

## **Volunteer Firefighters' Compensation Act of the State of Montana**

**GASB 67 and 68 Report  
as of June 30, 2015**

**Produced by Cheiron**

**December 2015**

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## BOARD SUMMARY

The purpose of this report is to provide accounting and financial disclosure information under the Government Accounting Standards Board Statements 67 and 68 for the Volunteer Firefighters' Compensation Act and the State of Montana. This information includes:

- Determination of the discount rate,
- Projection of the Total Pension Liability from the actuarial valuation date to the measurement date,
- Changes in the Net Pension Liability from the beginning to the end of the measurement period,
- Calculation of the Net Pension Liability at the discount rate as well as discount rates 1% higher and lower than the discount rate,
- Schedule of Changes in Net Pension Liability and Related Ratios,
- Schedule of State Contributions,
- Schedule of Deferred Inflows and Outflows of Resources,
- Calculation of Pension Expense, and
- Calculation of Expected Return on Assets.

### Highlights

The reporting date for the State of Montana Volunteer Firefighters' Compensation Act (VFCA) is June 30, 2015. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2015 and the Total Pension Liability as of an actuarial valuation date of June 30, 2014, updated to June 30, 2015 as described on page 5. House Bill 483 (HB 483) was enacted during the 2015 legislative session, which increased the pension benefit available to eligible members and added approximately \$6.2 million to the Total Pension Liability. There were no other significant events between the valuation date and the measurement date. Therefore, the update procedures included the addition of Service Cost and interest cost offset by actual benefit payments and the additional liability associated with the benefit change.

The table on the next page provides a summary of the key results during this reporting period.

**BOARD SUMMARY**

	Measurement Date	
	6/30/2015	6/30/2014
Total Pension Liability	\$ 44,608,065	\$ 38,359,440
Plan Fiduciary Net Position	<u>34,103,818</u>	<u>33,270,201</u>
Net Pension Liability	\$ 10,504,247	\$ 5,089,239
Deferred Outflows	0	0
Deferred Inflows	<u>1,001,944</u>	<u>2,068,858</u>
Net Impact on Statement of Net Position	\$ 11,506,191	\$ 7,158,097
Pension Expense (\$ Amount)	\$ 6,261,576	\$ 470,180
Pension Expense (% of Pensionable Payroll)	N/A	N/A
Discount Rate	7.75%	7.75%

\* Throughout this report, pensionable payroll will be used rather than Covered-Employee Payroll as defined by GASB, and described in Appendix A. Payroll is not applicable in calculations under VFCA.

As of the end of the reporting year, the State would report a total Net Pension Liability of \$10,504,247 and Deferred Inflows of \$1,001,944. Consequently, the net impact on the State's Statement of Net Position would be \$11,506,191 at the end of the reporting year. In addition, any contributions between the measurement date and the reporting date by the State would be reported as deferred outflows to match the cash outflow reported.

For the measurement year ending June 30, 2015, the Pension Expense is \$6,261,576. This amount is not expected to be the same as the State's contribution to the Plan (\$1,913,482), but instead represents the change in the net impact on the State's Statement of Net Position plus State contributions [\$11,506,191 - \$7,158,097 + \$1,913,482]. A breakdown of the Pension Expense is shown later in this report.

### CERTIFICATION

The purpose of this report is to provide accounting and financial reporting information under GASB 67 and 68 for the State of Montana Volunteer Firefighters' Compensation Act (VFCA). This report is for the use of VFCA, the State of Montana, and their auditors in preparing financial reports in accordance with applicable law and accounting requirements. This report is not appropriate for other purposes, including the measurement of funding requirements for VFCA.

In preparing our report, we relied on information (some oral and some written) supplied by Montana Public Employee Retirement Administration (MPERA). This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The membership data, actuarial assumptions, and plan provisions are the same as were described in the June 30, 2014 Actuarial Valuation Report for VFCA. The benefit increases established with House Bill 483 during the 2015 legislative session is also included and described in the June 30, 2015 Actuarial Valuation Report. Rationale for the actuarial assumptions can be found in the June 30, 2015 Actuarial Valuation Report.

Future reporting requirements may differ significantly from the current reporting requirements presented in this report due to such factors as the following: plan experience differing from that anticipated by assumptions; changes in assumptions; and, changes in plan provisions or applicable law.

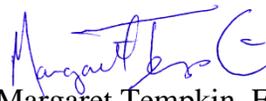
To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This report was prepared for VFCA for the purposes described herein and for the use by the Plan auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

Sincerely,  
Cheiron



Stephen T. McElhaney, FSA, FCA, MAAA  
Principal Consulting Actuary



Margaret Tempkin, FSA, MAAA  
Principal Consulting Actuary

### **DETERMINATION OF DISCOUNT RATE**

The discount rate as of June 30, 2015 is 7.75% which is the assumed long-term expected rate of return on System investments. Projections of the System's fiduciary net position have indicated that it is expected to be sufficient to make projected benefit payments for current Plan members following the procedures described in paragraphs 39 - 45 of GASB Statement 67. The results of these projections are included within this report in Appendix B. Even though the contributions to VFCA have consistently increased from year to year in the past, we have assumed no future increases in these contributions for purposes of the projections. Any assumed increase applied would not change the conclusion that the fiduciary net position will be sufficient to make projected benefit payments for current plan members.

**PROJECTION OF TOTAL PENSION LIABILITY**

The Total Pension Liability (TPL) at the end of the measurement year, June 30, 2015, is measured as of a valuation date of June 30, 2014 and projected to June 30, 2015. During the projection period, HB 483 was passed which increased the pension benefit available to eligible members and added approximately \$6.2 million to the Total Pension Liability. There were no other significant events during the projection period of which we are aware. Because the TPL shown in the prior report was measured as of June 30, 2013 and projected to June 30, 2014, it will not match the amounts measured as of June 30, 2014 that are shown in this exhibit.

The table below shows the projection of the TPL at discount rates equal to the rate used for disclosure along with plus and minus one percent from the rate used for disclosure. TPL and Service Cost have been determined using the Entry Age Actuarial Cost Method as described in paragraph 46 of GASB Statement 67, based on a Service Cost for each active member that increases annually at the assumed inflation rate of 3.0%.

