

Vermont Municipal Employees' Retirement System

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October 14, 2014

Board of Trustees Vermont Municipal Employees' Retirement System Montpelier, Vermont 05609

GASB 67 Report as of June 30, 2014

Dear Board Members:

This actuarial valuation report provides information concerning the Vermont Municipal Employees' Retirement System (VMERS) in accordance with the Governmental Accounting Standards Board (GASB) Statement No. 67 (GASB 67). This Statement is an amendment of Statement No. 25, Financial Reporting for Defined Benefit Pension Systems and Note Disclosures for Defined Contribution Systems effective for the fiscal year ending June 30, 2014.

We certify that the information contained in this report has been prepared in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information fairly presents the actuarial position of the System in accordance with the requirements of GASB 67 as of June 30, 2014.

The Board of Trustees and staff of the State Treasurer's office may use this report for the review of the operation of the System. The report may also be used in the preparation of VMERS' audited financial statements. Use of this report for any other purpose or by anyone other than the Board of Trustees, the staff of the State Treasurer's office or its auditors may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. No one may make any representations or warranties based on any statements or conclusions contained in this report without Buck Consultants' prior written consent.

Future actuarial measurements may differ significantly from current measurements due to System experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in System provisions or applicable law. An analysis of the potential range of such future differences is beyond the scope of this report.

In preparing the actuarial results, we have relied upon information provided by State Treasurer's office staff regarding System provisions, participants, assets, contributions and other matters used in the actuarial valuation. Although we did not audit the data, we reviewed the data for reasonableness and consistency with the prior year's information. The accuracy of the results presented herein is dependent on the accuracy of the data.

Board of Trustees, Vermont Municipal Employees' Retirement System October 14, 2014 Page 2



This valuation was prepared based on the actuarial assumptions and methods used in the June 30, 2013 actuarial valuation of the System, except as noted herein. In our opinion, the actuarial assumptions used are appropriate for purposes of the valuation and are reasonably related to the experience of the System and to reasonable long-term expectations.

This report was prepared under my supervision and in accordance with all applicable Actuarial Standards of Practice. I am a Fellow of the Society of Actuaries, an Enrolled Actuary and a Member of the American Academy of Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

I am available to discuss this report with you at your convenience.

Buck Consultants, LLC

David I. Drivell

David L. Driscoll, FSA, EA, MAAA Principal and Consulting Actuary

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Section I – GASB 67 Information

Notes to the Financial Statements for the Year Ended June 30, 2014

Net Pension Liability

The components of the net pension liability as of June 30, 2014, are as follows:

Total pension liability	\$ 543,652,090
System fiduciary net position	(534,525,477)
Net pension liability	\$ 9,126,613
System fiduciary net position as a percentage of	
the total pension liability	98.32%

Actuarial Assumptions

The total pension liability as of June 30, 2014 was determined by rolling forward the total pension liability as of July 1, 2013 to June 30, 2014 using the actuarial assumptions outlined in Section II. These assumptions were selected on the basis of the experience study that was performed for the five-year period ending June 30, 2010. The recommended assumption changes based on this experience study were adopted by the Board at its May 31, 2011 Board meeting, and were effective for the July 1, 2011 actuarial valuation.

Actuarial Cost Method

Entry Age Normal – Level Percentage of Pay

Asset Valuation Method

Invested assets are reported at fair value.

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The long-term expected rate of return on System investments was determined using best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) developed for each major asset class using an econometric model that forecasts a variety of economic environments and then calculates asset class returns based on functional relationships between the economic variables and the asset classes. These best estimate ranges were combined to produce forecasts of the short, intermediate, and longer term horizons by weighting the expected future nominal rates of return by the target asset allocation percentage. The various time horizons in the forecast are intended to capture more recent economic and capital market conditions as well as other plausible environments that could develop in the future over economic cycles. To reflect this in the rate-of-return assumption, a Select and Ultimate assumption setting approach, which is cited in Section 3.6.4 of Actuarial Standard of Practice No. 27 as an alternative to a single assumed rate of return, is employed.

Best estimates of arithmetic rates of return for each major asset class included in the target asset allocation as of June 30, 2014 are summarized in the following table:

	Long-Term Expected
Asset Class	Real Rate of Return
Equity	6.70%
Fixed Income	2.94%
Alternatives	6.26%
Multi-strategy	5.98%

Nominal long-term expected rates of return for these asset classes are equal to the sum of the above expected long-term real rates and the expected long-term inflation rate of 3.0%.

Discount rate: The discount rate used to measure the total pension liability was 8.23%. The projection of cash flows used to determine the discount rate assumed that contributions will continue to be made in accordance with the current funding policy. Based on these assumptions, the fiduciary net position was projected to be available to make all projected future benefit payments to current System members. The assumed discount rate has been determined in accordance with the method prescribed by GASB 67. We believe this assumption is reasonable for the purposes of the measurements required by GASB 67. Tables 1 and 2 provide additional details regarding the determination of the discount rate.

Because the funding policy of the System is based on the collection of contributions that are fixed as a rate of compensation of covered members from both members themselves and their employers, these projections incorporate the excess of contributions over normal cost (determined under the System's funding method) for future new members over the time period until the payment of the last expected benefit payment for current System members. The projection of future new entrants was based on an assumption of a constant active membership and the employment of new entrants whose characteristics matched those of new entrants observed in the past five years.

