	302,576	88,025	90.9%	68.4%	71.3%	426,073				
Total		\$9,656,415	\$113,657				\$9,805,545				

- (2)-(4) Provided by MVRMA

 - (5) Based on Exhibit 4, Col (3)(6) Based on Exhibit 5, Col (3)
 - (7) = [(5) -(6)] / [(1.0 (6)] (8) = (3) + [(4) / (7)]

Ultimate Loss Based on Incurred Loss per Reported Claim Development Method Retained Limits

		Cumulative	Loss	Drainatad	Selected	Projected
Accident		Incurred Loss per Reported	Loss Development	Projected Average	Ultimate	Ultimate
Year	Retention	Claim	Factors	Loss	Claims	Loss
	(2)	(3)	(4)	(5)	(6)	(7)
(1)	(2)	(3)	(-)	(5)	(0)	(*)
1989	\$250,000	\$7,302	1.000	\$7,302	17	\$124,141
1990	250,000	1,488	1.000	1,488	22	32,734
1991	250,000	2,801	1.000	2,801	27	75,626
1992	250,000	2,661	1.000	2,661	24	63,858
1993	250,000	2,274	1.000	2,274	28	63,660
1994	100,000	2,201	1.000	2,201	44	96,833
1995	150,000	1,259	1.000	1,259	68	85,639
1996	250,000	1,010	1.000	1,010	92	92,901
1997	250,000	2,559	1.000	2,559	88	225,205
1998	250,000	1,186	1.000	1,186	114	135,150
1999	150,000	2,548	1.000	2,548	154	392,466
2000	150,000	819	1.000	819	159	130,204
2001	150,000	3,862	1.000	3,862	131	505,931
2002	250,000	2,463	1.000	2,463	150	369,496
2003	250,000	1,435	1.000	1,435	185	265,463
2004	250,000	1,290	1.000	1,290	178	229,621
2005	200,000	2,186	1.000	2,186	169	369,470
2006	200,000	2,874	1.000	2,874	173	497,206
2007	200,000	2,490	1.000	2,490	163	405,891
2008	200,000	3,719	1.000	3,719	176	654,562
2009	200,000	1,876	1.000	1,876	173	324,515
2010	250,000	2,842	1.000	2,842	137	389,384
2011	250,000	4,782	1.000	4,782	184	879,940
2012	250,000	3,106	1.000	3,106	180	559,108
2013	250,000	3,448	1.000	3,448	169	5 82,706
2014	250,000	6,880	1.000	6,880	169	1,162,693
2015	250,000	3,935	1.002	3,943	169	666,398
2016	250,000	2,382	1.072	2,554	175	446,867
Total	-			\$2,794	3,518	\$9,827,669

- (2) Provided by MVRMA
- (3) Based on data provided by MVRMA
- (4) From Exhibit 12
- (5) = (3) \times (4)
- (6) From Exhibit 14, Col (6)
- $(7) = (5) \times (6)$

Ultimate Loss Based on Paid Loss per Closed Claim Development Method Retained Limits

Accident Year	Retention	Cumulative Paid Loss per Closed Claim	Loss Development Factors	Projected Average Loss	Selected Ultimate Claims	Projected Ultimate Loss
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1989	\$250,000	\$7,302	1.000	\$7,302	17	\$124,141
1990	250,000	1,488	1.000	1,488	22	32,734
1991	250,000	2,801	1.000	2,801	27	75,626
1992	250,000	2,661	1.000	2,661	24	63,858
1993	250,000	2,274	1.000	2,274	28	63,660
1994	100,000	2,201	1.000	2,201	44	96,833
1995	150,000	1,259	1.000	1,259	68	85,639
1996	250,000	1,010	1.000	1,010	92	92,901
1997	250,000	2,559	1.000	2,559	88	225,205
1998	250,000	1,186	1.000	1,186	114	135,150
1999	150,000	2,548	1.000	2,548	154	392,466
2000	150,000	819	1.000	819	159	130,204
2001	150,000	3,862	1.000	3,862	131	505,931
2002	250,000	2,463	1.000	2,463	150	369,496
2003	250,000	1,435	1.000	1,435	185	265,463
2004	250,000	1,290	1.000	1,290	178	229,621
2005	200,000	2,186	1.000	2,186	169	369,470
2006	200,000	2,874	1.000	2,874	173	497,206
2007	200,000	2,490	1.000	2,490	163	405,891
2008	200,000	3,719	1.000	3,719	176	654,562
2009	200,000	1,876	1.000	1,876	173	324,515
2010	250,000	2,842	1.000	2,842	137	389,384
2011	250,000	4,782	1.000	4,782	184	879,940
2012	250,000	3,106	1.000	3,106	180	559,108
2013	250,000	3,448	1.000	3,448	169	582,706
2014	250,000	6,880	1.000	6,880	169	1,162,693
2015	250,000	3,806	1.007	3,833	169	647,744
2016 Total	250,000	2,421	1.128	2,730 \$2,797	175 3,518	477,760 \$9,839,908

- (2) Provided by MVRMA
- (3) Based on data provided by MVRMA
- (4) From Exhibit 13
- $(5) = (3) \times (4)$
- (6) From Exhibit 14, Col (6)
- $(7) = (5) \times (6)$

Ultimate Loss Based on Incurred Loss Development Method Using Industry Factors Retained Limits

		Industry	
	Cumulative	Loss	Projected
Accident	Incurred	Development	Ultimate
Year	Loss	Factors	Loss
(1)	(2)	(3)	(4)
1989	\$124,141	1.000	\$124,141
1990	32,734	1.000	32,734
1991	75,626	1.000	75,626
1992	63,858	1.000	63,858
1993	63,660	1.000	63,660
1994	96,833	1.000	96,833
1995	85,639	1.000	85,639
1996	92,901	1.000	92,901
1997	225,205	1.000	225,205
1998	135,150	1.000	135,150
1999	392,466	1.000	392,466
2000	130,204	1.000	130,204
2001	505,931	1.000	505,931
2002	369,496	1.000	369,496
2003	265,463	1.000	265,463
2004	229,621	1.000	229,621
2005	369,470	1.000	369,470
2006	497,206	1.000	497,206
2007	405,891	1.000	405,891
2008	654,562	1.000	654,734
2009	324,515	1.001	324,686
2010	389,384	1.001	389,792
2011	879,940	1.002	881,786
2012	559,108	1.004	561,457
2013	582,706	1.008	587,612
2014	1,162,693	1.017	1,182,355
2015	665,068	1.034	687,752
2016	390,601	1.214	474,206
Total	\$9,770,072		\$9,905,875

- (2) Provided by MVRMA
- (3) Based on insurance industry development
- (4) = $(2) \times (3)$

Ultimate Loss Based on Paid Loss Development Method Using Industry Factors Retained Limits

		Industry	
	Cumulative	Loss	Projected
Accident	Paid	Development	Ultimate
Year	Loss	Factors	Loss
(1)	(2)	(3)	(4)
1989	\$124,141	1.000	\$124,141
1990	32,734	1.000	32,734
1991	75,626	1.000	75,626
1992	63,858	1.000	63,858
1993	63,660	1.000	63,660
1994	96,833	1.000	96,833
1995	85,639	1.000	85,639
1996	92,901	1.000	92,901
1997	225,205	1.000	225,205
1998	135,150	1.000	135,150
1999	392,466	1.000	392,466
2000	130,204	1.000	130,204
2001	505,931	1.000	505,931
2002	369,496	1.000	369,496
2003	265,463	1.000	265,463
2004	229,621	1.000	229,621
2005	369,470	1.000	369,470
2006	497,206	1.000	497,206
2007	405,891	1.000	405,891
2008	654,562	1.001	655,129
2009	324,515	1.002	325,078
2010	389,384	1.003	390,734
2011	879,940	1.007	886,055
2012	559,108	1.014	566,906
2013	582,706	1.028	599,074
2014	1,162,693	1.057	1,228,930
2015	639,435	1.117	714,366
2016	302,576	1.743	527,327
Total	\$9,656,415		\$10,055,096

- (2) Provided by MVRMA
- (3) Based on insurance industry development
- (4) = $(2) \times (3)$

Incurred Loss at \$250K SIR

						•		2. 92.00						
Accident						N	Aaturity (Age	in Months)						
Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168
1989	129,614	124,280	124,141	124,141	124,141	124,141	124,141	124,141	124,141	124,141	124,141	124,141	124,141 32,734	124,141 32,734
1990	35,099	36,757	36,757	32,734	32,734	32,734	32,734	32,734	32,734	32,734	32,734	32,734	75,626	75,626
1991	48,696	68,976	68,021	68,232	68,232	75,626	75,626	75,626	75,626	75,626 63,858	75,626 63,858	75,626 63,858	63,858	63,858
1992	92,696	65,630	63,858	63,858	63,858	63,858	63,858	63,858	63,858	63,660	63,660	63,660	63,660	63,660
1993	77,321	70,484	63,871	63,660	63,660	63,660	63,660	63,660	63,660 96,833	96,833	96,833	96,833	96,833	96,833
1994	97,749	91,568	96,834	96,023	96,833	96,833 85,639	96,833 85,639	96,833 85,639	85,639	85,639	85,639	85,639	85,639	85,639
1995	94,348	130,765	85,639	85,639	85,639 92,901	92,901	92,901	92,901	92,901	92,901	92,901	92,901	92,901	92,901
1996	108,016	92,901	92,901	92,901	225,205	225,205	225,205	225,205	225,205	225,205	225,205	225,205	225,205	225,205
1997	230,682	225,205	224,935	225,205 135,150	135,150	135,150	135,150	135,150	135,150	135,150	135,150	135,150	135,150	135,150
1998	132,322 489,714	135,150 495,092	135,150 492,466	492,466	492,466	492,466	492,466	492,466	492,456	492,466	492,466	492,466	492,466	492,466
1999 2000	144,984	130,204	130,204	130,204	130,204	130,204	130,204	130,204	130,204	130,204	130,204	130,204	130,204	130,204
2001	372,970	505,710	505,931	505,931	505,931	505,931	505,931	505,931	505,931	505,931	505,931	505,931	505,931	505,931
2002	337,524	364,735	369,940	369,496	369,496	369,496	369,496	369,496	369,496	369,496	369,496	369,496	369,496	369,496
2003	274,711	265,711	265,463	265,463	265,463	265,463	265,463	265,463	265,463	265,463	265,463	265,463	265,463	265,463
2004	236,522	229,621	229,621	229,621	229,621	229,621	229,621	229,621	229,621	229,621	229,621	229,621	229,621	
2005	410,159	369,470	369,470	369,470	369,470	369,470	369,470	369,470	369,470	369,470	369,470	369,470		
2006	393,270	497,210	497,210	497,210	497,210	497,210	497,210	497,210	497,206	497,206	497,206			
2007	257,082	405,890	405,890	405,890	405,890	405,890	405,890	405,891	405,891	405,891				
2008	708,253	704,562	704,562	704,562	704,562	704,562	704,562	704,562	704,562					
2009	327,630	324,516	324,516	324,516	324,516	324,515	324,515	324,515						
2010	354,134	389,384	389,384	389,384	389,384	389,384	389,384							
2011	888,222	879,940	879,940	879,940	879,940	879,940								
2012	549,819	560,758	559,608	559,108	559,108									
2013	433,542	566,557	582,706	582,706										
2014	1,223,786	1,202,519	1,176,859											
2015	438,921	665,068												
2016	390,601													
Accident		24.26	25.40	40.00	CO 73	Age- 72-84	to-Age Facto 84-96	rs 96-108	108-120	120-132	132-144	144-156	156-168	168-180
Year	12-24	24-36	36-48	48-60	60-72		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1989	0.959	0.999	1.000 0.891	1.000	1.000 1.000	1,000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.047	1.000	1.003	1.000	1.108	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.416	0.986				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1992	0.708	0.973 0.906	1.000 0.997	1.000 1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1993	0.912	1.058	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1994	0.937 1.386	0,655	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995 1996	0,860	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000
1997	0.976	0.999	1.001	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.021	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.011	0,995	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	0.898	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.356	1.000	1.000	1,000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
2002	1.081	1.014	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	0.967	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	
2004	0.971	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000		
2005	0.901	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000			
2006	1,264	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
2007	1.579	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
2008	0.995	1.000	1.000	1.000	1.000	1.000	1.000	1.000						
2009	0.990	1.000	1,000	1.000	1.000	1.000	1.000							
2010	1.100	1.000	1.000	1.000	1.000	1.000								
2011	0.991	1.000	1.000	1.000	1.000									
2012	1.020	0,998	0.999	1.000										
2013	1.307	1.029	1.000											
2014	0.983	0.979												
2015	1.515													
A II 37 1.7 - 1	1.080	0.994	0.999	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
All Yr Vol All Yr Vol Ex. H/L	1.080	0,994	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol	1.112	0,998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol Ex. H/L	1.112	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Vol	1.096	0.997	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Vol Ex. H/L	1,072	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000
3 Yr Vol	1.161	0.995	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1,000	1.000	1.000	1.000	1.000
Prior	1,070	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
11101	_,,,,													
Selected	1.100	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
LDFs	1.100	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000
% Incurred	90.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Incurred Loss at \$250K SIR

Accident Year 1988 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	180 124,141 32,734 75,626 63,858 63,660 98,833 85,639 92,901 125,250 492,466 130,204 505,931 369,496	192 124,141 32,734 75,626 63,858 63,660 96,833 85,633 92,901 125,205 135,150 492,466 130,204 505,931	204 124,141 32,734 75,626 63,858 63,660 96,833 85,633 92,901 225,205 135,150 492,466 130,204	216 124,141 32,734 75,626 63,858 63,660 96,833 85,639 92,901 125,205 135,150 492,466	228 124,141 32,734 75,626 63,858 63,660 96,833 85,639 92,901 225,205 135,150	240 124,141 32,734 75,626 63,858 63,660 96,833 85,639 92,901 225,205	Maturity (Age 252 124,141 32,734 75,626 63,650 96,833 85,639 92,901	264 124,141 32,734 75,626 63,858 63,660 96,833 85,639	276 124,141 32,734 75,626 63,858 63,660 96,833	288 124,141 32,734 75,626 63,858 63,660	300 124,141 32,734 75,626 63,858	312 124,141 32,734 75,626	324 124,141 32,734	336 124,141
Accident Vear 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-216 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Age 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000	-to-Age Facto 252-264	75 264-276 1.000 1.000 1.000 1.000 1.000 1.000	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-336 1.000	336-Ult
All Yr Vol All Yr Vol Ex. H/L 10 Yr Vol 10 Yr Vol Ex. H/L 5 Yr Vol 5 Yr Vol 7 Yr Vol Prior Selected LDFs % incurred	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 100.0%	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 100.0%	1.000 1.000 1.000 1.000 1.000 1.000 100.0%	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 100.0%	1.000 1.000 1.000 1.000 100.0%	1.000 1.000 100.0%