<b>Table 2</b>			
<b>Projection of Total Pension Liability from Valuation to Measurement Date</b>			
<b>Discount Rate</b>	<b>6.75%</b>	<b>7.75%</b>	<b>8.75%</b>
<b>Valuation Total Pension Liability, 6/30/2014</b>			
Actives	\$ 11,919,998	\$ 10,424,567	\$ 9,186,054
Deferred Vested	9,408,455	8,428,493	7,604,491
Retirees	<u>20,179,159</u>	<u>18,887,526</u>	<u>17,745,037</u>
<b>Total</b>	<b>\$ 41,507,612</b>	<b>\$ 37,740,586</b>	<b>\$ 34,535,582</b>
<b>Service Cost, Beginning of Year</b>	<b>\$ 282,298</b>	<b>\$ 221,969</b>	<b>\$ 176,387</b>
<b>Benefit Payments</b>	<b>\$ (2,379,353)</b>	<b>\$ (2,379,353)</b>	<b>\$ (2,379,353)</b>
<b>Interest</b>	<b>\$ 2,741,827</b>	<b>\$ 2,851,618</b>	<b>\$ 2,935,383</b>
<b>Change in Benefits</b>	<b>\$ 6,728,269</b>	<b>\$ 6,173,245</b>	<b>\$ 5,700,319</b>
<b>Change in Assumptions</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>
<b>Other Significant Events</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>
<b>Total Pension Liability, 6/30/2015</b>	<b>\$ 48,880,653</b>	<b>\$ 44,608,065</b>	<b>\$ 40,968,318</b>

**NOTE DISCLOSURES**

The table below shows the changes in the Total Pension Liability, the Plan Fiduciary Net Position (i.e., fair value of System assets), and the Net Pension Liability during the measurement year.

<b>Table 3</b>			
<b>Change in Net Pension Liability</b>			
	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>Balances at 6/30/2014</b>	<b>\$ 38,359,440</b>	<b>\$ 33,270,201</b>	<b>\$ 5,089,239</b>
<b>Changes for the year:</b>			
Service Cost	221,969		221,969
Interest	2,851,618		2,851,618
Changes of Benefits	6,173,245		6,173,245
Differences between Expected and Actual Experience	(618,854)		(618,854)
Changes of Assumptions	0		0
Contributions - Employer		0	0
Contributions - Non-Employer		1,913,482	(1,913,482)
Contributions - Member		0	0
Net Investment Income		1,479,954	(1,479,954)
Benefit Payments	(2,379,353)	(2,379,353)	0
Administrative Expense		(180,466)	180,466
<b>Net Changes</b>	<b>6,248,625</b>	<b>833,617</b>	<b>5,415,008</b>
<b>Balances at 6/30/2015</b>	<b>\$ 44,608,065</b>	<b>\$ 34,103,818</b>	<b>\$ 10,504,247</b>

There was an actuarial experience gain during the year of approximately \$0.6 million. In addition, there was a benefit change increasing pension benefits for eligible members (HB 483), which increased the TPL by approximately \$6.2 million. There were no changes in assumptions during the year.

The benefit change, Service Cost, interest cost, and administrative expenses exceeded the experience gain, total contributions and investment income, resulting in an increase in the Net Pension Liability (NPL) of \$5,415,008. The NPL remaining as of June 30, 2015 is \$10,504,247.

**NOTE DISCLOSURES**

Changes in the discount rate affect the measurement of the TPL. Lower discount rates produce a higher TPL and higher discount rates produce a lower TPL. Because the discount rate does not affect the measurement of assets, the percentage change in the NPL can be very significant for a relatively small change in the discount rate. The table below shows the sensitivity of the NPL to the discount rate.

<b>Table 4</b>			
<b>Sensitivity of Net Pension Liability to Changes in Discount Rate</b>			
<b>As of June 30, 2015</b>			
	<b>1% Decrease 6.75%</b>	<b>Discount Rate 7.75%</b>	<b>1% Increase 8.75%</b>
Total Pension Liability	\$ 48,880,653	\$ 44,608,065	\$ 40,968,318
Plan Fiduciary Net Position	<u>34,103,818</u>	<u>34,103,818</u>	<u>34,103,818</u>
Net Pension Liability	<u>\$ 14,776,835</u>	<u>\$ 10,504,247</u>	<u>\$ 6,864,500</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	69.8%	76.5%	83.2%

A one percent decrease in the discount rate increases the TPL by approximately 9.6% and increases the NPL by approximately 40.7%. A one percent increase in the discount rate decreases the TPL by approximately 8.2% and decreases the NPL by approximately 34.7%.

**REQUIRED SUPPLEMENTARY INFORMATION**

The schedules of Required Supplementary Information generally start with information as of the implementation of GASB 67, and eventually will build up to 10 years of information. The schedule below shows the changes in NPL and related ratios required by GASB for the two years since implementation.

<b>Table 5</b>		
<b>Schedule of Changes in Net Pension Liability and Related Ratios</b>		
	<b>FYE 2015</b>	<b>FYE 2014</b>
<b><u>Total Pension Liability</u></b>		
Service Cost - beginning of year	\$ 221,969	\$ 237,639
Interest (includes interest on service cost)	2,851,618	2,843,095
Changes of Benefit Terms	6,173,245	0
Differences between Expected and Actual Experience	(618,854)	0
Changes of Assumptions	0	0
Benefit Payments, including Refunds of Member Contributions	<u>(2,379,353)</u>	<u>(2,294,676)</u>
<b>Net Change in Total Pension Liability</b>	<b>\$ 6,248,625</b>	<b>\$ 786,058</b>
<b>Total Pension Liability - beginning</b>	<b><u>38,359,440</u></b>	<b><u>37,573,382</u></b>
<b>Total Pension Liability - ending</b>	<b><u>\$ 44,608,065</u></b>	<b><u>\$ 38,359,440</u></b>
<b><u>Plan Fiduciary Net Position</u></b>		
Contributions - Employer	\$ 0	\$ 0
Contributions - Non-Employer	1,913,482	1,818,237
Contributions - Member	0	0
Net Investment Income	1,479,954	4,815,491
Benefit Payments, including Refunds of Member Contributions	(2,379,353)	(2,294,676)
Administrative Expense	<u>(180,466)</u>	<u>(136,079)</u>
<b>Net Change in Plan Fiduciary Net Position</b>	<b>\$ 833,617</b>	<b>\$ 4,202,973</b>
<b>Plan Fiduciary Net Position - beginning</b>	<b><u>33,270,201</u></b>	<b><u>29,067,228</u></b>
<b>Plan Fiduciary Net Position - ending</b>	<b><u>\$ 34,103,818</u></b>	<b><u>\$ 33,270,201</u></b>
<b>Net Pension Liability - ending</b>	<b><u>\$ 10,504,247</u></b>	<b><u>\$ 5,089,239</u></b>
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>	76.45%	86.73%
<b>Pensionable Payroll</b>	N/A	N/A
<b>Net Pension Liability as a Percentage of Pensionable Payroll</b>	N/A	N/A