Paid Loss at \$250K SIR

							Paid Loss at	\$250K SIR						
Accident							/aturity (Age	in Months)						
Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168
1989	10,609	114,275	124,141	124,141	124,141	124,141	124,141	124,141	124,141	124,141	124,141	124,141	124,141	124,141
1990	30,499	36,756	36,756	32,734	32,734	32,734	32,734	32,734	32,734	32,734	32,734	32,734	32,734	32,734
1991	33,797	68,021	68,021	68,232	68,232	75,626	75,626	75,626	75,626	75,626	75,626	75,626	75,626	75,626
1992	23,506	63,858	63,858	63,858	63,858	63,858	63,858	63,858	63,858	63,858	63,858	63,858	63,858	63,858
1993	56,571	56,571	56,571	63,660	63,660	63,660	63,660	63,660	63,660	63,660	63,660	63,660	63,660	63,660
1994	85,569	91,568	96,834	96,023	96,833	96,833	96,833	96,833	96,833	96,833	96,833	96,833	96,833	96,833
1995	67,455	85,765	85,639	85,639	85,639	85,639	85,639	85,639	85,639	85,639	85,639	85,639	85,639	85,639
	82,416	92,901	92,901	92,901	92,901	92,901	92,901	92,901	92,901	92,901	92,901	92,901	92,901	92,901
1996					225,205	225,205	225,205	225,205	225,205	225,205	225,205	225,205	225,205	225,205
1997	159,932	225,205	224,935	225,205				135,150	135,150	135,150	135,150	135,150	135,150	135,150
1998	121,352	135,150	135,150	135,150	135,150	135,150	135,150	492,466	492,466	492,466	492,466	492,466	492,466	492,466
1999	232,722	492,466	492,466	492,466	492,466	492,466	492,466							
2000	89,084	130,204	130,204	130,204	130,204	130,204	130,204	130,204	130,204	130,204	130,204	130,204	130,204	130,204 505,931
2001	250,862	483,069	505,931	505,931	505,931	505,931	505,931	505,931	505,931	505,931	505,931	505,931	505,931	
2002	197,648	364,735	367,177	369,496	369,496	369,496	369,496	369,496	369,496	369,496	369,496	369,496	369,496	369,496
2003	243,339	265,711	265,463	265,463	265,463	265,463	265,463	265,463	265,463	265,463	265,463	265,463	265,463	265,463
2004	209,790	229,621	229,621	229,621	229,621	229,621	229,621	229,621	229,621	229,621	229,621	229,621	229,621	
2005	301,573	369,470	369,470	369,470	369,470	369,470	369,470	369,470	369,470	369,470	369,470	369,470		
2006	282,983	497,210	497,210	497,210	497,210	497,210	497,210	497,210	497,206	497,206	497,206			
2007	222,617	400,890	405,890	405,890	405,890	405,890	405,890	405,891	405,891	405,891				
2008	478,667	704,562	704,562	704,562	704,562	704,562	704,562	704,562	704,562					
2009	316,051	324,516	324,516	324,516	324,516	324,515	324,515	324,515						
2010	306,514	389,384	389,384	389,384	389,384	389,384	389,384							
2011	801,509	874,790	879,940	879,940	879,940	879,940								
2012	369,587	551,608	559,108	559,108	559,108									
2013	356,625	562,244	582,706	582,706	,									
2014	909,279	1,176,859	1,176,859	,-										
2015	264,349	639,435	-,-,-,											
2016	302,576	033,732												
2010	302,370													
Accident						Ape	to-Age Facto	rs						
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1989	10.772	1,086	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.205	1.000	0.891	1.000	1.000	1,000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000
	2.013	1.000	1.003	1.000	1.108	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
1991								1.000	1,000	1.000	1.000	1,000	1.000	1.000
1992	2.717	1.000	1.000	1.000	1.000	1.000	1.000						1.000	1,000
1993	1.000	1.000	1.125	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
1994	1.070	1.058	0.992	1.008	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000
1995	1.271	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.127	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.408	0.999	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.114	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	2.116	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.462	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000
2001	1.926	1.047	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.845	1.007	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1.092	0.999	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2004	1.095	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
2005	1,225	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1,000	1.000	1.000			
2006	1.757	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
2007	1,801	1.012	1.000	1.000	1.000	1,000	1.000	1.000	1.000					
2008	1.472	1.000	1.000	1.000	1.000	1.000	1.000	1.000						
2009	1.027	1.000	1.000	1.000	1.000	1,000	1.000							
2010	1.270	1.000	1.000	1.000	1.000	1.000								
2011	1.091	1.006	1.000	1.000	1.000	2,,,,,,								
2012	1.492	1.014	1.000	1.000										
2013	1.577	1.036	1.000	1.000										
		1.000	1.000											
2014	1.294	1.000												
2015	2.419													
Ali Yr Vol	1.449	1.009	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
		1.009	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000
All Yr Vol Ex. H/L	1.438				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol	1.421	1.007	1.000	1.000				1,000	1.000	1.000	1,000	1.000	1.000	1.000
10 Yr Vol Ex. H/L	1.384	1.004	1.000	1.000	1.000	1.000	1.000			1.000	1.000	1.000	1.000	1.000
5 Yr Vol	1.409	1.009	1.000	1,000	1.000	1.000	1.000	1.000	1.000				1.000	1.000
5 Yr Vol Ex. H/L	1.401	1.007	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000		
3 Yr Vol	1.554	1.012	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000
Prior	1.400	1.015	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
		4.5	4.0	4.000	1.000	1.000	1.000	1 000	1 000	1 000	1.000	1.000	1.000	1.000
Selected	1.450	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000 1.000	1.000 1.000	1.000 1.000
LDFs	1.463	1.009	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
% Paid	68.4%	99.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Paid Loss at \$250K SIR

							1 414 2033 41	\$250K 51K						
Accident Vear 1989 1990 1991 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008	180 124,141 32,734 75,626 63,858 63,660 96,833 85,639 92,901 225,205 135,150 492,466 130,204 505,931 369,496	192 124,141 32,734 75,626 63,858 63,660 96,833 85,639 92,901 225,205 135,150 492,466 130,204 505,931	204 124,141 32,734 75,626 63,858 63,660 96,833 85,639 92,901 225,205 135,150 492,466 130,204	216 124,141 32,734 75,626 63,858 63,660 96,833 85,639 92,901 225,205 135,150 492,466	228 124,141 32,734 75,626 63,858 63,660 96,833 85,639 92,901 225,205 135,150	240 124,141 32,734 75,626 63,858 63,660 96,833 85,639 92,901 225,205	Maturity (Age 252 124,141 32,734 75,626 63,858 63,650 96,833 85,639 92,901		276 124,141 32,734 75,626 63,858 63,660 95,833	288 124,141 32,734 75,625 63,858 63,660	300 124,141 32,734 75,626 63,858	312 124,141 32,734 75,626	324 124,141 32,734	336 124,141
2009 2010 2011 2012 2013 2014 2015 2016														
							to Aus Foston							
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-216 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Age 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	-to-Age Facto 252-264 1.000 1.000 1.000 1.000 1.000 1.000 1.000	rs 264-276 1.000 1.000 1.000 1.000 1.000 1.000 1.000	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-336 1.000	336-Ult
All Yr Vol Ail Yr Vol Ex. H/L 10 Yr Vol 10 Yr Vol Ex. H/L 5 Yr Vol 5 Yr Vol Ex. H/L 3 Yr Vol Prior	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1,000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1,000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000	1.000	
Selected LDFs % Paid	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1,000 1,000 100.0%	1,000 1,000 100.0%

Incurred Loss per Reported Claim at \$250K SIR

						Incurred Lo	ss per Repor	ted Claim at	S250K SIR					
Accident							Maturity (Age	in Months)						
Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168
1989	8,641	7,311	7,302	7,302	7,302	7,302	7,302	7,302	7,302	7,302	7,302	7,302	7,302	7,302
1990	1,671	1,671	1,671	1,488	1,488	1,488	1,488	1,488	1,488	1,488	1,488	1,488	1,488	1,488
1991	2,117	2,653	2,616	2,527	2,527	2,801	2,801	2,801	2,801	2,801	2,801	2,801	2,801	2,801
1992	4,414	2,735	2,661	2,661	2,661	2,661	2,661	2,661	2,661	2,661	2,661	2,661	2,661	2,661
1993	2,974	2,733	2,281	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274
1993										2,201	2,201	2,201	2,201	2,201
2001	2,327	2,129	2,201	2,182	2,201	2,201	2,201	2,201	2,201					
1995	1,474	1,923	1,259	1,259	1,259	1,259	1,259	1,259	1,259	1,259	1,259	1,259	1,259	1,259
1996	1,301	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010
1997	2,621	2,559	2,556	2,559	2,559	2,559	2,559	2,559	2,559	2,559	2,559	2,559	2,559	2,559
1998	1,214	1,186	1,186	1,186	1,186	1,186	1,186	1,186	1,186	1,186	1,186	1,186	1,186	1,186
1999	3,309	3,215	3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198
2000	923	819	819	819	819	819	819	819	819	819	819	819	819	819
2001	3,008	3,860	3,862	3,862	3,862	3,862	3,862	3,862	3,862	3,862	3,862	3,862	3,862	3,862
2002	2,482	2,432	2,466	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463
2003	1,570	1,436	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435
2004		1,430	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	2,100
	1,516								2,186	2,186	2,186	2,186	1,230	
2005	2,753	2,186	2,186	2,186	2,186	2,186	2,186	2,186				2,100		
2006	2,428	2,874	2,874	2,874	2,874	2,874	2,874	2,874	2,874	2,874	2,874			
2007	1,714	2,490	2,490	2,490	2,490	2,490	2,490	2,490	2,490	2,490				
2008	4,267	4,003	4,003	4,003	4,003	4,003	4,003	4,003	4,003					
2009	1,998	1,876	1,876	1,876	1,876	1,876	1,876	1,876						
2010	2,879	2,842	2,842	2,842	2,842	2,842	2,842							
2011	5,194	4,782	4,782	4,782	4,782	4,782								
2012	3,215	3,115	3,109	3,106	3,106	.,								
2013	2,744	3,352	3,448	3,448	5,200									
2014				3,440										
	7,508	7,115	6,964											
2015	2,778	3,935												
2016	2,382													
Accident							to-Age Facto							
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1989	0.846	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.000	1.000	0.891	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.253	0,986	0.966	1.000	1.108	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1992	0.620	0.973	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1993	0.846	0,906	0.997	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
		1.033	0.992	1.008	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1994	0.915													
1995	1.304	0.655	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	0.776	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	0.976	0.999	1.001	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
1998	0.977	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000
1999	0.972	0.995	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
2000	0.887	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000
2001	1.283	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	0.980	1.014	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	0.915	0.999	1.000	1,000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	
					1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	2.000	
2004	0.851	1.000	1.000	1.000						1.000		1.000		
2005	0.794	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000			
2006	1.184	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000				
2007	1.453	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000					
2008	0.938	1,000	1.000	1.000	1.000	1.000	1.000	1.000						
2009	0.939	1.000	1.000	1.000	1.000	1.000	1.000							
2010	0.987	1.000	1.000	1.000	1.000	1.000								
2011	0.921	1,000	1.000	1.000	1.000									
2012	0.969	0.998	0.999	1.000										
2013	1.222	1.029	1.000	2.000										
		0.979	1.000											
2014	0.948	0.979												
2015	1.417													
								4		4 000	4.000	4 000	4 000	4.000
All Yr Avg	1.006	0.983	0.994	1.000	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
All Yr Avg Ex. H/L	1.004	0.995	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Avg	1.098	1.001	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Avg Ex. H/L	1.075	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000
5 Yr Avg	1.095	1.001	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
5 Yr Avg Ex. H/L	1.046	0.999	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000
3 Yr Avg	1.195	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000
Prior	1.020	1.002	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Frior	1.020	1,003	1.000	1.000	1.000	1,000	1.000	1.000	1.500	1.000	1.000	1.000	1.000	1.000
	4.070	1.000	1.000	1.000	1.000	1 000	1 000	1.000	1 000	1 000	1.000	1 000	1 000	1.000
Selected	1.070	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
LDFs	1.072	1,002	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
% Incurred	93.3%	99.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Incurred Loss per Reported Claim at \$250K SIR

						incurred L	oss per kepor	ted Claim at	\$25UK SIK					
Accident							Maturity (Ago							
Year	180	192	204	216	228	240	252	264	276	288	300	312	324	336
1989 1990	7,302 1,488	7,302 1,488	7,302 1,488	7,302	7,302	7,302	7,302	7,302	7,302	7,302	7,302	7,302	7,302	7,302
1991	2,801	2,801	2,801	1,488 2,801	1,488 2,801	1,488 2,801	1,488 2,801	1,488	1,488	1,488	1,488	1,488	1,488	
								2,801	2,801	2,801	2,801	2,801		
1992	2,661	2,661	2,661	2,661	2,661	2,661	2,661	2,661	2,661	2,661	2,661			
1993	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274				
1994 1995	2,201 1,259	2,201	2,201	2,201	2,201	2,201	2,201	2,201	2,201					
	1,259	1,259	1,259	1,259	1,259	1,259	1,259	1,259						
1996		1,010	1,010	1,010	1,010	1,010	1,010							
1997	2,559	2,559	2,559	2,559	2,559	2,559								
1998 1999	1,186	1,186	1,186	1,186	1,186									
2000	3,198 819	3,198	3,198	3,198										
2001	3,862	819 3,862	819											
2002	2,463	3,002												
2003	2,403													
2003														
2005														
2005														
2007														
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2020														
Accident						Age	to-Age Facto	rs						
Year	180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-Ult
1989	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	
1990	1.000	1.000	1.000	1.000	1,000	1,000	1.000	1.000	1.000	1.000	1.000	1.000		
1991	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
1992	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000				
1993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						
1995	1.000	1.000	1.000	1.000	1.000	1.000	1.000							
1996	1,000	1.000	1.000	1.000	1.000	1.000								
1997	1.000	1.000	1.000	1.000	1.000									
1998	1,000	1.000	1.000	1.000										
1999	1.000	1.000	1.000											
2000	1.000	1.000												
2001	1.000													
2002														
2003														
2004														
2005														
2006														
2007														
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
All Yr Avg	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	
All Yr Avg Ex. H/L	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
10 Yr Avg	1.000	1.000	1.000	1.000										
10 Yr Avg Ex. H/L	1.000	1.000	1.000	1.000										
5 Yr Avg	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
5 Yr Avg Ex. H/L	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
3 Yr Avg	1.000	1.000	1.000	1,000	1,000	1.000	1.000	1,000	1.000	1.000	1.000			
Prior	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	
Selected	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000
LDFs	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
% Incurred	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100,0%	100.0%