**REQUIRED SUPPLEMENTARY INFORMATION**

If an Actuarially Determined Contribution is calculated, the following schedule is required. An Actuarially Determined Contribution is a contribution amount determined in accordance with Actuarial Standards of Practice.

<b>Table 6</b>		
<b>Schedule of Employer Contributions</b>		
<i>Amounts in Thousands</i>		
	FYE 2015	FYE 2014
Actuarially Determined Contribution	\$ 890	\$ 1,116
Contributions in Relation to the Actuarially Determined Contribution		
Employer Contributions	\$ 0	\$ 0
Non-Employer Contributions	<u>1,913</u>	<u>1,818</u>
Total Contributions	<u>\$ 1,913</u>	<u>\$ 1,818</u>
<b>Contribution Deficiency/(Excess)</b>	<b><u><u>\$ (1,023)</u></u></b>	<b><u><u>\$ (702)</u></u></b>
Pensionable Payroll	N/A	N/A
Contributions as a Percentage of Pensionable Payroll	N/A	N/A

The following notes summarize the key methods and assumptions used to determine the Actuarially Determined Contribution for FYE 2015.

Valuation Date:	June 30, 2014
Timing:	Actuarially determined contribution rates are calculated based on the actuarial valuation just prior to the beginning of the plan year
Actuarial cost method:	Entry Age
Amortization method:	Level dollar, open
Remaining amortization period:	20 years
Amortization growth rate:	0.00%
Asset valuation method:	4-year smoothed market
Inflation:	3.00%
Salary increases:	N/A
Investment rate of return:	7.75%, net of investment expenses
Mortality (healthy):	Sex distinct RP-2000 Combined Mortality projected to 2015 using Scale AA

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2015 can be found in the June 30, 2014 actuarial valuation report.

## STATE REPORTING AMOUNTS

The State is considered a non-employer contributing entity in a Special Funding Situation under paragraph 15b of GASB 68, since the State is the only entity with a legal obligation to make contributions directly to the Plan. The State is required to implement GASB 68 for its reporting date of June 30, 2015. The amounts reported as of June 30, 2015 can be based on either a June 30, 2014 or June 30, 2015 measurement date. We understand the State has elected to use the 2014 measurement date for their 2015 reporting date. As a result, the schedules in this section will be used by the State for its 2016 reporting.

The impact of experience gains or losses and assumption changes on the TPL are recognized in the Pension Expense over the average expected remaining service life of all active and inactive members of the Plan, determined as of the beginning of the measurement period. As of June 30, 2014, this average was 2.20 years<sup>1</sup> which was rounded to 2.00 years for recognition purposes. During the measurement year, there were no assumption changes. There was an experience gain of approximately \$0.6 million with approximately \$0.3 million of that was recognized in the current year and will be recognized next year.

Benefit changes are recognized in the Pension Expense immediately, with no amounts deferred. The benefit change increased pension benefits for eligible members and added approximately \$6.2 million to the Total Pension Liability, all of which is recognized in the Pension Expense during the current year.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of approximately \$1.1 million. Approximately, \$0.2 million of that was recognized in the current year and will be recognized in each of the next four years. Unrecognized investment gains from prior periods were approximately \$2.1 million of which \$0.5 million was recognized as a reduction in Pension Expense in the current year.

The combination of unrecognized net investment losses and experience gains this year along with unrecognized net investment gains from prior periods results in a Deferred Inflow of Resources as of June 30, 2015 of approximately \$1.0 million. The table on the following page summarizes the current balances of Deferred Outflows and Deferred Inflows of Resources along with the net recognition over future years.

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<sup>1</sup> The average expected future working lifetime for 1935 active members was 4.78 years.

**STATE REPORTING AMOUNTS**

<b>Table 7</b>														
<b>Schedule of Deferred Inflows and Outflows of Resources</b>														
<b>As of June 30, 2015</b>														
	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>												
Differences between Expected and Actual Experience	\$ 0	\$ 309,427												
Changes in Assumptions	0	0												
Net Difference between Projected and Actual														
Earnings on Pension Plan Investments	0	692,517												
<b>Total</b>	<b><u>\$ 0</u></b>	<b><u>\$ 1,001,944</u></b>												
<p>Amounts reported as Deferred Outflows and (Deferred Inflows) of Resources will be recognized in Pension Expense as follows:</p> <p style="text-align: center;"><b>Measurement year ended June 30:</b></p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: right;">2016</td> <td style="text-align: right;">\$ (611,860)</td> </tr> <tr> <td style="text-align: right;">2017</td> <td style="text-align: right;">(302,433)</td> </tr> <tr> <td style="text-align: right;">2018</td> <td style="text-align: right;">(302,431)</td> </tr> <tr> <td style="text-align: right;">2019</td> <td style="text-align: right;">214,780</td> </tr> <tr> <td style="text-align: right;">2020</td> <td style="text-align: right;">0</td> </tr> <tr> <td style="text-align: right;">Future Year Deferrals</td> <td style="text-align: right;">0</td> </tr> </table>			2016	\$ (611,860)	2017	(302,433)	2018	(302,431)	2019	214,780	2020	0	Future Year Deferrals	0
2016	\$ (611,860)													
2017	(302,433)													
2018	(302,431)													
2019	214,780													
2020	0													
Future Year Deferrals	0													

**STATE REPORTING AMOUNTS**

The Pension Expense of the Plan can be calculated two different ways. First, it is the change in the amounts reported on the State's Statement of Net Position that relate to the Plan and are not attributable to State contributions. That is, it is the change in NPL plus the changes in deferred outflows and inflows plus employer and non-employer contributions. Alternatively, the Pension Expense can be calculated by its individual components.

While GASB does not require or suggest the organization of the individual components shown in the table below, we believe it helps to understand the level and volatility of Pension Expense.

<b>Table 8</b>		
<b>Calculation of Pension Expense</b>		
	<b>Measurement Year Ending</b>	
	<b>2015</b>	<b>2014</b>
Change in Net Pension Liability	\$ 5,415,008	\$ (3,416,915)
Change in Deferred Outflows	0	0
Change in Deferred Inflows	(1,066,914)	2,068,858
Non-Employer Contributions	1,913,482	1,818,237
Employer Contributions	<u>0</u>	<u>0</u>
<b>Pension Expense</b>	<b>\$ 6,261,576</b>	<b>\$ 470,180</b>
<b>Pension Expense as % of Pensionable Payroll</b>	<b>N/A</b>	<b>N/A</b>
<b>Operating Expenses</b>		
Service Cost	\$ 221,969	\$ 237,639
Employee Contributions	0	0
Administrative Expenses	<u>180,466</u>	<u>136,079</u>
Total	\$ 402,435	\$ 373,718
<b>Financing Expenses</b>		
Interest Cost	\$ 2,851,618	\$ 2,843,095
Expected Return on Assets	<u>(2,553,862)</u>	<u>(2,229,418)</u>
Total	\$ 297,756	\$ 613,677
<b>Changes</b>		
Benefit Changes	\$ 6,173,245	\$ 0
Recognition of Assumption Changes	0	0
Recognition of Liability (Gains)/Losses	(309,427)	0
Recognition of Investment (Gains)/Losses	<u>(302,433)</u>	<u>(517,215)</u>
Total	\$ 5,561,385	\$ (517,215)
<b>Pension Expense</b>	<b>\$ 6,261,576</b>	<b>\$ 470,180</b>

**STATE REPORTING AMOUNTS**

First, there are components that we refer to as operating expenses. These items are directly attributable to the operation of the Plan during the measurement year. Service Cost less employee contributions represents the increase in the State-provided benefits attributable to the year, and administrative expenses are the cost of operating the Plan for the year.

Second, there are the financing expenses: the interest on the Total Pension Liability less the expected return on assets. Since the discount rate is equal to the long-term expected return on assets, the financing expense is the interest on the Net Pension Liability, Service Cost, contributions, and administrative expenses. The calculation of the expected return on assets is detailed below.

<b>Table 9</b>		
<b>Calculation of Expected Return on Assets</b>		
<b>For the Fiscal Year Ending June 30, 2015</b>		
Market Value of Assets - beginning of year	\$	33,270,201
Expected Return on Market Value	\$	2,578,440
Employee Contributions	\$	0
Non-Employer Contributions		1,913,482
Employer Contributions		0
Benefit Payments		(2,379,353)
Administrative Expenses		(180,466)
Net Cash Flow - during year	\$	(646,337)
Expected Return on Cash Flow Items	\$	(24,578)
<b>Expected Return on Assets</b>	<b>\$</b>	<b>2,553,862</b>

The final category is changes. This category will drive most of the volatility in Pension Expense from year to year. It includes any changes in benefits made during the year and the recognized amounts due to assumption changes, gains or losses on the TPL, and investment gains or losses.

**APPENDIX A  
GLOSSARY OF TERMS**

**1. Actuarially Determined Contribution**

A target or recommended contribution for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

**2. Actuarial Valuation Date**

The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

**3. Covered-Employee Payroll**

The payroll of employees that are provided with pensions through the pension plan.<sup>2</sup>

**4. Deferred Inflow of Resources**

An acquisition of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience gains on the Total Pension Liability, assumption changes reducing the Total Pension Liability, or investment gains that are recognized in future reporting periods.

**5. Deferred Outflow of Resources**

A consumption of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience losses on the Total Pension Liability, assumption changes increasing the Total Pension Liability or investment losses that are recognized in future reporting periods.

**6. Entry Age Actuarial Cost Method**

The actuarial cost method required for GASB 67 and 68 calculations. Under this method for VFCA, the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated between entry age and assumed exit ages as an annual amount that increases by the assumed inflation rate. The portion of this actuarial present value allocated to a valuation year is called the Service Cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future service costs is called the Total Pension Liability.

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<sup>2</sup> This payroll includes all pay to employees, whether or not included in pensionable pay. MPERA has advised that Covered-Employee Payroll is not available. Therefore, pensionable payroll has been used throughout this report. Payroll is not applicable in calculations under VFCA.

**APPENDIX A  
GLOSSARY OF TERMS**

**7. Measurement Date**

The date as of which the Total Pension Liability and Plan Fiduciary Net Position are measured. The Total Pension Liability may be projected from the Actuarial Valuation Date to the Measurement Date. The Measurement Date must be the same as the Reporting Date for the Plan.

**8. Net Pension Liability**

The liability of employers and non-employer contributing entities for employees for benefits provided through a defined benefit pension plan. It is calculated as the Total Pension Liability less the Plan Fiduciary Net Position.

**9. Pension Expense**

The economic cost of pensions that an entity recognizes during a reporting period.

**10. Plan Fiduciary Net Position**

The fair or market value of assets.

**11. Reporting Date**

The last day of the Plan or employer's fiscal year.

**12. Service Cost**

The portion of the actuarial present value of projected benefit payments that is attributed to the current period of employee service in conformity with the requirements of GASB 67 and 68. The Service Cost is the normal cost calculated under the entry age actuarial cost method.

**13. Special Funding Situation**

Circumstances in which a non-employer entity is legally responsible for making contributions directly to a pension plan that is used to provide pensions to the employees of another entity and either (i) the amount of such contributions is not dependent upon one or more events or circumstances unrelated to pensions, or (ii) the non-employer entity is the only entity with a legal obligation to make contributions directly to the pension plan.

**14. Total Pension Liability**

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB 67 and 68. The Total Pension Liability is the actuarial liability calculated under the Entry Age Actuarial Cost Method.