Paid Loss per Closed Claim at \$250K SIR

						Paid Lo	ss per Closed	Claim at \$25	OK SIH					
Accident						1	Maturity (Age	in Months)						
Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168
1989	1,061	7,618	7,302	7,302	7,302	7,302	7,302	7,302	7,302	7,302	7,302	7,302	7,302	7,302
1990	1,794	1,750	1,750	1,488	1,488	1,488	1,488	1,488	1,488	1,488	1,488	1,488	1,488	1,488
1991	1,988	2,834	2,616	2,527	2,527	2,801	2,801	2,801	2,801	2,801	2,801	2,801	2,801	2,801
1992	1,959	2,776	2,661	2,661	2,661	2,661	2,661	2,661	2,661	2,661	2,661	2,661	2,661	2,661
1993	2,571	2,263	2,020	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274
1994	2,377	2,129	2,201	2,182	2,201	2,201	2,201	2,201	2,201	2,201	2,201	2,201	2,201	2,201
	1,297	1,261	1,259	1,259	1,259	1,259	1,259	1,259	1,259	1,259	1,259	1,259	1,259	1,259
1995						1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010
1996	1,177	1,010	1,010	1,010	1,010									
1997	2,104	2,559	2,556	2,559	2,559	2,559	2,559	2,559	2,559	2,559	2,559	2,559	2,559	2,559
1998	1,226	1,186	1,186	1,186	1,186	1,186	1,186	1,186	1,186	1,186	1,186	1,186	1,186	1,186
1999	1,790	3,219	3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198
2000	718	819	819	819	819	819	819	819	819	819	819	819	819	819
2001	2,345	3,716	3,862	3,862	3,862	3,862	3,862	3,862	3,862	3,862	3,862	3,862	3,862	3,862
2002	1,647	2,432	2,464	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463
2003	1,644	1,436	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435
2004	1,601	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	
2005	2,338	2,186	2,186	2,186	2,186	2,186	2,186	2,186	2,186	2,186	2,186	2,186	•	
2005	2,211	2,874	2,874	2,874	2,874	2,874	2,874	2,874	2,874	2,874	2,874	-,		
2007	1,810	2,475	2,490	2,490	2,490	2,490	2,490	2,490	2,490	2,490	-,			
				4,003	4,003	4,003	4,003	4,003	4,003	2,450				
2008	2,884	4,003	4,003						4,003					
2009	2,150	1,876	1,876	1,876	1,876	1,876	1,876	1,876						
2010	3,226	2,842	2,842	2,842	2,842	2,842	2,842							
2011	5,644	4,780	4,808	4,782	4,782	4,782								
2012	2,738	3,082	3,124	3,106	3,106									
2013	2,702	3,347	3,448	3,448										
2014	7,160	7,005	6,964											
2015	2,185	3,806												
2016	2,421	-,												
2010	2,721													
Accident						Age	to-Age Facto	rs						
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1989	7.181	0.959	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990	0.976	1.000	0.850	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
			0.966	1.000	1.108	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000
1991	1.426	0.923						1.000	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.417	0.958	1.000	1.000	1.000	1.000	1.000							
1993	0.880	0.893	1.125	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000
1994	0.896	1.033	0.992	1.008	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	0.972	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	0.858	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.216	0.999	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	0.967	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.798	0.994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.140	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.585	1.039	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1,000
2002	1.476	1.013	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	0.874	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	2.000
	0.806	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2004												1.000		
2005	0.935	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
2006	1.300	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1,000				
2007	1.367	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
2008	1.388	1.000	1.000	1.000	1.000	1.000	1.000	1.000						
2009	0.872	1.000	1.000	1.000	1.000	1.000	1.000							
2010	0.881	1,000	1.000	1.000	1.000	1.000								
2011	0.847	1.006	0.995	1,000	1.000									
2012	1.126	1.014	0.994	1.000										
2013	1.239	1.030	1.000											
2014	0.978	0.994	2.000											
2015	1.742	0,554												
2013	1.742													
All Yr Avg	1.376	0.995	0.997	1.000	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
All Yr Avg Ex. H/L	1.166	0.997	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Avg	1.174	1.005	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	1.174	1.003	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Avg Ex. H/L											1.000	1.000	1.000	1.000
5 Yr Avg	1.186	1.009	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	1.000
5 Yr Avg Ex. H/L	1.114	1.006	0.998	1.000	1.000	1,000	1,000	1.000	1.000	1.000	1.000			
3 Yr Avg	1.320	1.013	0.996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
Prior	1.090	1.010	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
			4.000		4.000	1.000	1.000	1.000	4 000	1 000	1.000	4 000	1 000	1 000
Selected	1.120	1.007	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
LDFs	1.128	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000
% Paid	88.7%	99.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Paid Loss per Closed Claim at \$250K SIR

						Paid Lo	ss per closed	Claim at \$25	UK SIK					
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008	180 7,302 1,488 2,801 2,661 2,274 2,201 1,259 1,010 2,559 1,186 3,198 819 3,862 2,463	192 7,302 1,488 2,801 2,661 2,774 2,201 1,259 1,010 2,559 1,186 3,198 819 3,862	204 7,302 1,488 2,861 2,764 2,274 2,201 1,259 1,010 2,559 1,186 3,198 819	216 7,302 1,488 2,861 2,764 2,201 1,259 1,010 2,559 1,186 3,198	228 7,302 1,488 2,801 2,661 2,774 2,201 1,259 1,010 2,559 1,186		ss per Losed 252 7,302 1,488 2,801 2,661 2,274 2,201 1,259 1,010		276 7,302 1,488 2,801 2,661 2,774 2,201	288 7,302 1,488 2,801 2,661 2,274	300 7,302 1,488 2,801 2,661	312 7,302 1,488 2,801	324 7,302 1,488	336 7,302
2009 2010 2011 2012 2013 2014 2015 2016														
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-216 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Age 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	to-Age Facto 252-264 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	75 264-276 1.000 1.000 1.000 1.000 1.000 1.000	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-336 1.000	336-Ult
All Yr Avg All Yr Avg Ex. H/L 10 Yr Avg 10 Yr Avg Ex. H/L 5 Yr Avg 5 Yr Avg Ex. H/L 3 Yr Avg Prior	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1,000 1,000 1,000 1,000 1,000 1,000	1,000 1,000 1,000 1,000 1,000 1,000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1,000	1.000	
Selected LDFs % Paid	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1,000 1.000 100.0%	1.000 1.000 100.0%

Summary of Claim Counts

Accident Year	Closed Claims	Open Claims	Reported Claims	Indicated IBNR Claims	Selected Ultimate Claims
(1)	(2)	(3)	(4)	(5)	(6)
1000	17	0	17	0	17
1989 1990	17 22	0 0	22	0	22
	22 27		27	0	22 27
1991	24	0 0	24	0	24
1992 1993	28	0	28	0	28
1993 1994	28 44	0	44	0	20 44
	68	0	68	0	68
1995			92	0	92
1996	92 88	0 0	92 88	0	92 88
1997 1998	88 114	0	114	0	114
	154	0	154	0	154
1999			154	0	159
2000	159 131	0 0	131	0	131
2001			150	0	150
2002	150	0 0	185	0	185
2003	185		178	0	178
2004	178	0		0	1/8 169
2005	169	0	169		
2006	173	0	173	0	173
2007	163	0	163	0	163
2008	176	0	176	0	176
2009	173	0	173	0	173
2010	137	0	137	0	137
2011	184	0	184	0	184
2012	180	0	180	0	180
2013	169	0	169	0	169
2014	169	0	169	0	169
2015	168	1	169	0	169
2016	125	39	164	11	175
Total	3,467	40	3,507	11	3,518

Notes:

(2)-(4) Provided by MVRMA

(5) = (6) - (4)

(6) From Exhibit 15, Col (4)

Ultimate Claims Based on Reported Claim Development Method

Accident Year	Cumulative Reported Claims	Claim Development Factors	Projected Ultimate Claims
(1)	(2)	(3)	(4)
1989	17	1.000	17
1990	22	1.000	22
1991	27	1.000	27
1992	24	1.000	24
1993	28	1.000	28
1994	44	1.000	44
1995	68	1.000	68
1996	92	1.000	92
1997	88	1.000	88
1998	114	1.000	114
1999	154	1.000	154
2000	159	1.000	159
2001	131	1.000	131
2002	150	1.000	150
2003	185	1.000	185
2004	178	1.000	178
2005	169	1.000	169
2006	173	1.000	173
2007	163	1.000	163
2008	176	1.000	176
2009	173	1.000	173
2010	137	1.000	137
2011	184	1.000	184
2012	180	1.000	180
2013	169	1.000	169
2014	169	1.000	169
2015	169	1.000	169
2016	164	1.070	175
Total	3,507		3,518

- (2) Provided by MVRMA
- (3) From Exhibit 16
- (4) = $(2) \times (3)$

Reported Claim Counts

							neporteu c	iaiii counta						
Accident							Maturity (Ae	e in Months)						
Year	12	24	36	48	60	72	84	96	108	120	132	144	156	158
1989	15	17	17	17	17	17	17	17	17	17	17	17	17	17
1990	21	22	22	22	22	22	22	22	22	22	22	22	22	22
1991	23	26	26	27	27	27	27	27	27	27	27	27	27	27
1992	21	24	24	24	24	24	24	24	24	24	24	24	24	24
1993	26	28	28	28	28	28	28	28	28	28	28	28	28	28
1994	42	43	44	44	44	44	44	44	44	44	44	44	44	44
1995	64	68	68	68	68	68	68	68	68	68	68	68	68	68
1996	83	97	92	92	92	92	92	92	92	92	92	92	92	92
			88	88	88	88	88	88	88	88	88	88	88	88
1997	88	88									114	114	114	
1998	109	114	114	114	114	114	114	114	114	114	154		154	114 154
1999	148	154	154	154	154	154	154	154	154	154		154		
2000	157	159	159	159	159	159	159	159	159	159	159	159	159	159
2001	124	131	131	131	131	131	131	131	131	131	131	131	131	131
2002	136	150	150	150	150	150	150	150	150	150	150	150	150	150
2003	1.75	185	185	185	185	185	185	185	185	185	185	185	185	185
2004	156	178	178	178	178	178	178	178	178	178	178	178	178	
2005	149	169	169	169	169	169	169	169	169	169	169	169		
2006	162	173	173	173	173	173	173	173	173	173	173			
2007	150	163	163	163	163	163	163	163	163	163				
2008	166	176	176	176	176	176	176	176	176					
2009	164	173	173	173	173	173	173	173						
2010	123	137	137	137	137	137	137							
2011	171	184	184	184	184	184								
2012	171	180	180	180	180									
2013	158	169	169	169										
2014	163	169	169											
2015	158	169												
2016	164													
2025														
Accident						Ag	e-to-Age Fact	ors						
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1989	1.133	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.048	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000
1991	1.130	1.000	1.038	1,000	1.000	1.000	1.000	1.000	1,000	1,000	1.000	1.000	1.000	1.000
1992	1.143	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1993	1.077	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000
1994	1.024	1.023	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.063	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.108	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
				1.000	1.000	1.000	1,000	1,000	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.046	1.000	1.000 1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1,000
1999	1.041			1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.013	1,000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
2001	1.056	1.000	1.000											
2002	1.103	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1.057	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	
2004	1.141	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
2005	1.134	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000			
2006	1.068	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
2007	1.087	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
2008	1.060	1.000	1.000	1.000	1.000	1.000	1.000	1.000						
2009	1.055	1.000	1.000	1.000	1.000	1.000	1.000							
2010	1.114	1.000	1.000	1.000	1.000	1.000								
2011	1.075	1.000	1.000	1.000	1.000									
2012	1.053	1.000	1,000	1.000										
2013	1.070	1,000	1.000											
2014	1.037	1.000												
2015	1.070													
All Yr Vol	1.070	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1,000	1,000	1.000	1.000
All Yr Vol Ex. H/L	1.071	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000
10 Yr Vol	1.067	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol Ex. H/L	1.067	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000
5 Yr Vol	1.061	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Vol Ex. H/L	1.064	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000
3 Yr Vol	1.058	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Prior	1.070	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
. 1101				2.00-										
Selected	1.070	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
LDFs	1.070	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000
% Developed	93.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
70 Bereiopeu														

Reported Claim Counts

							Meported C	iaim counts						
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	180 17 22 27 24 28 44 46 88 92 88 114 154 159 131 150	192 17 22 27 24 28 44 68 92 88 114 154 159 131	204 17 22 27 7 24 28 44 46 8 91 88 114 154	216 17 22 27 24 28 44 46 88 92 88 114 154	228 17 22 27 24 28 44 68 92 88 114	240 17 22 27 24 28 44 68 92 88	Maturity (Ag 252 17 22 27 24 28 44 46 88 92	e in Months) 264 17 22 27 24 28 44 68	276 17 22 27 24 28 44	288 17 22 27 24 28	300 17 22 27 24	312 17 22 27	324 17 22	336 17
Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	180-192 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	192-204 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	204-216 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	216-228 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	228-240 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	Ag 240-252 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	e-to-Age Fact 252-264 1.000 1.000 1.000 1.000 1.000 1.000 1.000	075 264-276 1.000 1.000 1.000 1.000 1.000 1.000	276-288 1.000 1.000 1.000 1.000 1.000	288-300 1.000 1.000 1.000 1.000	300-312 1.000 1.000 1.000	312-324 1.000 1.000	324-336 1.000	336-Ult
10 Yr Vol Ex. H/L 5 Yr Vol 5 Yr Vol Ex. H/L 3 Yr Vol	1.000 1.000 1.000 1.000 1.000	1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1,000 1,000 1,000 1,000 1,000 1,000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000	1.000	
Selected LDFs % Develaped		1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%	1.000 1.000 100.0%

Closed Claim Counts

							Closed Class	n Counts						
Accident							Maturity (Age							
Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168
1989	10	15	17	17	17	17	17	17	17	17	17	17	17	17
1990	17	21	21	22	22	22	22	22	22	22	22	22	22	22
1991	17	24	26	27	27	27	27	27	27	27	27	27	27	27
1992	12	23	24	24	24	24	24	24	24	24	24	24	24	24
1993	22	25	28	28	28	28	28	28	28	28	28	28	28	28
1994	36	43	44	44	44	44	44	44	44	44	44	44	44	44
1995	52	68	68	68	68	68	68	68	68	68	68	68	68	68
1996	70	92	92	92	92	92	92	92	92	92	92	92	92	92
1997	76	88	88	88	88	88	88	88	88	88	88	88	88	88
1998	99	114	114	114	114	114	114	114	114	114	114	114	114	114
1999	130	153	154	154	154	154	154	154	154	154	154	154	154	154
2000	124	159	159	159	159	159	159	159	159	159	159	159	159	159
2001	107	130	131	131	131	131	131	131	131	131	131	131	131	131
2002	120	150	149	150	150	150	150	150	150	150	150	150	150	150
2003	148	185	185	185	185	185	185	185	185	185	185	185	185	185
2004	131	178	178	178	178	178	178	178	178	178	178	178	178	
2005	129	169	169	169	169	169	169	169	169	169	169	169		
2006	128	173	173	173	173	173	173	173	173	173	173			
2007	123	162	163	163	163	163	163	163	163	163				
2008	166	176	176	176	176	176	176	176	176					
2009	147	173	173	173	173	173	173	173						
2010	95	137	137	137	137	137	137							
2011	142	183	183	184	184	184								
2012	135	179	179	180	180									
2013	132	168	169	169										
2014	127	168	169											
2015	121	168												
2016	125													
A: -i 6							4- A FA							
Accident	42.24	24.26	26.40	40.60	60.70		to-Age Factor		100 100	420 422	100 444	444.456	456.460	150 100
Year	12-24	24-36	36-48 1.000	48-60 1.000	60-72 1.000	72-84	84-96	96-108 1.000	108-120	120-132	132-144	144-156	156-168	168-180 1.000
1989	1.500	1.133				1.000	1.000		1.000	1.000	1.000	1.000	1.000	
1990	1.235	1.000	1.048	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000
1991	1.412	1.083	1.038	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.917	1.043	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1,000	1.000
1993	1.136	1.120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1994	1.194	1.023	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1,000	1.000	1,000
1995	1.308	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.314	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.158	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.152	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.177	1.007	1,000	1,000	1,000	1.000	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000
2000	1.282	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.215	1.008	1.000	1,000	1,000	1.000	1,000	1.000	1,000	1.000	1.000	1.000	1.000	1.000
2002	1.250	0.993	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1,250	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2004	1.359	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
2005	1,310	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000			
2006	1.352	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
2007	1.317	1.006	1.000	1.000	1.000	1,000	1.000	1,000	1.000					
2008	1.060	1.000	1.000	1.000	1.000	1.000	1.000	1.000						
2009	1.177	1.000	1.000	1.000	1.000	1.000	1.000							
2010	1.442	1.000	1.000	1.000	1.000	1.000								
2011	1.289	1.000	1.005	1.000	1.000									
2012	1.326	1.000	1.006	1.000										
2013	1.273	1.006	1.000											
2014	1.323	1.006												
2015	1.388													
All Yr Vol	1.271	1.004	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000	1,000
All Yr Vol Ex. H/L	1.282	1.004	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol	1.282	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10 Yr Vol Ex, H/L	1.302	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1,000	1.000
5 Yr Vol	1.318	1.002	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Vol Ex. H/L	1.312	1.002	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 Yr Vol	1.326	1.004	1.004	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Closed Claim Counts

Accident Year 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003	180 17 22 27 24 28 44 68 92 88 114 154 159	192 17 22 27 24 28 44 68 92 88 114 154 159 131	204 17 22 27 24 28 44 68 92 88 114 154	216 17 22 27 24 28 44 68 92 88 114 154	228 17 22 27 24 28 44 68 92 88 114	240 17 22 27 24 28 44 68 92 88	Maturity (Age 252 17 22 27 24 28 44 68 92	in Months) 264 17 22 27 24 28 44 68	276 17 22 27 7 24 28 44	288 17 22 27 24 28	300 17 22 27 24	312 17 22 27	324 17 22	336 17
2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016														
Accident Year	180-192	192-204	204-216	216-228	228-240	Age- 240-252	-to-Age Facto 252-264	rs 264-276	276-288	288-300	300-312	312-324	324-336	336-Ult
1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000	1.000	1.000	
All Yr Vol All Yr Vol Ex. H/L 10 Yr Vol 10 Yr Vol Ex. H/L 5 Yr Vol 5 Yr Vol Ex. H/L 3 Yr Vol	1,000 1,000 1,000 1,000 1,000 1,000	1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 3.000	1,000 1,000 1,000 1,000 1,000 1,000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000	1.000	2.000	2.000	

Property and Auto Physical Damage Exhibit 18

Miami Valley Risk Management Association Property and Auto Physical Damage December 31, 2016

Loss Summary

oles	Paid	(8)																		\$103,904	101,827	134,525	119,127	87,270	127,474	92,455	110,192	103,894	91,939	82,038	\$1,157,643
Deductibles	Incurred	(2)																		\$103,904	101,827	134,525	119,127	87,270	127,474	92,455	110,192	103,894	92,439	125,431	\$1,198,536
Limits	Paid	(9)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	392,466	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	654,562	324,515	389,384	879,940	559,108	582,706	1,162,693	639,435	302,576	\$9,656,415
Retention Limits	Incurred	(2)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	392,466	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	654,562	324,515	389,384	879,940	559,108	582,706	1,162,693	890'599	390,601	\$9,770,072
nits	Paid	(4)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	541,763	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	774,978	324,515	389,384	2,092,816	559,108	582,706	1,176,859	639,435	302,576	\$11,153,171
Total Limits	Incurred	(3)	\$124,141	32,734	75,626	63,858	63,660	96,833	85,639	92,901	225,205	135,150	541,763	130,204	505,931	369,496	265,463	229,621	369,470	497,206	405,891	774,978	324,515	389,384	2,092,816	559,108	582,706	1,176,859	890'599	390,601	\$11,266,828
	Retention	(2)	\$250,000	250,000	250,000	250,000	250,000	100,000	150,000	250,000	250,000	250,000	150,000	150,000	150,000	250,000	250,000	250,000	200,000	200,000	200,000	200,000	200,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	
Accident	Year	(1)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	* 2008	2009	2010	2011 *	2012	2013	2014	2015	2016	Total

Pinnacle Actuarial Resources, Inc.

Notes: (2)-(8) (*)

Retentions apply to indemnity and ALAE; the deductible is \$2,500 per occurrence Provided by MVRMA 2008 retained losses reflect capping a wind storm totaling \$320,356 2011 retained losses reflect capping a hail storm totaling \$628,004

Miami Valley Risk Management Association Statistical Section December 31, 2016

This section of Miami Valley Risk Management's comprehensive annual financial report provides users with additional historical perspective, context, and detail to assist in using the information in the financial statements, notes to financial statements and required supplementary information to understand and assess the Association's overall financial health.

Contents	<u>Page</u>
Financial Trends Information (Schedules 1, 2 & 3)	150 - 152
These schedules contain trend information to help the reader	
understand and assess how the Association's financial position has	
changed over time.	
Revenue Capacity Information (Schedule 4)	153
This schedule contains information to help the reader understand	
the sources of the Association's revenues.	
Demographic and Economic Information (Schedules 5-27)	154 - 179
These schedules contain information related to the demographics	
of the region as well as the Association's members'	
exposures, which determine each member's annual contribution.	
These schedules are intended to assist the reader in understanding	
the changing environment of the Association and to provide	
comparisons among its members.	
Operating Information (Schedule 28)	180
This schedule contains information about the Association's	
operations and resources to help the reader understand how the	
information in the financial report relates to the services the	
Association provides and the activities it performs.	
Note: The Association has no debt, and therefore, provides no schedules relate	ed to debt.

Sources: Unless otherwise noted, the information in these schedules is derived from the audited annual financial statements for the relevant year.

Miami Valley Risk Management Association Net Position by Component Last Ten Years

Schedule 1

Year Ended December 31

	2007		2008	2009	2010	2011	2012	2013	2014	2015	2016
Invested in capital assets	\$ 12,060	\$	11,136	\$ 10,400	\$ 10,299	\$ 9,621	\$ 19,641	\$ 17,192	\$ 11,747	\$ 8,756	\$ 6,395
Unrestricted	9,204,897	1	10,869,421	11,774,165	11,504,656	12,359,793	12,783,463	\$ 11,216,080	\$ 11,275,275	\$ 10,575,137	\$ 11,187,936
Total Net Position	\$ 9,216,957	\$ 1	10,880,557	\$ 11,784,565	\$ 11,514,955	\$ 12,369,414	\$ 12,803,104	\$ 11,233,272	\$ 11,287,022	\$ 10,583,893	\$ 11,194,331

Note: Accounting standards require that net position be reported in three components in the financial statements: invested in capital assets net of related debt, restricted and unrestricted. The Association does not have any assets "restricted" by outside parties or by law through constitutional provisions or enabling legislation. The "unrestricted" assets are assets that do not meet the definition of "restricted" or "invested in capital assets net of related debt."

Source: Audited Financial Statements for the years 2007-2016

Miami Valley Risk Management Association Changes in Net Position Last Ten Years Schedule 2

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EXPENSES:										
Claim expenses										
Incurred claims and claim adjustment expenses	\$1,658,674	\$ 1,876,350	\$ 2,004,526	\$ 1,195,748	\$ 2,080,913	\$ 1,182,409	\$ 1,010,964	\$ 1,892,603	\$ 651,209	\$ 1,890,342
Reinsurance/insurance premiums	832,277	739,537	695,576	753,793	761,789	807,647	870,249	878,317	885,468	864,407
Members' dividends		14,680	369,300	1,901,982	-	1,276,154	3,254,320	1,325,803	2,389,527	51,712
Total claim expense	2,490,951	2,630,567	3,069,402	3,851,523	2,842,702	3,266,210	5,135,533	4,096,723	3,926,204	2,806,461
Total general and administrative expenses	658,624	653,618	668,721	677,469	691,571	733,355	751,099	757,719	758,871	826,140
Total operating expenses	3,149,575	3,284,185	3,738,123	4,528,992	3,534,273	3,999,565	5,886,632	4,854,442	4,685,075	3,632,601
REVENUES:										
Operating revenues										
Members' contributions	4,074,713	4,001,211	3,837,608	3,947,859	4,027,567	3,965,398	4,139,860	4,173,334	4,208,593	4,211,279
Claims deductibles	221,280	249,892	225,728	176,920	229,751	169,168	195,194	251,166	214,597	188,899
Other	31,063	1,654	131,146	18,700	26,620	36,482	24,862	37,437	39,109	93,488
Total operating revenues	4,327,056	4,252,757	4,194,482	4,143,479	4,283,938	4,171,048	4,359,916	4,461,937	4,462,299	4,493,666
Non-operating revenues										
Gain/Loss on disposal of capital assets	(261)	(23)			(151)	(580)	(265)	-	166	(304)
Interest income	574,338	564,578	225,581	41,066	104,281	75,136	55,996	119,888	151,016	201,828
Unrealized gain/loss on investment	261,812	130,473	222,068	74,837	664	187,651	(98,847)	326,367	(389,946)	(452,151)
Total non-operating revenues	835,889	695,028	447,649	115,903	104,794	262,207	(43,116)	446,255	(238,764)	(250,627)
Total revenues	5,162,945	4,947,785	4,642,131	4,259,382	4,388,732	4,433,255	4,316,800	4,908,192	4,223,535	4,243,039
CHANGES IN NET POSITION:										
Increase (decrease) in net position	2,013,370	1,663,600	904,008	(269,610)	854,459	433,690	(1,569,832)	53,750	(461,540)	610,438

Source: Audited Financial Statements for the years 2007-2016

Miami Valley Risk Management Association
Loss Development Report-Comparison of Dollar Losses and Claims Counts by Loss Year - As of December 31, 2016
Last 10 Years

Schedule 3

Loss Experience After:	12 Months	24 Months	36 Months	48 Months	60 Months	72 Months	84 Months	96 Months	108 Months	120 Months		
Loss Year/Members' Loss Fund Contribution			Tota	l amount incur	red followed by	y number of cla	nims/open claim	ns (1)			Balance in Loss Fund 12/31/16	Paid to Date 12/31/16
Loss Year 19 12/31/06-12/31/07 20 Member Cities	\$414,230 (338/49)	\$733,273 (402/16)	\$937,377 (404/5)	\$1,001,350 (404/5)	\$1,005,084 (404/2)	\$993,837 (404/0)	\$993,837 (404/0)	\$993,837 (404/0)	\$993,837 (404/0)	\$993,837 (404/0)	\$0 - LY 19 Closed	\$993,837
Loss Year 20 12/31/07-12/31/08 20 Member Cities	\$1,079,122 (396/66)	\$1,070,393 (423/8)	\$1,709,126 (427/9)	\$1,761,917 (429/7)	\$1,778,973 (429/2)	\$1,768,118 (429/0)	\$1,768,118 (429/0)	\$1,768,118 (429/0)	\$1,768,118 (429/0)		\$0 - LY 20 Closed	\$1,768,118
Loss Year 21 12/31/08-12/31/09 20 Member Cities	\$432,941 (320/36)	\$581,765 (343/6)	\$857,095 (347/8)	\$1,159,198 (347/5)	\$1,605,343 (347/5)	\$1,560,680 (347/1)	\$1,533,450 (347/0)	\$1,533,450 (347/0)			\$0 - LY 21 Closed	\$1,533,450
Loss Year 22 12/31/09-12/31/10 20 Member Cities	\$519,228 (331/40)	\$689,893 (363/7)	\$1,141,553 (366/6)	\$1,391,993 (367/4)	\$1,481,047 (368/4)	\$1,587,679 (368/0)	\$1,587,679 (368/0)				\$0 - LY 22 Closed	\$1,587,679
Loss Year 23 12/31/10-12/31/11 20 Member Cities	\$2,908,228 (416/51)	\$2,657,347 (439/4)	\$2,422,620 (443/6)	\$2,422,096 (443/3)	\$2,474,416 (444/3)	\$2,518,318 (444/2)					\$1,517,904	\$2,497,244
Loss Year 24 12/31/11-12/31/12 20 Member Cities	\$664,220 (337/57)	\$810,718 (366/3)	\$889,541 (368/3)	\$964,041 (368/2)	\$1,003,672 (368/2)						\$1,781,920	\$878,662
Loss Year 25 12/31/12-12/31/13 20 Member Cities	\$729,736 (360/43)	\$952,440 (371/9)	\$1,180,592 (374/6)	\$1,421,688 (374/5)							\$1,429,096	\$1,353,603
Loss Year 26 12/31/13- 12/31/14 20 Member Cities	\$1,480,995 (395/46)	\$1,626,822 (421/8)	\$3,431,215 (422/3)								\$1,364,733	\$1,656,569
Loss Year 27 12/31/14- 12/31/15 20 Member Cities	\$626,239 (344/53)	\$947,321 (364/7)									\$1,965,565	\$845,574
Loss Year 28 12/31/15- 12/31/16 20 Member Cities (1) Incurred losses inclu	\$577,160 (349/56)	Inima Grada P	a long a live	aut aum aus an	ud all alaine		t an an al river				\$2,268,397	\$418,856

⁽¹⁾ Incurred losses include both paid claims (including loss adjustment expenses) and all claims reserves against open claims.