MONTANA VOLUNTEER FIREFIGHTERS' COMPENSATION ACT  
 GASB 67 AND 68 REPORTING FOR JUNE 30, 2015 MEASUREMENT DATE

**APPENDIX B**  
**DEVELOPMENT OF DISCOUNT RATE**

**Table 1 - Projection of Contributions**  
 Amounts in Thousands, Projections Commence June 30, 2014, Actual Amounts Shown for Year 1

Year	Projected Headcounts			Projected Rates			Projected Contributions			
	Headcount for Current Employees (a)	Headcount for Future Employees (b)	Total Employee Headcount (c) = (a) + (b)	Employee Rate (per employee) (d)	State Rate (per employee) (e)	Rate Available for Amortization (per employee) (f)	Member Contributions for Current Employees (g) = (a) x (d)	State Contributions for Current Employees (h) = (a) x (e)	Contributions Related to Future Employees (i) = (b) x (f)	Total Contributions (j) = (g) + (h) + (i)
1	1,935	0	1,935				\$ 0	\$ 1,913	\$ 0	\$ 1,913
2	1,585	350	1,935	\$ 0	\$ 1	\$ 1	0	1,568	293	1,861
3	1,322	613	1,935	0	1	1	0	1,307	514	1,821
4	1,116	819	1,935	0	1	1	0	1,104	687	1,790
5	938	997	1,935	0	1	1	0	928	836	1,764
6	790	1,145	1,935	0	1	1	0	782	960	1,741
7	666	1,269	1,935	0	1	1	0	658	1,064	1,723
8	561	1,374	1,935	0	1	1	0	554	1,152	1,707
9	473	1,462	1,935	0	1	1	0	468	1,225	1,694
10	399	1,536	1,935	0	1	1	0	395	1,288	1,682
11	338	1,597	1,935	0	1	1	0	334	1,339	1,673
12	286	1,649	1,935	0	1	1	0	283	1,383	1,665
13	242	1,693	1,935	0	1	1	0	239	1,420	1,659
14	203	1,732	1,935	0	1	1	0	200	1,452	1,653
15	170	1,765	1,935	0	1	1	0	168	1,480	1,648
16	142	1,793	1,935	0	1	1	0	141	1,503	1,644
17	118	1,817	1,935	0	1	1	0	117	1,523	1,640
18	98	1,837	1,935	0	1	1	0	96	1,541	1,637
19	80	1,855	1,935	0	1	1	0	79	1,556	1,634
20	65	1,870	1,935	0	1	1	0	64	1,568	1,632
21	53	1,882	1,935	0	1	1	0	52	1,578	1,630
22	43	1,892	1,935	0	1	1	0	43	1,586	1,629
23	35	1,900	1,935	0	1	1	0	35	1,593	1,628
24	29	1,906	1,935	0	1	1	0	28	1,598	1,627
25	23	1,912	1,935	0	1	1	0	23	1,603	1,626
26	18	1,917	1,935	0	1	1	0	18	1,607	1,625
27	14	1,921	1,935	0	1	1	0	14	1,610	1,625
28	11	1,924	1,935	0	1	1	0	11	1,613	1,624
29	9	1,926	1,935	0	1	1	0	9	1,615	1,624
30	7	1,928	1,935	0	1	1	0	7	1,617	1,623
31	5	1,930	1,935	0	1	1	0	5	1,618	1,623
32	4	1,931	1,935	0	1	1	0	4	1,619	1,623
33	3	1,932	1,935	0	1	1	0	3	1,620	1,623
34	2	1,933	1,935	0	1	1	0	2	1,621	1,623
35	2	1,934	1,935	0	1	1	0	1	1,621	1,623
36	1	1,934	1,935	0	1	1	0	1	1,622	1,623
37	1	1,934	1,935	0	1	1	0	1	1,622	1,623
38	0	1,935	1,935	0	1	1	0	0	1,622	1,622
39	0	1,935	1,935	0	1	1	0	0	1,622	1,622
40	0	1,935	1,935	0	1	1	0	0	1,622	1,622
41	0	1,935	1,935	0	1	1	0	0	1,622	1,622
42	0	1,935	1,935	0	1	1	0	0	1,622	1,622
43	0	1,935	1,935	0	1	1	0	0	1,622	1,622
44	0	1,935	1,935	0	1	1	0	0	1,622	1,622
45	0	1,935	1,935	0	1	1	0	0	1,622	1,622
46	0	1,935	1,935	0	1	1	0	0	1,622	1,622
47	0	1,935	1,935			1	0	0	1,622	1,622
48	0	1,935	1,935			1	0	0	1,622	1,622
49	0	1,935	1,935			1	0	0	1,622	1,622
50	0	1,935	1,935			1	0	0	1,622	1,622
51	0	1,935	1,935			1	0	0	1,622	1,622
52	0	1,935	1,935			1	0	0	1,622	1,622
53	0	1,935	1,935			1	0	0	1,622	1,622
54	0	1,935	1,935			1	0	0	1,622	1,622
55	0	1,935	1,935			1	0	0	1,622	1,622
56	0	1,935	1,935			1	0	0	1,622	1,622
57	0	1,935	1,935			1	0	0	1,622	1,622
58	0	1,935	1,935			1	0	0	1,622	1,622
59	0	1,935	1,935			1	0	0	1,622	1,622

MONTANA VOLUNTEER FIREFIGHTERS' COMPENSATION ACT  
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**APPENDIX B**  
**DEVELOPMENT OF DISCOUNT RATE**

*Table 1 - Projection of Contributions Continued*  
 Amounts in Thousands, Projections Commence June 30, 2014, Actual Amounts Shown for Year 1

Year	Projected Headcounts			Projected Rates			Projected Contributions			
	Headcount for Current Employees (a)	Headcount for Future Employees (b)	Total Employee Headcount (c) = (a) + (b)	Employee Rate (per employee) (d)	State Rate (per employee) (e)	Rate Available for Amortization (per employee) (f)	Member Contributions for Current Employees (g) = (a) x (d)	State Contributions for Current Employees (h) = (a) x (e)	Contributions Related to Future Employees (i) = (b) x (f)	Total Contributions (j) = (g) + (h) + (i)
60	0	1,935	1,935			\$ 1	\$ 0	\$ 0	\$ 1,622	\$ 1,622
61	0	1,935	1,935			1	0	0	1,622	1,622
62	0	1,935	1,935			1	0	0	1,622	1,622
63	0	1,935	1,935			1	0	0	1,622	1,622
64	0	1,935	1,935			1	0	0	1,622	1,622
65	0	1,935	1,935			1	0	0	1,622	1,622
66	0	1,935	1,935			1	0	0	1,622	1,622
67	0	1,935	1,935			1	0	0	1,622	1,622
68	0	1,935	1,935			1	0	0	1,622	1,622
69	0	1,935	1,935			1	0	0	1,622	1,622
70	0	1,935	1,935			1	0	0	1,622	1,622
71	0	1,935	1,935			1	0	0	1,622	1,622
72	0	1,935	1,935			1	0	0	1,622	1,622
73	0	1,935	1,935			1	0	0	1,622	1,622
74	0	1,935	1,935			1	0	0	1,622	1,622
75	0	1,935	1,935			1	0	0	1,622	1,622
76	0	1,935	1,935			1	0	0	1,622	1,622
77	0	1,935	1,935			1	0	0	1,622	1,622
78	0	1,935	1,935			1	0	0	1,622	1,622
79	0	1,935	1,935			1	0	0	1,622	1,622
80	0	1,935	1,935			1	0	0	1,622	1,622
81	0	1,935	1,935			1	0	0	1,622	1,622
82	0	1,935	1,935			1	0	0	1,622	1,622
83	0	1,935	1,935			1	0	0	1,622	1,622
84	0	1,935	1,935			1	0	0	1,622	1,622
85	0	1,935	1,935			1	0	0	1,622	1,622
86	0	1,935	1,935			1	0	0	1,622	1,622
87	0	1,935	1,935			1	0	0	1,622	1,622
88	0	1,935	1,935			1	0	0	1,622	1,622
89	0	1,935	1,935			1	0	0	1,622	1,622
90	0	1,935	1,935			1	0	0	1,622	1,622
91	0	1,935	1,935			1	0	0	1,622	1,622
92	0	1,935	1,935			1	0	0	1,622	1,622
93	0	1,935	1,935			1	0	0	1,622	1,622
94	0	1,935	1,935			1	0	0	1,622	1,622
95	0	1,935	1,935			1	0	0	1,622	1,622
96	0	1,935	1,935			1	0	0	1,622	1,622
97	0	1,935	1,935			1	0	0	1,622	1,622
98	0	1,935	1,935			1	0	0	1,622	1,622
99	0	1,935	1,935			1	0	0	1,622	1,622
100	0	1,935	1,935			1	0	0	1,622	1,622
101	0	1,935	1,935			1	0	0	1,622	1,622
102	0	1,935	1,935			1	0	0	1,622	1,622
103	0	1,935	1,935			1	0	0	1,622	1,622
104	0	1,935	1,935			1	0	0	1,622	1,622
105	0	1,935	1,935			1	0	0	1,622	1,622
106	0	1,935	1,935			1	0	0	1,622	1,622
107	0	1,935	1,935			1	0	0	1,622	1,622
108	0	1,935	1,935			1	0	0	1,622	1,622
109	0	1,935	1,935			1	0	0	1,622	1,622

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**APPENDIX B**  
**DEVELOPMENT OF DISCOUNT RATE**

**Table 2 - Projection of the Pension Plan's Fiduciary Net Position**  
Amounts in Thousands, Projections Commence June 30, 2014, Actual Amounts Shown for Year 1  
\* From Table 1 - Projection of Contributions, column (j)

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions * (b)	Projected Benefit Payments (c)	Projected Administrative Expense (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
1	\$ 33,270	\$ 1,913	\$ 2,379	\$ 180	\$ 1,480	\$ 34,104
2	34,104	1,861	3,414	66	2,581	35,066
3	35,066	1,821	3,535	68	2,650	35,934
4	35,934	1,790	3,600	70	2,713	36,768
5	36,768	1,764	3,681	71	2,774	37,553
6	37,553	1,741	3,763	73	2,831	38,290
7	38,290	1,723	3,824	74	2,885	39,000
8	39,000	1,707	3,863	75	2,938	39,706
9	39,706	1,694	3,908	76	2,990	40,406
10	40,406	1,682	3,935	76	3,043	41,121
11	41,121	1,673	3,934	76	3,098	41,883
12	41,883	1,665	3,944	76	3,156	42,685
13	42,685	1,659	3,936	76	3,219	43,550
14	43,550	1,653	3,921	76	3,286	44,492
15	44,492	1,648	3,869	75	3,361	45,557
16	45,557	1,644	3,808	74	3,446	46,765
17	46,765	1,640	3,736	72	3,542	48,138
18	48,138	1,637	3,664	71	3,651	49,692
19	49,692	1,634	3,580	69	3,775	51,452
20	51,452	1,632	3,485	67	3,915	53,446
21	53,446	1,630	3,380	65	4,073	55,704
22	55,704	1,629	3,270	63	4,252	58,252
23	58,252	1,628	3,155	61	4,454	61,118
24	61,118	1,627	3,038	59	4,681	64,329
25	64,329	1,626	2,917	56	4,934	67,916
26	67,916	1,625	2,800	54	5,217	71,904
27	71,904	1,625	2,673	52	5,531	76,335
28	76,335	1,624	2,548	49	5,879	81,241
29	81,241	1,624	2,426	47	6,264	86,656
30	86,656	1,623	2,303	45	6,688	92,621
31	92,621	1,623	2,179	42	7,155	99,178
32	99,178	1,623	2,053	40	7,668	106,377
33	106,377	1,623	1,936	37	8,231	114,258
34	114,258	1,623	1,817	35	8,846	122,875
35	122,875	1,623	1,698	33	9,519	132,285
36	132,285	1,623	1,583	31	10,252	142,547
37	142,547	1,623	1,475	28	11,052	153,719
38	153,719	1,622	1,372	27	11,922	165,864
39	165,864	1,622	1,273	25	12,867	179,056
40	179,056	1,622	1,175	23	13,893	193,374
41	193,374	1,622	1,081	21	15,006	208,901
42	208,901	1,622	992	19	16,213	225,725
43	225,725	1,622	907	18	17,520	243,943
44	243,943	1,622	829	16	18,935	263,656
45	263,656	1,622	755	15	20,466	284,974
46	284,974	1,622	687	13	22,121	308,017
47	308,017	1,622	623	12	23,909	332,913
48	332,913	1,622	565	11	25,841	359,801
49	359,801	1,622	510	10	27,926	388,829
50	388,829	1,622	460	9	30,178	420,161
51	420,161	1,622	414	8	32,608	453,970
52	453,970	1,622	371	7	35,230	490,444
53	490,444	1,622	332	6	38,058	529,787
54	529,787	1,622	295	6	41,109	572,217
55	572,217	1,622	262	5	44,398	617,970
56	617,970	1,622	231	4	47,945	667,303
57	667,303	1,622	203	4	51,770	720,487
58	720,487	1,622	178	3	55,893	777,821
59	777,821	1,622	154	3	60,337	839,623