Year Ended December 31

Member	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Beavercreek	\$192,914	\$210,804	\$221,747	\$221,919	\$235,484	\$247,239	\$243,516	\$272,287	\$252,044	\$404,225
Bellbrook	\$55,108	\$54,062	\$46,591	\$42,485	\$43,061	\$54,946	\$74,118	\$77,140	\$69,985	\$58,945
Blue Ash	\$324,304	\$286,612	\$276,742	\$262,775	\$227,704	\$240,172	\$256,961	\$274,384	\$242,578	\$270,782
Centerville	\$181,220	\$186,677	\$219,474	\$239,595	\$247,794	\$192,074	\$198,140	\$182,291	\$183,871	\$194,763
Englewood	\$139,682	\$162,794	\$171,505	\$231,831	\$205,979	\$145,508	\$157,223	\$142,257	\$143,500	\$122,470
Indian Hill	\$156,700	\$162,540	\$103,124	\$84,708	\$98,718	\$116,972	\$114,673	\$135,918	\$124,962	\$102,159
Kettering	\$476,047	\$471,654	\$463,568	\$513,606	\$480,720	\$488,029	\$527,445	\$569,468	\$504,942	\$510,029
Madeira	\$113,523	\$79,197	\$34,126	\$47,158	\$47,529	\$50,156	\$51,720	\$37,293	\$37,718	\$35,798
Mason	\$267,167	\$266,403	\$260,169	\$284,894	\$314,081	\$316,748	\$358,149	\$346,946	\$304,519	\$252,994
Miamisburg	\$322,594	\$284,384	\$218,096	\$188,032	\$174,104	\$204,148	\$232,959	\$214,458	\$227,484	\$248,201
Montgomery	\$133,538	\$90,392	\$83,948	\$105,152	\$116,047	\$123,881	\$131,749	\$114,304	\$120,712	\$104,255
NAWA ¹	\$6,506	\$8,283	\$25,089	\$23,071	\$24,422	\$26,426	\$7,939	\$12,481	\$11,835	\$11,018
Piqua	\$305,486	\$280,378	\$266,853	\$315,950	\$276,213	\$321,935	\$308,575	\$370,336	\$342,528	\$312,389
Sidney	\$279,257	\$257,875	\$242,884	\$262,532	\$276,769	\$274,799	\$297,323	\$275,604	\$291,276	\$267,186
Springdale	\$153,388	\$157,826	\$134,413	\$144,575	\$141,082	\$133,556	\$150,283	\$142,950	\$157,690	\$155,822
Tipp City	\$134,170	\$139,507	\$110,289	\$114,577	\$94,419	\$113,611	\$132,256	\$148,587	\$194,349	\$263,477
Troy	\$307,797	\$267,486	\$231,814	\$233,605	\$248,487	\$253,633	\$271,031	\$272,050	\$276,511	\$304,759
Vandalia	\$167,535	\$205,064	\$179,998	\$182,625	\$185,520	\$210,005	\$213,809	\$208,679	\$186,839	\$165,571
West Carrollton	\$110,773	\$118,681	\$127,426	\$117,440	\$99,912	\$87,456	\$104,785	\$104,806	\$149,097	\$152,266
Wilmington	\$173,597	\$209,851	\$254,970	\$303,332	\$265,297	\$229,142	\$230,042	\$237,165	\$257,999	\$199,029
Wyoming	\$73,405	\$97,240	\$98,285	\$107,990	\$144,226	\$144,962	\$137,163	\$123,930	\$93,154	\$99,813
Total	\$4,074,711	\$3,997,710	\$3,771,111	\$4,027,852	\$3,947,568	\$3,975,398	\$4,199,859	\$4,263,334	\$4,173,593	\$4,235,951

Note 1: Beginning in 2007, NAWA, a joint venture water authority shared by Tipp City and Vandalia, was included as a separate entity for the purpose of calculating premiums. Source: Association's internal records

Last 8 Years

MVRMA is a consortium of municipalities located in southwest Ohio. Core cities for the region are Dayton and Cincinnati. Information for the Dayton MSA and the Cincinnati MSA provides an indication of the demographic and economic condition of the region.

DAYTON MSA	<u>2016</u>	<u>2015</u>
Population:	*	800,909
Total Personal Income (thousands \$):	*	\$42,707
Per Capita Personal Income:	*	\$34,204,726
GDP (million \$):	%	\$39,206
Wage and Salary Jobs:	%	389,565
Unemployment Rate:	4.2%	4.5%

Ten Largest Employers (employee count and %):

Ten Eurgest Employers (employee count una 70).						
	Count	%		Count	%	
Wright Patterson Air Force Base	27,585		Wright Patterson Air Force Base	26,270	6.74%	
Premier Health Partners	13,500		Premier Health Partners	13,500	3.47%	
Kettering Health Network	8,288		Kettering Health Network	8,259	2.12%	
Montgomery County	4,389		Montgomery County	4,343	1.11%	
Kroger Co.	4,267		Kroger Co.	4,335	1.11%	
Wright State University	3,715		Miami University	3,655	0.94%	
Miami University	3,685		LexisNexis	3,000	0.77%	
Sinclair Community College	3,206		Honda of America	2,800	0.72%	
LexisNexis	3,000		Wright State University	2,469	0.63%	
Honda of America	2,850		University of Dayton	2,453	0.63%	

CINCINNATI MSA	<u>2106</u>	<u>2015</u>
Population:	*	2,157,719
Total Personal Income (thousands \$):	*	\$101,960,460
Per Capita Personal Income:	*	\$47,254
GDP (million \$):	*	\$127,057
Wage and Salary Jobs:	*	1,077,899
Unemployment Rate:	3.8%	4.3%

Ten Largest Employers (employee count and %):

	Count	<u>%</u>		Count	<u>%</u>
Kroger Co.	20,000		Kroger Co.	21,646	2.01%
University of Cincinnati	15,000		University of Cincinnati	16,016	1.49%
Cincinnati Children's Hospital	12,000		Cincinnati Children's Hospital	14,944	1.39%
Proctor & Gamble	12,000		TriHealth Inc	11,800	1.09%
TriHealth Inc.	10,000		Proctor & Gambe	11,000	1.02%
UC Health	8,000		UC Health	10,000	0.93%
GE Transportation	7,500		GE Aviation	7,800	0.72%
St. Elizabeth Healthcare	7,000		Mercy Health - Cincinnati	7,500	0.70%
Fifth Third Bank	7,000		St. Elizabeth Healthcare	7,479	0.69%
			Fifth Third Bancorp	6,882	0.64%

^{*} This information is not yet available

Miami Valley Risk Management Association Demographic Statistics Last 8 Years Schedule 5

DAYTON MSA	<u>2014</u>	<u>2013</u>
Population:	800,836	802,489
Total Personal Income (thousands \$):	33,143,730	\$32,382,822
Per Capita Personal Income:	41,386	\$40,353
GDP (thousands \$):	38,178,000	\$37,534,000
Wage and Salary Jobs:	383,380	378,185
Unemployment Rate:	5.8%	7.8%

Ten Largest Employers (employee count and %):

	Count	%		Count	%
Wright Patterson Air Force Base	27,500	7.17%	Wright Patterson Air Force Base	29,000	7.67%
Premier Health Partners	13,500	3.52%	Premier Health Partners	14,765	3.90%
Kettering Health Network	7,115	1.86%	Kettering Health Network	7,000	1.85%
Kroger Company	5,582	1.46%	Kroger Company	4,950	1.31%
Montgomery County	4,328	1.13%	Montgomery County	3,884	1.03%
Miami University	3,564	0.93%	LexisNexis	3,600	0.95%
Wright State University	3,303	0.86%	Miami University	3,313	0.88%
LexisNexis	3,200	0.83%	Sinclair College	2,613	0.69%
Sinclair Community College	2,601	0.68%	Honda of America	2,500	0.66%
Honda of America	2,600	0.68%	Wright State University	2,403	0.64%

CINCINNATI MSA	<u>2014</u>	<u>2013</u>
Population:	2,149,449	2,150,524
Total Personal Income (thousands \$):	\$98,613,244	\$93,882,332
Per Capita Personal Income:	\$45,878	\$43,923
GDP (thousands \$):	121,407,000	\$119,090,000
Wage and Salary Jobs:	\$1,507,998	\$1,040,070
Unemployment Rate:	5.4%	7.2%

Ten Largest Employers (employee count and %):

Ten Largest Employers (employee count and 70).						
	Count	%		Count	%	
Kroger Company	17,000	1.13%	Kroger Company	17,000	1.63%	
University of Cincinnati	15,162	1.01%	University of Cincinnati	15,162	1.46%	
Procter & Gamble Co.	14,000	0.93%	Procter & Gamble Co.	14,000	1.35%	
Cincinnati Children's Hospital	12,057	0.80%	Cincinnati Children's Hospital	12,057	1.16%	
TriHealth Inc.	8,898	0.59%	TriHealth Inc.	8,898	0.86%	
Mercy Health Partners	8,550	0.57%	Mercy Health Partners	8,550	0.82%	
Archdiocese of Cincinnati	8,000	0.53%	Archdiocese of Cincinnati	8,000	0.77%	
GE Aviation	7,300	0.48%	GE Aviation	7,300	0.70%	
Wal-Mart Stores	6,932	0.46%	Wal-Mart Stores	6,932	0.67%	
St. Elizabeth Healthcare	6,839	0.45%	St. Elizabeth Healthcare	6,839	0.66%	

DAYTON MSA	<u>2012</u>	<u>2011</u>
Population:	803,185	802,970
Total Personal Income (thousands \$):	\$31,933,183	\$31,082,885
Per Capita Personal Income:	\$39,758	\$38,710
GDP (thousands \$):	\$37,211,000	\$35,776,000
Wage and Salary Jobs:	378,169	374,633
Unemployment Rate:	7.8%	9.4%

Ten Largest Employers (employee count and %):

	Count	%		Count	%
Wright Patterson Air Force Base	27,400	7.25%	Wright Patterson Air Force Base	27,400	7.31%
Premier Health Partners	14,548	3.85%	Premier Health Partners	14,135	3.77%
Kettering Health Network	5,496	1.45%	Kettering Health Network	5,029	1.34%
Kroger Co.	4,950	1.31%	Montgomery County	4,559	1.22%
Montgomery County	4,363	1.15%	Kroger Co.	4,100	1.09%
LexisNexis	3,400	0.90%	LexisNexis	3,100	0.83%
Sinclair Community College	2,726	0.72%	Sinclair Community College	2,726	0.73%
Dayton City Schools	2,574	0.68%	Dayton Public Schools	2,574	0.69%
AK Steel Holding Corp.	2,400	0.63%	Wright State University	2,417	0.65%
Honda of America Manufacturing	2,400	0.63%	AK Steel Holding Corp.	2,400	0.64%
			Honda of America Manufacturing	2,400	0.64%

CINCINNATI MSA	<u>2012</u>	<u>2011</u>
Population:	2,128,603	2,138,038
Total Personal Income (thousands \$):	92,431,519	88,297,133
Per Capita Personal Income:	\$43,454	\$40,918
GDP (thousands \$):	\$115,124,000	\$108,509,000
Wage and Salary Jobs:	1,027,637	1,013,214
Unemployment Rate:	7.4%	8.9%

Ten Largest Emloyers (employee count and %):

	Count	%		Count	%
Kroger Company	20,646	2.01%	Kroger Co.	19,000	1.88%
University of Cincinnati	15,329	1.49%	University of Cincinnati	15,374	1.52%
Cincinnati Children's Hospital	12,564	1.22%	Procter & Gamble Co.	12,500	1.23%
Procter & Gamble Co.	12,000	1.17%	Cincinnati Children's Hospital	12,332	1.22%
TriHealth Inc.	10,400	1.01%	TriHealth Inc.	10,197	1.01%
Mercy Heath Partners	8,940	0.87%	Mercy Health	8,817	0.87%
UC Health	8,670	0.84%	Archdiocese of Cincinnati	7,500	0.74%
GE Aviation	7,500	0.73%	GE Aviation	7,400	0.73%
St. Elizabeth Healthcare	7,251	0.71%	St. Elizabeth Healthcare	7,300	0.72%
Fifth Third Bancorp	7,180	0.70%	Fifth Third Bankcorp	7,063	0.70%

Miami Valley Risk Management Association Demographic Statistics Last 8 Years

Schedule 5

DAYTON MSA	<u>2010</u>
Population:	801,899
Total Personal Income (thousands \$):	\$29,319,944
Per Capita Personal Income:	\$36,563
GDP (thousands \$):	\$34,271,000
Wage and Salary Jobs:	369,829
Unemployment Rate:	11.0%

Ten Largest Employers (employee count and %):

2009 798,895 \$28,659,908 \$35,874 \$33,234,000 373,351 11.3%

	Count	%		Count	%
Wright Patterson Air Force Base	25,000	6.76%	Wright Patterson Air Force Base	25,000	6.70%
Premier Health Partners	14,070	3.80%	Premier Health Partners	14,334	3.84%
Kettering Health Network	5,452	1.47%	Kettering Health Network	5,630	1.51%
Kroger Co. Montgomery County	4,800 4,595	1.30% 1.24%	Montgomery County Honda of America Manufacturing	4,635 3,000	1.24% 0.80%
LexisNexis	3,000	0.81%	Kroger Co.	3,000	0.80%
Sinclair Community College	2,720	0.74%	LexisNexis	3,000	0.80%
Honda of America Manufacturing Dayton Public Schools	2,710 2,574	0.73% 0.70%	Dayton Public Schools Sinclair Community College	2,674 2,650	0.72% 0.71%
AK Steel Corp.	2,400	0.65%	Wright State University	2,279	0.61%

CINCINNATI MSA 2009 2010 Population: 2,132,415 2,123,378 81,507,977 **Total Personal Income (thousands \$):** 82,796,790 \$38,332 Per Capita Personal Income: \$39,105 **GDP** (thousands \$): \$104,538,000 \$100,626,000 Wage and Salary Jobs: 1,005,942 1,020,410 **Unemployment Rate:** 9.9% 9.5%

Ten Largest Employers (employee count and %):

	Count	%	(Count	%
Kroger Co.	17,000	1.69%	Kroger Co.	17,000	1.67%
University of Cincinnati	15,162	1.51%	University of Cincinnati	15,340	1.50%
Procter & Gamble	14,000	1.39%	Procter & Gamble	13,000	1.27%
Cincinnati Children's Hospital	12,057	1.20%	Cincinnati Children's Hospital	11,385	1.12%
TriHealth Inc.	9,898	0.98%	Hlth Alliance of Greater Cinn.	10,000	0.98%
Mercy Health Partners	8,550	0.85%	TriHealth	9,875	0.97%
Archdiocese of Cincinnati	8,000	0.80%	Archdiocese of Cincinnati	8,000	0.78%
GE Aviation	7,300	0.73%	Walmart Stores	7,375	0.72%
Walmart Stores	6,932	0.69%	Mercy Health Partners SW Ohio	7,316	0.72%
St. Elizabeth Healthcare	6,839	0.68%	Fifth Third Bancorp	7,219	0.71%

Note: This report was added to the CAFR in 2007. Information for previous years was not available.