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**APPENDIX B**  
**DEVELOPMENT OF DISCOUNT RATE**

**Table 2 - Projection of the Pension Plan's Fiduciary Net Position Continued**  
Amounts in Thousands, Projections Commence June 30, 2014, Actual Amounts Shown for Year 1  
\* From Table 1 - Projection of Contributions, column (j)

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments (c)	Projected Administrative Expense (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
60	\$ 839,623	\$ 1,622	\$ 133	\$ 3	\$ 65,127	\$ 906,237
61	906,237	1,622	114	2	70,291	978,034
62	978,034	1,622	97	2	75,856	1,055,413
63	1,055,413	1,622	82	2	81,853	1,138,805
64	1,138,805	1,622	69	1	88,316	1,228,673
65	1,228,673	1,622	57	1	95,282	1,325,520
66	1,325,520	1,622	47	1	102,788	1,429,882
67	1,429,882	1,622	38	1	110,876	1,542,342
68	1,542,342	1,622	30	1	119,592	1,663,525
69	1,663,525	1,622	24	0	128,984	1,794,107
70	1,794,107	1,622	19	0	139,104	1,934,814
71	1,934,814	1,622	15	0	150,009	2,086,431
72	2,086,431	1,622	11	0	161,760	2,249,802
73	2,249,802	1,622	8	0	174,421	2,425,837
74	2,425,837	1,622	6	0	188,064	2,615,517
75	2,615,517	1,622	4	0	202,764	2,819,900
76	2,819,900	1,622	3	0	218,604	3,040,123
77	3,040,123	1,622	2	0	235,671	3,277,414
78	3,277,414	1,622	1	0	254,061	3,533,096
79	3,533,096	1,622	1	0	273,877	3,808,594
80	3,808,594	1,622	1	0	295,228	4,105,444
81	4,105,444	1,622	0	0	318,234	4,425,299
82	4,425,299	1,622	0	0	343,022	4,769,944
83	4,769,944	1,622	0	0	369,732	5,141,299
84	5,141,299	1,622	0	0	398,512	5,541,433
85	5,541,433	1,622	0	0	429,523	5,972,578
86	5,972,578	1,622	0	0	462,937	6,437,137
87	6,437,137	1,622	0	0	498,940	6,937,699
88	6,937,699	1,622	0	0	537,733	7,477,055
89	7,477,055	1,622	0	0	579,533	8,058,211
90	8,058,211	1,622	0	0	624,573	8,684,407
91	8,684,407	1,622	0	0	673,103	9,359,132
92	9,359,132	1,622	0	0	725,394	10,086,149
93	10,086,149	1,622	0	0	781,738	10,869,510
94	10,869,510	1,622	0	0	842,449	11,713,581
95	11,713,581	1,622	0	0	907,864	12,623,068
96	12,623,068	1,622	0	0	978,349	13,603,040
97	13,603,040	1,622	0	0	1,054,297	14,658,959
98	14,658,959	1,622	0	0	1,136,131	15,796,713
99	15,796,713	1,622	0	0	1,224,307	17,022,642
100	17,022,642	1,622	0	0	1,319,316	18,343,581
101	18,343,581	1,622	0	0	1,421,689	19,766,893
102	19,766,893	1,622	0	0	1,531,996	21,300,511
103	21,300,511	1,622	0	0	1,650,851	22,952,985
104	22,952,985	1,622	0	0	1,778,918	24,733,525
105	24,733,525	1,622	0	0	1,916,910	26,652,058
106	26,652,058	1,622	0	0	2,065,596	28,719,276
107	28,719,276	1,622	0	0	2,225,806	30,946,704
108	30,946,704	1,622	0	0	2,398,431	33,346,758
109	33,346,758	1,622	0	0	2,584,435	35,932,816

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**APPENDIX B**  
**DEVELOPMENT OF DISCOUNT RATE**

**Table 3 - Actuarial Present Values of Projected Benefit Payments**

Amounts in Thousands, Projections Commence June 30, 2014, Actual Amounts Shown for Year 1

\* From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (a)

\*\* From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (c)

Year (a)	Projected Beginning Fiduciary Net Position * (b)	Projected Benefit Payments for Current Plan Participants ** (c)	"Funded" Portion of Benefit Payments (d) = (c) if (b) >= (c)	"Unfunded" Portion of Benefit Payments (e) = (c) - (d)	Present Value of "Funded" Benefit Payments (f) = (d) / (1+ 7.75%)^(a)	Present Value of "Unfunded" Benefit Payments (g) = (e) / (1+3.80%)^(a)	Present Value of Benefit Payments Using the Single Discount Rate (h) = (c) / (1+ 7.75%)^(a)
1	\$ 33,270	\$ 2,379	\$ 2,379	\$ 0	2,208	\$ 0	\$ 2,208
2	34,104	3,414	3,414	0	2,940	0	2,940
3	35,066	3,535	3,535	0	2,826	0	2,826
4	35,934	3,600	3,600	0	2,671	0	2,671
5	36,768	3,681	3,681	0	2,534	0	2,534
6	37,553	3,763	3,763	0	2,404	0	2,404
7	38,290	3,824	3,824	0	2,268	0	2,268
8	39,000	3,863	3,863	0	2,126	0	2,126
9	39,706	3,908	3,908	0	1,996	0	1,996
10	40,406	3,935	3,935	0	1,865	0	1,865
11	41,121	3,934	3,934	0	1,731	0	1,731
12	41,883	3,944	3,944	0	1,610	0	1,610
13	42,685	3,936	3,936	0	1,492	0	1,492
14	43,550	3,921	3,921	0	1,379	0	1,379
15	44,492	3,869	3,869	0	1,263	0	1,263
16	45,557	3,808	3,808	0	1,154	0	1,154
17	46,765	3,736	3,736	0	1,050	0	1,050
18	48,138	3,664	3,664	0	956	0	956
19	49,692	3,580	3,580	0	867	0	867
20	51,452	3,485	3,485	0	783	0	783
21	53,446	3,380	3,380	0	705	0	705
22	55,704	3,270	3,270	0	633	0	633
23	58,252	3,155	3,155	0	567	0	567
24	61,118	3,038	3,038	0	506	0	506
25	64,329	2,917	2,917	0	451	0	451
26	67,916	2,800	2,800	0	402	0	402
27	71,904	2,673	2,673	0	356	0	356
28	76,335	2,548	2,548	0	315	0	315
29	81,241	2,426	2,426	0	278	0	278
30	86,656	2,303	2,303	0	245	0	245
31	92,621	2,179	2,179	0	215	0	215
32	99,178	2,053	2,053	0	188	0	188
33	106,377	1,936	1,936	0	165	0	165
34	114,258	1,817	1,817	0	144	0	144
35	122,875	1,698	1,698	0	125	0	125
36	132,285	1,583	1,583	0	108	0	108
37	142,547	1,475	1,475	0	93	0	93
38	153,719	1,372	1,372	0	80	0	80
39	165,864	1,273	1,273	0	69	0	69
40	179,056	1,175	1,175	0	59	0	59
41	193,374	1,081	1,081	0	51	0	51
42	208,901	992	992	0	43	0	43
43	225,725	907	907	0	37	0	37
44	243,943	829	829	0	31	0	31
45	263,656	755	755	0	26	0	26
46	284,974	687	687	0	22	0	22
47	308,017	623	623	0	19	0	19
48	332,913	565	565	0	16	0	16
49	359,801	510	510	0	13	0	13
50	388,829	460	460	0	11	0	11
51	420,161	414	414	0	9	0	9
52	453,970	371	371	0	8	0	8
53	490,444	332	332	0	6	0	6
54	529,787	295	295	0	5	0	5
55	572,217	262	262	0	4	0	4
56	617,970	231	231	0	4	0	4
57	667,303	203	203	0	3	0	3
58	720,487	178	178	0	2	0	2
59	777,821	154	154	0	2	0	2

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**APPENDIX B**  
**DEVELOPMENT OF DISCOUNT RATE**

**Table 3 - Actuarial Present Values of Projected Benefit Payments Continued**  
Amounts in Thousands, Projections Commence June 30, 2014, Actual Amounts Shown for Year 1  
\* From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (a)  
\*\* From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (c)

Year (a)	Projected Beginning Fiduciary Net Position * (b)	Projected Benefit Payments for current plan participants ** (c)	"Funded" Portion of Benefit Payments (d) = (c) if (b) >= (c)	"Unfunded" Portion of Benefit Payments (e) = (c) - (d)	Present Value of "Funded" Benefit Payments (f) = (d) / (1+ 7.75%)^(a)	Present Value of "Unfunded" Benefit Payments (g) = (e) / (1+3.80%)^(a)	Present Value of Benefit Payments Using the Single Discount Rate (h) = (c) / (1+ 7.75%)^(a)
60	\$ 839,623	\$ 133	\$ 133	\$ 0	\$ 2	\$ 0	\$ 2
61	906,237	114	114	0	1	0	1
62	978,034	97	97	0	1	0	1
63	1,055,413	82	82	0	1	0	1
64	1,138,805	69	69	0	1	0	1
65	1,228,673	57	57	0	0	0	0
66	1,325,520	47	47	0	0	0	0
67	1,429,882	38	38	0	0	0	0
68	1,542,342	30	30	0	0	0	0
69	1,663,525	24	24	0	0	0	0
70	1,794,107	19	19	0	0	0	0
71	1,934,814	15	15	0	0	0	0
72	2,086,431	11	11	0	0	0	0
73	2,249,802	8	8	0	0	0	0
74	2,425,837	6	6	0	0	0	0
75	2,615,517	4	4	0	0	0	0
76	2,819,900	3	3	0	0	0	0
77	3,040,123	2	2	0	0	0	0
78	3,277,414	1	1	0	0	0	0
79	3,533,096	1	1	0	0	0	0
80	3,808,594	1	1	0	0	0	0
81	4,105,444	0	0	0	0	0	0
82	4,425,299	0	0	0	0	0	0
83	4,769,944	0	0	0	0	0	0
84	5,141,299	0	0	0	0	0	0
85	5,541,433	0	0	0	0	0	0
86	5,972,578	0	0	0	0	0	0
87	6,437,137	0	0	0	0	0	0
88	6,937,699	0	0	0	0	0	0
89	7,477,055	0	0	0	0	0	0
90	8,058,211	0	0	0	0	0	0
91	8,684,407	0	0	0	0	0	0
92	9,359,132	0	0	0	0	0	0
93	10,086,149	0	0	0	0	0	0
94	10,869,510	0	0	0	0	0	0
95	11,713,581	0	0	0	0	0	0
96	12,623,068	0	0	0	0	0	0
97	13,603,040	0	0	0	0	0	0
98	14,658,959	0	0	0	0	0	0
99	15,796,713	0	0	0	0	0	0
100	17,022,642	0	0	0	0	0	0
101	18,343,581	0	0	0	0	0	0
102	19,766,893	0	0	0	0	0	0
103	21,300,511	0	0	0	0	0	0
104	22,952,985	0	0	0	0	0	0
105	24,733,525	0	0	0	0	0	0
106	26,652,058	0	0	0	0	0	0
107	28,719,276	0	0	0	0	0	0
108	30,946,704	0	0	0	0	0	0
109	33,346,758	0	0	0	0	0	0
					\$ 42,148	\$ 0	\$ 42,148