Sources: US Census Bureau, Bureau of Economic Analysis, Ohio Dept. of Jobs and Family Services, The Dayton Business Journal, REDI Cincinnati, and The City of Blue Ash Economic Development

Member City	2010 Population	# Sworn FT Police	# Other Full-Time	# Titled Vehicles	Insurable Property Values	NOE	Avg. Annual Adjusted Losses	Pool Contribution Factors
Beavercreek	45,193	49	84	107	\$34,236,842	\$19,378,444	\$114,445	8.82000%
Bellbrook	6,943	12	21	29	\$14,381,106	\$4,850,570	\$10,768	1.41382%
Blue Ash	12,114	32	100	109	\$96,760,953	\$31,950,901	\$63,400	6.47038%
Centerville	23,999	40	78	87	\$36,227,816	\$17,754,223	\$35,777	4.65665%
Englewood	13,465	20	49	62	\$32,410,510	\$11,570,295	\$22,670	2.93688%
Indian Hill	5,785	20	54	62	\$26,377,682	\$12,891,852	\$16,205	2.45155%
Kettering	56,163	81	290	245	\$179,251,621	\$61,549,195	\$65,033	12.20225%
Madeira	8,726	12	11	20	\$5,212,559	\$3,390,139	\$1,548	0.85713%
Mason	30,712	42	141	140	\$132,122,628	\$38,044,980	\$12,809	6.06973%
Miamisburg	20,181	35	95	105	\$48,293,033	\$21,180,125	\$62,190	5.93213%
Montgomery	10,251	22	43	44	\$26,774,775	\$11,925,188	\$17,922	2.49961%
NAWA	-	0	4	1	\$14,740,428	\$287,066	\$2,166	0.26390%
Piqua	20,522	34	157	162	\$99,149,309	\$47,488,995	\$54,907	7.48396%
Sidney	21,229	36	149	153	\$80,469,787	\$24,562,121	\$48,047	6.40037%
Springdale	11,223	33	76	78	\$40,343,050	\$16,215,558	\$27,036	3.72883%
Tipp City	9,689	19	49	84	\$36,375,267	\$23,526,968	\$83,711	5.75257%
Troy	25,058	43	141	111	\$83,275,967	\$29,243,228	\$67,444	7.28310%
Vandalia	15,246	31	106	104	\$58,382,095	\$20,699,768	\$15,674	3.96840%
West Carrollton	13,143	22	44	64	\$30,933,346	\$11,436,574	\$40,289	3.64198%
Wilmington	12,520	21	114	126	\$75,583,201	\$17,710,188	\$35,691	4.78043%
Wyoming	8,428	16	31	33	\$29,508,384	\$8,915,723	\$23,742	2.38632%
MVRMA Totals	370,590	620	1837	1926	\$1,180,810,359	\$434,572,101	\$821,474	100.00000%

Notes:

- 1. The data is as of 8/31/15 unless otherwise noted.
- "Avg. Annual Adjusted Losses" are calculated by averaging each member's losses for the years 2011, 2012, 2013 & 2014.
 Losses are adjusted in accordance with MVRMA's Loss Capping Policy and include both paid claims and open claim reserves.
 Loss data is as of August 21, 2015.
- 3. Annually, all buildings valued in excess of \$50K, that were constructed or acquired since the previous year's on-site appraisal, are appraised. Annually, Alliant updates the values of existing buildings using an index.
- 4. "NOE" are calculated based upon each members' audited financial statements for the fiscal year most recently concluded. The amount has been adjusted to exclude depreciation, interest expense and contracts for which the risk has been effectively transferred to a third party.
- 5. A member's PCF value is determined by applying the following formula to the member's percentage share of each of the factors in the above table:

(3 X %AAAL) + (%Population + %FT Police + % Other FT + %Titled Vehicles + % IRPRV + %NOE)

Risk Exposure Worksheet: MVRMA (Summary)

Last Ten Years

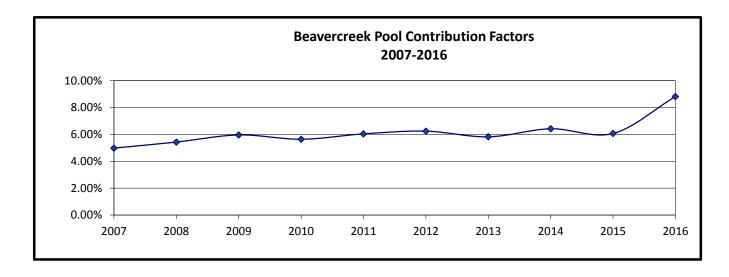
Schedule 7

				Risk Exposu	ire]
			(Non-Police)					Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Employees	Sworn Police	Vehicles	Values	Expenditures	Factors
2007	\$722,898	348,100	2,074	638	1,824	\$890,798,964	\$358,045,532	100.00%
2008	\$657,329	348,100	2,070	649	1,891	\$847,418,767	\$385,918,674	100.00%
2009	\$708,014	348,100	2,032	645	1,933	\$914,069,611	\$396,081,790	100.00%
2010	\$847,609	348,100	2,020	642	1,926	\$959,970,282	\$396,536,755	100.00%
2011	\$768,322	348,100	1,954	632	1,920	\$1,018,755,061	\$412,734,256	100.00%
2012	\$696,716	370,590	1,888	612	1,939	\$1,047,889,231	\$407,102,311	100.00%
2013	\$763,825	370,590	1,825	611	1,976	\$1,077,777,731	\$420,844,315	100.00%
2014	\$672,451	370,590	1,822	605	1,924	\$1,107,428,574	\$411,669,530	100.00%
2015	\$724,499	370,590	1,825	622	1,904	\$1,113,247,357	\$420,164,274	100.00%
2016	\$821,474	370,590	1,837	620	1,926	\$1,180,810,359	\$434,572,101	100.00%

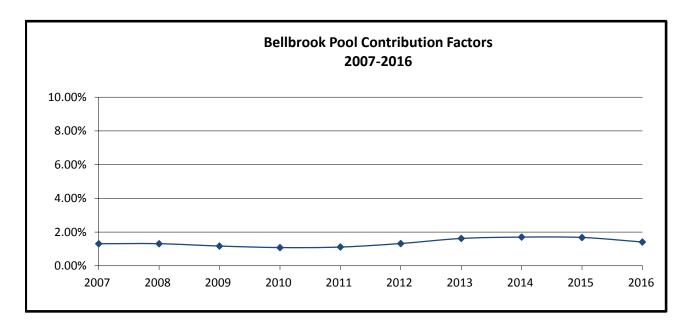
Note: In 2007, NAWA, a joint venture water authority shared by the cities of Tipp City and Vandalia, was included as a separate entity when co factors were calculated for each member of the pool. Calculating a separate contribution factor for NAWA was simply a means of separating its from the cities of Tipp City and Vandalia. The 2007-2010 totals above include the following information submitted for NAWA:

NAWA - 2007	\$0	0	3	0	0	\$11,598,837	\$84,130	0.16%
NAWA - 2008	\$0	0	3	0	1	\$11,946,350	\$537,839	0.19%
NAWA - 2009	\$8,750	0	3	0	1	\$12,300,907	\$819,802	0.61%
NAWA - 2010	\$8,750	0	3	0	1	\$12,601,281	\$862,624	0.54%
NAWA - 2011	\$8,750	0	4	0	1	\$12,384,113	\$1,060,718	0.57%
NAWA - 2012	\$8,750	0	4	0	1	\$13,103,413	\$897,199	0.61%
NAWA - 2013	\$0	0	4	0	1	\$13,512,950	\$922,993	0.19%
NAWA - 2014	\$2,166	0	4	0	1	\$13,010,810	\$976,491	0.29%
NAWA - 2015	\$2,166	0	4	0	1	\$13,010,810	\$952,964	0.28%
NAWA - 2016	\$2,166	0	4	0	1	\$14,740,428	\$287,066	0.26%
Source: Association's in	iternal records							

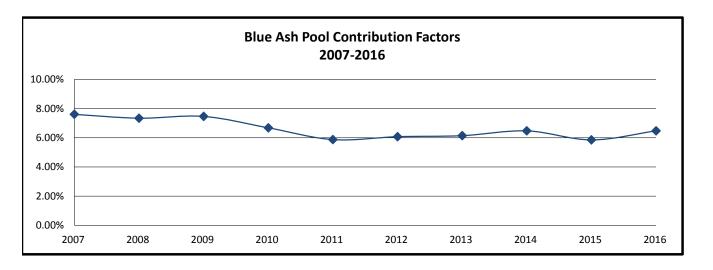
			Ris	k Exposure				
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$21,107	37,984	47	89	102	\$26,809,530	\$17,420,563	4.98%
2008	\$27,841	37,984	46	90	109	\$26,334,539	\$19,135,485	5.43%
2009	\$44,102	37,984	48	84	104	\$26,337,822	\$16,759,148	5.96%
2010	\$45,982	37,984	46	82	96	\$26,848,883	\$18,056,350	5.64%
2011	\$50,220	37,984	46	88	96	\$26,944,472	\$18,189,385	6.04%
2012	\$45,434	45,193	46	88	95	\$28,306,520	\$18,979,561	6.24%
2013	\$40,172	45,193	47	86	97	\$28,996,673	\$18,579,197	5.82%
2014	\$45,937	45,193	46	86	99	\$29,362,096	\$20,582,065	6.42%
2015	\$42,018	45,193	47	85	108	\$29,769,414	\$18,828,507	6.07%
2016	\$114,445	45,193	49	84	107	\$34,236,842	\$19,378,444	8.82%



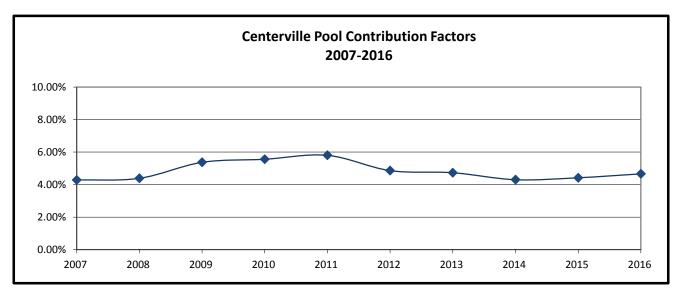
				Risk Exposure	•			
				·				
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$5,155	7,009	14	25	33	\$12,076,724	\$3,815,994	1.31%
2008	\$4,514	7,009	12	26	35	\$11,366,041	\$4,172,942	1.27%
2009	\$3,425	7,009	12	25	33	\$11,359,892	\$4,086,026	1.17%
2010	\$1,517	7,009	12	26	33	\$11,598,240	\$4,316,695	1.08%
2011	\$1,380	7,009	12	26	34	\$13,620,523	\$4,383,111	1.11%
2012	\$5,533	6,943	12	26	34	\$13,671,866	\$5,016,924	1.32%
2013	\$13,621	6,943	12	25	32	\$14,013,239	\$4,731,637	1.62%
2014	\$14,085	6,943	12	21	31	\$14,346,736	\$4,562,205	1.70%
2015	\$14,727	6,943	12	22	30	\$14,271,119	\$5,003,578	1.68%
2016	\$10,768	6,943	12	21	29	\$14,381,106	\$4,850,570	1.41%



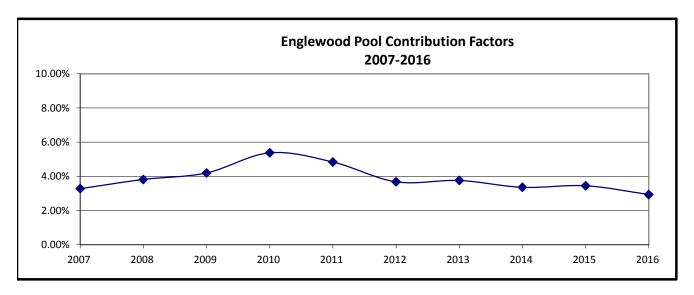
				Risk Exposure				
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$83,352	12,513	38	108	108	\$61,585,076	\$22,163,631	7.60%
2008	\$70,585	12,513	38	110	108	\$60,555,427	\$23,993,866	7.34%
2009	\$77,204	12,513	38	110	109	\$70,756,876	\$24,211,958	7.46%
2010	\$71,848	12,513	37	106	115	\$76,921,838	\$24,173,860	6.68%
2011	\$45,746	12,513	37	104	108	\$87,598,219	\$24,786,830	5.87%
2012	\$45,820	12,114	35	96	108	\$89,042,698	\$27,369,113	6.07%
2013	\$47,171	12,114	35	97	109	\$90,720,934	\$35,631,783	6.14%
2014	\$50,436	12,114	32	93	111	\$94,664,444	\$31,999,635	6.47%
2015	\$41,104	12,114	32	100	109	\$96,040,638	\$30,980,532	5.85%
2016	\$63,400	12,114	32	100	109	\$96,760,953	\$31,950,901	6.47%



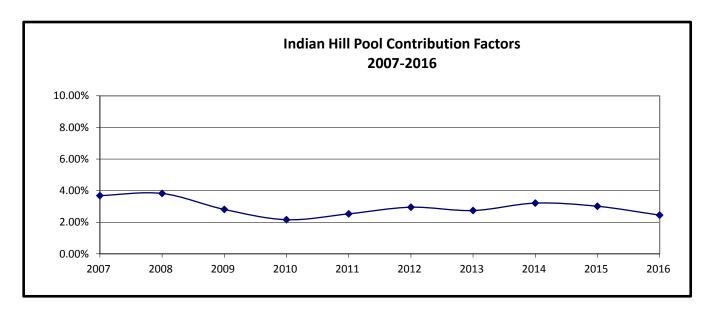
				Risk Exposure				
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$19,523	23,024	42	92	93	\$27,454,829	\$16,510,031	4.28%
2008	\$23,317	23,024	39	84	86	\$27,436,846	\$16,927,984	4.39%
2009	\$45,062	23,024	41	79	90	\$29,783,636	\$17,647,206	5.37%
2010	\$59,427	23,024	43	80	88	\$36,455,615	\$13,498,803	5.56%
2011	\$58,028	23,024	42	78	88	\$34,958,605	\$17,809,067	5.80%
2012	\$32,719	23,999	41	78	92	\$34,472,337	\$17,525,689	4.86%
2013	\$32,731	23,999	40	79	96	\$35,377,779	\$17,939,284	4.73%
2014	\$20,305	23,999	40	80	91	\$35,803,979	\$17,299,367	4.30%
2015	\$26,014	23,999	40	81	83	\$35,644,958	\$17,250,599	4.42%
2016	\$35,777	23,999	40	78	87	\$36,227,816	\$17,754,223	4.66%



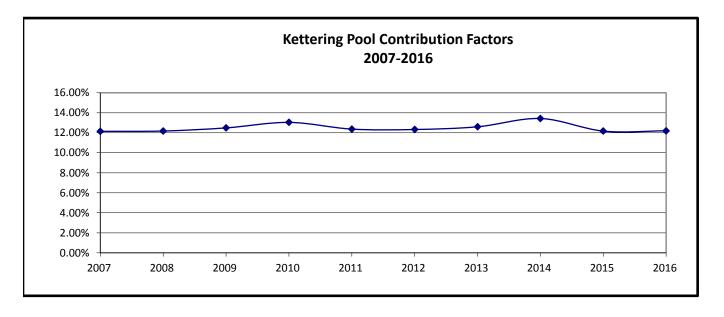
				Risk Exposure				
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$27,602	12,235	16	50	64	\$25,487,087	\$11,653,011	3.28%
2008	\$35,942	12,235	20	45	64	\$24,937,732	\$10,986,906	3.82%
2009	\$46,536	12,235	20	45	68	\$28,179,154	\$10,664,007	4.20%
2010	\$85,660	12,235	20	44	66	\$29,955,893	\$10,779,062	5.38%
2011	\$65,485	12,235	20	45	66	\$29,697,266	\$11,102,203	4.84%
2012	\$35,031	13,465	20	46	63	\$30,371,950	\$10,553,408	3.68%
2013	\$40,326	13,465	20	45	63	\$31,084,042	\$10,576,634	3.76%
2014	\$26,466	13,465	20	49	63	\$31,999,694	\$10,713,519	3.36%
2015	\$30,371	13465	20	50	63	\$32,153,474	\$11,290,786	3.45%
2016	\$22,670	13465	20	49	62	\$32,410,510	\$11,570,295	2.94%



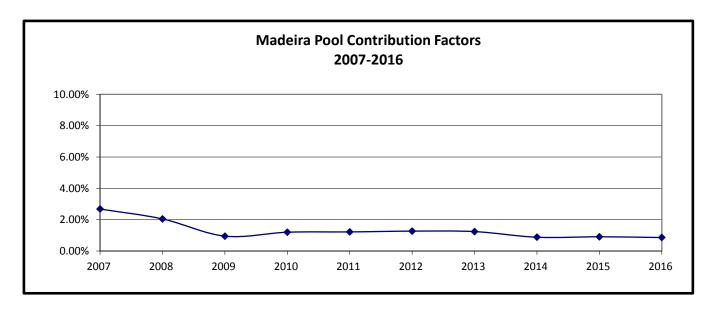
				Risk Exposure	!			
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$41,465	5,907	20	59	67	\$18,191,591	\$9,168,888	3.68%
2008	\$40,443	5,907	20	60	71	\$17,223,591	\$9,484,132	3.82%
2009	\$22,065	5,907	20	63	67	\$17,217,305	\$10,520,453	2.81%
2010	\$11,308	5,907	19	59	65	\$23,536,511	\$7,930,463	2.16%
2011	\$17,119	5,907	20	59	58	\$24,018,096	\$11,520,812	2.53%
2012	\$24,043	5,785	19	56	58	\$24,510,843	\$13,235,566	2.95%
2013	\$22,890	5,785	19	53	59	\$25,089,755	\$11,757,158	2.74%
2014	\$28,111	5,785	19	53	64	\$25,936,887	\$12,499,416	3.21%
2015	\$26,341	5,785	19	53	63	\$26,085,169	\$12,659,360	3.01%
2016	\$16,205	5,785	20	54	62	\$26,377,682	\$12,891,852	2.45%



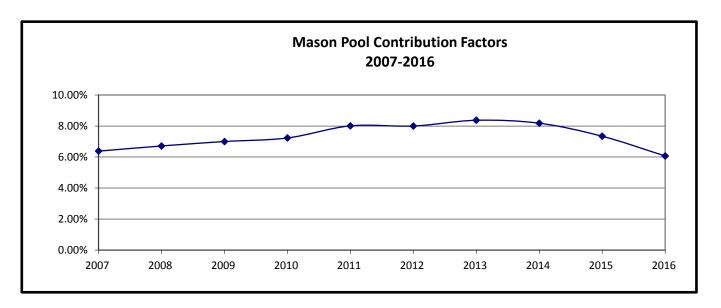
				Risk Exposure				
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$57,704	57,502	81	305	235	\$131,107,666	\$49,602,044	12.15%
2008	\$55,849	57,502	83	296	254	\$114,335,569	\$52,414,872	12.18%
2009	\$59,798	57,502	82	303	267	\$142,973,189	\$53,256,573	12.49%
2010	\$81,829	57,502	83	312	260	\$146,813,009	\$58,321,082	13.04%
2011	\$62,797	57,502	81	298	254	\$157,357,696	\$55,958,354	12.37%
2012	\$56,891	56,163	81	285	261	\$165,013,544	\$56,061,531	12.33%
2013	\$69,189	56,163	81	280	260	\$168,588,121	\$57,431,798	12.60%
2014	\$74,944	56,163	80	282	260	\$174,741,061	\$58,950,292	13.43%
2015	\$55,970	56,163	80	284	245	\$175,472,336	\$59,574,560	12.17%
2016	\$65,033	56,163	81	290	245	\$179,251,621	\$61,549,195	12.20%



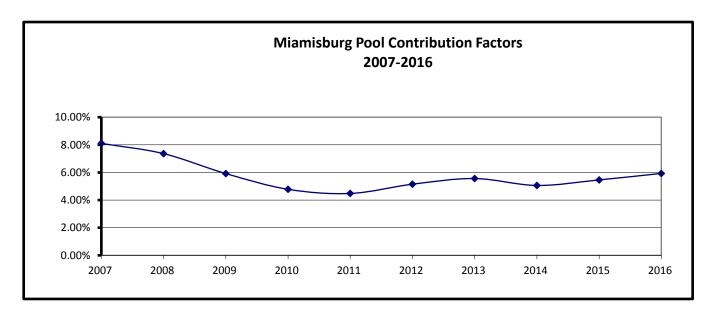
				Risk Exposure				
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$40,457	8,923	12	12	18	\$4,938,711	\$2,767,967	2.68%
2008	\$24,383	8,923	13	11	18	\$4,663,035	\$2,791,986	2.05%
2009	\$2,627	8,923	13	11	18	\$4,679,431	\$3,405,316	0.95%
2010	\$9,568	8,923	12	12	18	\$4,763,287	\$3,641,039	1.20%
2011	\$9,568	8,923	13	12	20	\$4,750,274	\$2,090,829	1.22%
2012	\$9,953	8,726	11	12	19	\$4,882,962	\$3,587,538	1.27%
2013	\$9,953	8,726	12	11	19	\$4,997,826	\$3,647,254	1.24%
2014	\$1,435	8,726	12	11	20	\$5,155,887	\$3,419,147	0.88%
2015	\$2,300	8,726	12	10	20	\$5,155,887	\$3,625,419	0.91%
2016	\$1,548	8,726	12	11	20	\$5,212,559	\$3,390,139	0.86%



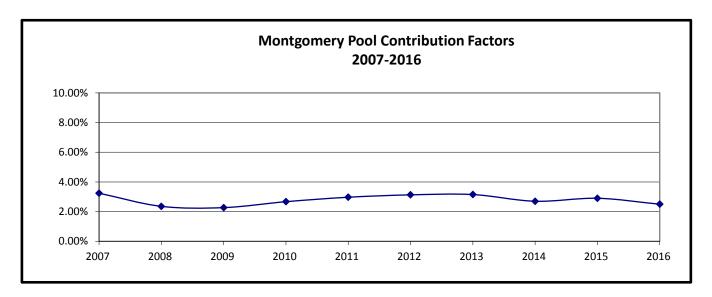
				Risk Exposure				
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$37,341	22,016	42	150	88	\$84,689,213	\$26,686,653	6.38%
2008	\$36,280	22,016	41	158	114	\$85,357,251	\$28,887,906	6.71%
2009	\$44,785	22,016	43	142	120	\$96,742,995	\$28,900,206	7.00%
2010	\$59,237	22,016	43	149	128	\$99,265,213	\$26,767,913	7.23%
2011	\$64,269	22,016	43	148	131	\$116,229,359	\$33,361,055	8.01%
2012	\$55,606	30,712	38	144	126	\$118,786,784	\$33,039,076	8.00%
2013	\$68,019	30,712	40	136	135	\$122,739,440	\$34,084,947	8.37%
2014	\$53,392	30,712	43	144	124	\$128,276,254	\$35,045,902	8.18%
2015	\$38,276	30,712	49	134	123	\$127,892,985	\$36,913,947	7.34%
2016	\$12,809	30,712	42	141	140	\$132,122,628	\$38,044,980	6.07%



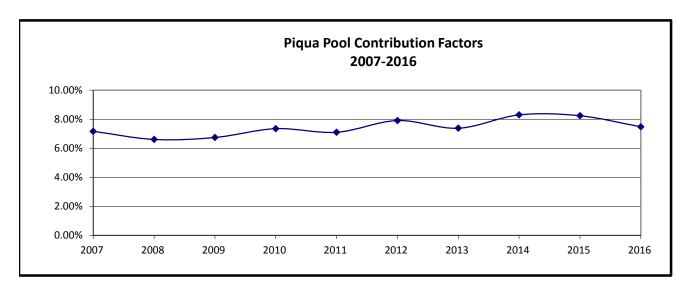
				Risk Exposure	•			
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$89,397	19,489	39	144	120	\$43,682,241	\$20,428,324	8.10%
2008	\$67,249	19,489	41	147	120	\$41,904,971	\$20,304,421	7.36%
2009	\$41,982	19,489	41	144	124	\$42,746,457	\$21,082,751	5.92%
2010	\$22,345	19,489	40	138	122	\$44,344,585	\$21,937,415	4.78%
2011	\$14,910	19,489	36	135	121	\$43,557,340	\$23,674,531	4.48%
2012	\$27,876	20,181	37	127	121	\$43,926,521	\$23,270,400	5.15%
2013	\$43,839	20,181	35	100	121	\$44,033,325	\$25,122,699	5.56%
2014	\$32,924	20,181	35	90	99	\$41,886,009	\$23,648,250	5.06%
2015	\$44,553	20,181	38	91	103	\$41,870,338	\$21,050,388	5.46%
2016	\$62,190	20,181	35	95	105	\$48,293,033	\$21,180,125	5.93%



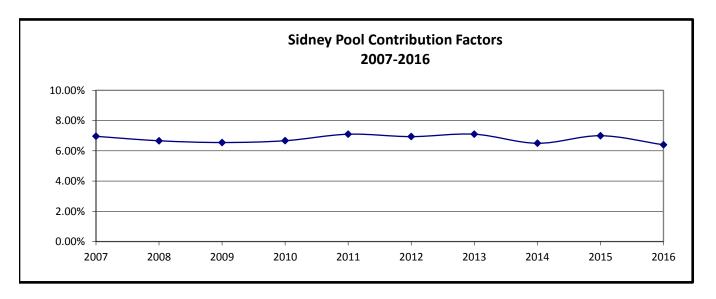
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				Risk Exposure				
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$35,250	10,163	21	37	47	\$14,878,874	\$8,231,945	3.24%
2008	\$14,018	10,163	21	42	47	\$15,769,510	\$8,812,990	2.36%
2009	\$12,643	10,163	21	43	47	\$16,251,860	\$10,011,595	2.27%
2010	\$23,895	10,163	21	44	53	\$17,180,169	\$10,465,396	2.67%
2011	\$27,561	10,163	21	43	56	\$17,560,789	\$12,026,355	2.97%
2012	\$27,847	10,251	21	44	60	\$17,936,640	\$11,522,015	3.13%
2013	\$30,102	10,251	21	43	66	\$18,641,658	\$12,087,079	3.15%
2014	\$16,280	10,251	21	43	72	\$18,958,734	\$12,157,433	2.70%
2015	\$21,607	10,251	23	42	72	\$18,628,129	\$12,298,636	2.90%
2016	\$17.922	10.251	22	43	44	\$26,774,775	\$11.925.188	2.50%



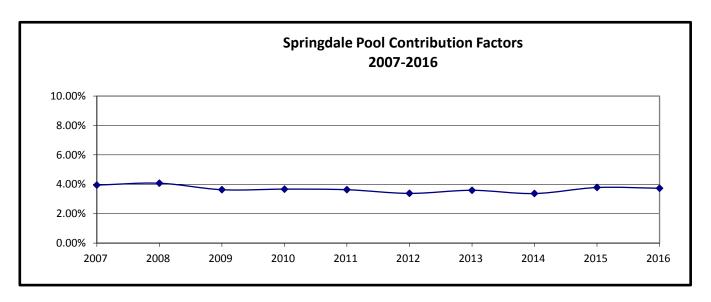
				Risk Exposure				
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$51,735	20,738	33	181	129	\$60,017,522	\$33,569,792	7.17%
2008	\$38,063	20,738	34	175	136	\$56,595,892	\$33,109,112	6.61%
2009	\$42,118	20,738	31	170	141	\$57,301,594	\$40,094,414	6.74%
2010	\$60,917	20,738	33	168	142	\$62,544,120	\$44,851,674	7.35%
2011	\$54,193	20,738	31	160	140	\$62,925,749	\$42,344,214	7.10%
2012	\$67,371	20,522	31	156	145	\$64,525,119	\$39,559,501	7.91%
2013	\$59,718	20,522	30	149	152	\$72,017,789	\$41,864,785	7.38%
2014	\$71,322	20,522	30	154	147	\$74,654,276	\$39,353,735	8.30%
2015	\$73,617	20,522	30	158	147	\$75,400,976	\$42,740,087	8.24%
2016	\$54,907	20,522	34	157	162	\$99,149,309	\$47,488,995	7.48%



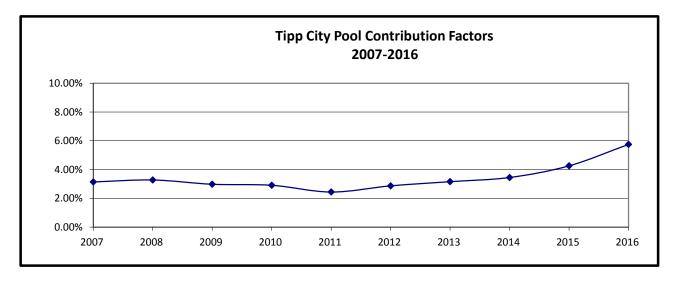
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				Risk Exposure				
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$48,008	20,211	40	164	158	\$69,140,327	\$22,601,163	6.96%
2008	\$38,537	20,211	40	170	164	\$64,339,420	\$23,008,043	6.67%
2009	\$39,636	20,211	40	170	158	\$67,197,507	\$24,766,441	6.55%
2010	\$49,652	20,211	40	160	152	\$72,897,123	\$27,683,855	6.67%
2011	\$58,830	20,211	40	153	154	\$71,697,298	\$24,349,332	7.10%
2012	\$50,576	21,229	37	151	154	\$73,442,513	\$24,379,417	6.94%
2013	\$60,577	21,229	36	148	154	\$75,033,010	\$23,703,290	7.10%
2014	\$41,798	21,229	36	149	142	\$76,513,173	\$23,545,356	6.50%
2015	\$56,895	21,229	36	149	133	\$77,683,418	\$24,203,862	7.00%
2016	\$48,047	21,229	36	149	153	\$80,469,787	\$24,562,121	6.40%



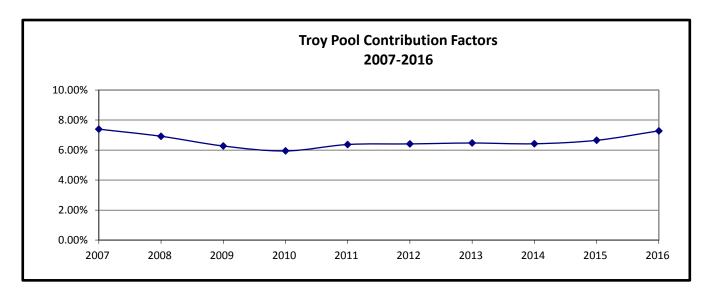
								<u> </u>
				Risk Exposure				
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$26,461	10,563	38	85	68	\$32,509,932	\$14,542,467	3.95%
2008	\$24,987	10,563	38	87	71	\$31,648,857	\$17,994,753	4.07%
2009	\$17,448	10,563	39	88	74	\$35,005,878	\$16,818,005	3.63%
2010	\$22,180	10,563	38	83	74	\$35,784,392	\$18,081,809	3.67%
2011	\$20,750	10,563	36	82	73	\$37,207,591	\$17,144,932	3.63%
2012	\$14,988	11,223	33	74	74	\$37,960,645	\$16,893,700	3.38%
2013	\$20,889	11,223	36	74	80	\$38,805,997	\$14,575,302	3.59%
2014	\$14,364	11,223	34	76	71	\$39,495,622	\$15,911,155	3.37%
2015	\$24,833	11,223	32	76	73	\$39,769,584	\$16,941,758	3.78%
2016	\$27,036	11,223	33	76	78	\$40,343,050	\$16,215,558	3.73%



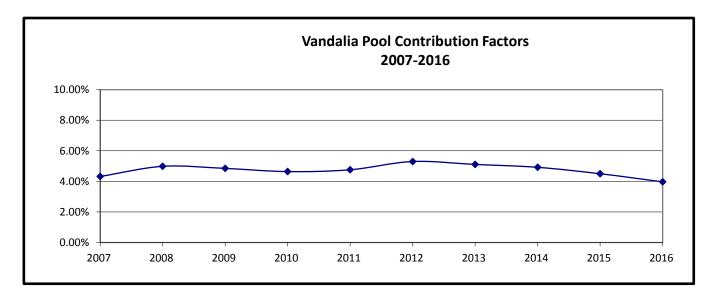
				Risk Exposure				
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$21,495	9,221	19	48	76	\$26,021,606	\$15,472,844	3.14%
2008	\$23,783	9,221	19	49	73	\$24,959,109	\$15,048,997	3.28%
2009	\$18,922	9,221	19	49	76	\$24,987,692	\$16,376,219	2.98%
2010	\$20,083	9,221	19	48	77	\$25,772,171	\$17,518,594	2.91%
2011	\$6,357	9,221	19	52	78	\$25,554,338	\$18,924,381	2.44%
2012	\$14,726	9,689	18	48	84	\$26,431,509	\$18,352,038	2.87%
2013	\$23,571	9,689	18	48	84	\$26,577,876	\$17,862,591	3.16%
2014	\$24,948	9,689	19	47	86	\$30,389,846	\$19,237,669	3.45%
2015	\$43,746	9,689	19	48	80	\$30,983,069	\$20,849,710	4.26%
2016	\$83,711	9,689	19	49	84	\$36,375,267	\$23,526,968	5.75%



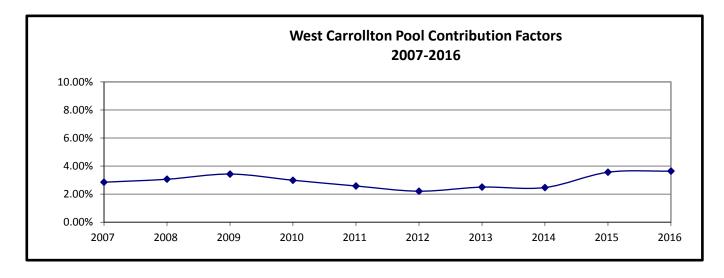
				Risk E	xposure			
				(Non-Police)				Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$49,901	21,999	44	176	119	\$88,867,873	\$27,363,186	7.39%
2008	\$39,410	21,999	43	174	121	\$80,039,525	\$27,367,586	6.92%
2009	\$33,829	21,999	41	161	117	\$80,322,304	\$26,193,873	6.27%
2010	\$33,879	21,999	41	165	116	\$77,486,302	\$25,605,656	5.94%
2011	\$43,029	21,999	40	149	118	\$77,867,665	\$26,778,965	6.37%
2012	\$38,515	25,058	38	142	120	\$80,019,303	\$27,530,777	6.41%
2013	\$43,715	25,058	39	138	117	\$81,722,588	\$28,978,679	6.47%
2014	\$37,119	25,058	39	140	118	\$82,989,425	\$27,498,899	6.42%
2015	\$42,575	25,058	43	141	124	\$83,607,476	\$28,426,635	6.65%
2016	\$67,444	25,058	43	141	111	\$83,275,967	\$29,243,228	7.28%



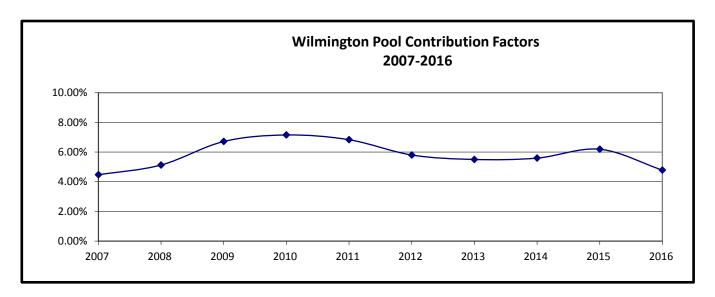
				Risk Exposure				
			(Non-Police)					Pool
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Employees	Sworn Police	Vehicles	Values	Expenditures	Factors
2007	\$18,468	14,603	118	28	95	\$53,098,177	\$20,690,249	4.32%
2008	\$24,989	14,603	117	30	93	\$47,556,010	\$32,656,673	4.99%
2009	\$27,000	14,603	117	27	98	\$46,902,604	\$31,347,819	4.85%
2010	\$33,159	14,603	111	30	99	\$47,826,976	\$21,950,659	4.64%
2011	\$30,926	14,603	105	31	102	\$51,524,679	\$24,564,802	4.76%
2012	\$40,729	15,246	108	31	101	\$54,897,952	\$19,643,180	5.30%
2013	\$40,474	15,246	102	30	104	\$56,289,545	\$20,996,497	5.11%
2014	\$33,126	15,246	105	31	101	\$57,688,226	\$16,739,616	4.92%
2015	\$24,552	15,246	31	107	102	\$57,965,235	\$20,335,739	4.50%
2016	\$15,674	15,246	31	106	104	\$58,382,095	\$20,699,768	3.97%



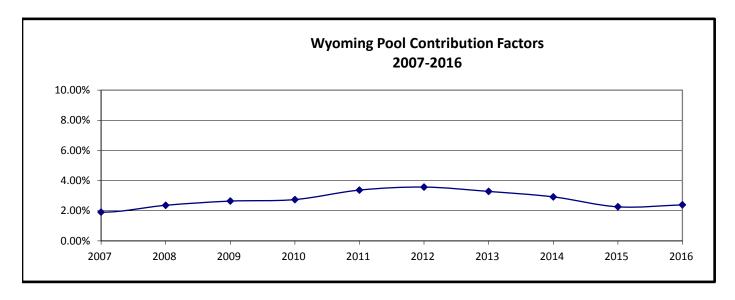
	Risk Exposure							
	(Non-Police)							
	Average		Full-Time Full-Time		Titled	PP/RP	Net Operating	Contribution
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors
2007	\$13,984	13,818	25	59	63	\$25,803,945	\$9,891,079	2.85%
2008	\$17,078	13,818	24	59	66	\$25,723,805	\$10,397,925	3.06%
2009	\$27,640	13,818	24	58	62	\$26,000,157	\$9,970,084	3.43%
2010	\$22,032	13,818	23	59	62	\$26,531,747	\$10,387,085	2.99%
2011	\$11,150	13,818	23	54	62	\$27,224,795	\$10,652,767	2.58%
2012	\$3,556	13,143	22	50	62	\$27,768,872	\$11,157,776	2.21%
2013	\$10,618	13,143	22	49	62	\$28,340,006	\$11,506,423	2.50%
2014	\$8,931	13,143	22	46	63	\$28,876,147	\$11,021,168	2.47%
2015	\$33,748	13,143	22	45	63	\$29,414,833	\$10,888,826	3.56%
2016	\$40,289	13,143	22	44	64	\$30,933,346	\$11,436,574	3.64%



	Risk Exposure								
	(Non-Police)								
	Average		Full-Time	Full-Time	Titled	PP/RP	Net Operating	Contribution	
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors	
2007	\$23,775	11,921	25	133	108	\$51,630,834	\$17,491,855	4.47%	
2008	\$35,067	11,921	28	132	103	\$50,083,349	\$17,984,470	5.13%	
2009	\$69,919	11,921	26	134	120	\$50,923,011	\$19,574,067	6.71%	
2010	\$94,831	11,921	23	137	124	\$53,447,136	\$19,616,027	7.15%	
2011	\$76,912	11,921	22	124	124	\$69,015,342	\$20,294,238	6.83%	
2012	\$48,948	12,520	22	121	124	\$71,065,287	\$18,452,322	5.80%	
2013	\$46,544	12,520	21	122	126	\$72,608,144	\$19,315,329	5.50%	
2014	\$45,623	12,520	18	117	122	\$74,109,343	\$17,250,306	5.59%	
2015	\$61,564	12,520	21	114	123	\$74,328,087	\$17,262,613	6.19%	
2016	\$35,691	12,520	21	114	126	\$75,583,201	\$17,710,188	4.78%	



	Risk Exposure								
	(Non-Police)								
	Average		Full-Time Full-Time		Titled	PP/RP	Net Operating	Contribution	
Membership Year	Annual Losses	Population	Sworn Police	Employees	Vehicles	Values	Expenditures	Factors	
2007	\$10,718	8,261	14	36	33	\$21,208,369	\$7,889,716	1.90%	
2008	\$14,994	8,261	19	35	37	\$24,641,938	\$9,899,786	2.36%	
2009	\$22,523	8,261	19	33	39	\$26,099,340	\$9,575,827	2.64%	
2010	\$29,510	8,261	19	34	35	\$27,395,791	\$10,090,694	2.74%	
2011	\$40,342	8,261	19	35	36	\$27,060,852	\$11,717,375	3.37%	
2012	\$41,804	8,428	19	32	37	\$27,751,953	\$10,075,580	3.57%	
2013	\$39,706	8,428	17	36	39	\$28,587,034	\$9,528,956	3.28%	
2014	\$28,739	8,428	16	32	39	\$28,119,925	\$9,256,904	2.92%	
2015	\$17,522	8,428	16	31	39	\$28,099,422	\$8,085,768	2.26%	
2016	\$23,742	8,428	16	31	33	\$29,508,384	\$8,915,723	2.39%	



Miami Valley Risk Management Association Operating Information by Component Last Ten Years

Schedule 28

Year Ended December 31

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Number of Members	20	20	20	20	20	20	20	20	20	20
Number of Staff	4	4	4	4	4	4	4	4	4	4
Number of Claims	371	414	314	334	405	348	342	360	344	349
Number of Training Sessions	37	25	41	31	23	31	24	21	24	27

Note: The MVRMA staff addresses its members' risk management and risk financing needs, acts as a clearing house for risk related information, administers a claims/litigation management program, and provides extensive safety/loss control consulting and training.

Source: Employment Records, Association's internal records



MIAMI VALLEY RISK MANAGEMENT ASSOCIATION OF KETTERING, OHIO MONTGOMERY COUNTY

CLERK'S CERTIFICATION

This is a true and correct copy of the report which is required to be filed in the Office of the Auditor of State pursuant to Section 117.26, Revised Code, and which is filed in Columbus, Ohio.

CLERK OF THE BUREAU

Susan Babbitt

CERTIFIED JULY 25, 2017