In the projection of future cash outflows of the System, it was assumed that administrative expenses payable from System assets would amount to approximately \$773,000 in fiscal 2014 and rise by about 3% per annum.

Sensitivity of the net pension liability to changes in the discount rate: The following presents the net pension liability, calculated using the discount rate of 8.23%, as well as what the net

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pension liability would be if it were calculated using a discount rate that is one percentage point lower (7.23%) or one percentage point higher (9.23%) than the current rate:

	1%	Current	1%
	Decrease (<u>7.23%)</u>	Discount Rate (8.23%)	Increase <u>(9.23%)</u>
Net Pension Liability	\$ 76,886,343	\$ 9,126,613	\$ (47,721,737)



Schedules of Required Supplementary Information

Schedule of Changes in the Net Pension Liability and Related Ratios

	FYE .	June 30, 2014
Total pension liability		
Service cost	\$	22,519,428
Interest		42,139,031
Changes of benefit terms		0
Differences between expected and actual experience		0
Changes of assumptions		0
Benefit payments	_	(20,601,380)
Net change in total pension liability	\$	44,057,079
Total pension liability-beginning	\$	499,595,011
Total pension liability-ending (a)	\$	543,652,090
System fiduciary net pension		
Contributions - employers	\$	12,805,737
Contributions – members	·	13,233,728
Net investment income		64,346,116
Benefit payments, including refunds of member contributions		(20,601,380)
Administrative expenses		(588,022)
Other		2,142,868
Net change in System fiduciary net position	\$	71,339,047
System fiduciary net position-beginning	\$	463,186,430
System fiduciary net position-ending (b)	\$	534,525,477
System's net pension liability-ending (a)-(b)	\$	9,126,613
System fiduciary net position as a percentage of the total pension liability		98.32%
Covered payroll as of July 1, 2013 actuarial valuation	\$	220,371,643
Net pension liability as a percentage of covered payroll		4.14%

Notes to Schedule:

Benefit changes since June 30, 2013: None

Changes of assumptions since June 30, 2013: None



Schedule of Employer Contributions

	FYE.	June 30,2014
Actuarially determined contribution	\$	12,805,737
Contributions related to the actuarially determined contribution		12,805,737
Contribution deficiency (excess)	\$	0

Notes to Schedule

Valuation date: Actuarially determined contributions are calculated as of the first day of each fiscal year (i.e., July 1).

The methods and assumptions used to calculate the actuarially determined contribution in the July 1, 2013 actuarial valuation are shown in Section II.

Schedule of Investment Returns

Annual money-weighted rate of return, net of investment expenses FYE June 30, 2014

14.13%



Table 1

Projection of Fiduciary Net Position

(000's omitted)

Fiscal Per				Current	Current	Contributions				
Name 30 Salte Net Position Contributions Contributions New antrants Psymmets Expenses Estimates Expenses Estimates Net Position	Fiscal Year		Beginning	Participant	Participant	less normal cost			Projected	Ending
2014 6.25% 463,186 11,097 11,465 0 37,288 773 28,472 476,139 2015 6.75% 476,139 10,354 10,953 1,1989 22,909 796 32,125 507,835 276,706 507,835 9,739 10,324 3,388 25,486 820, 40,466 576,049 2017 7,50% 540,648 9,208 9,739 5,040 28,107 845 40,366 576,049 2018 7,79% 576,049 8,701 8,200 6,477 30,981 870 44,280 612,935 2118 2,25% 612,935 62,244 8,705 7,894 34,147 886 501,155 652,890 2020 8,25% 612,935 62,244 8,705 7,894 34,147 886 501,155 652,890 2021 8,25% 602,290 7,302 7,706 10,731 14,043 951 66,625 733,477 2022 8,50% 733,477 6,981 7,338 12,240 44,702 990 61,549 775,904 8,576 8,905 13,750 44,422 10,098 68,546 862,141 2025 8,50% 906,150 5,455 6,689 13,750 55,822 10,700 7,721 2006 8,50% 906,150 5,455 6,589 18,497 96,577 1,102 75,726 860,738 2026 8,50% 906,150 5,455 6,589 14,497 96,577 1,102 75,726 860,738 2026 8,50% 906,150 5,455 6,589 14,497 96,577 1,102 75,726 860,738 2026 8,50% 906,150 5,455 6,589 23,139 67,021 1,199 83,137 1,42,523 2029 8,50% 906,150 5,455 6,589 23,139 67,021 1,199 83,137 1,42,523 2029 8,50% 906,150 5,455 6,589 23,139 67,021 1,199 83,137 1,42,523 2029 8,50% 906,150 5,455 6,589 23,139 33,239 73,766 1,354 1,	Ending	Interest	Fiduciary	Member	Employer	for future	Benefit	Administrative	Investment	Fiduciary
2015 6.78% 476,139 10,354 10,853 1,569 22,909 796 32,125 507,835 2016 7,00% 507,835 3,750 10,324 3,588 25,486 820 35,457 540,648 2017 7,50% 540,648 3,208 9,739 5,640 25,107 845 40,356 576,649 2018 7,75% 576,049 8,701 9,200 6,477 30,981 870 44,560 612,335 2019 8,25% 612,935 8,244 8,705 7,894 34,147 896 652,890 2012 8,25% 612,895 7,808 8,232 9,322 37,631 923 53,330 693,028 2021 8,25% 612,890 7,808 8,232 9,322 37,631 923 53,330 693,028 3,377 2022 8,50% 733,477 6,881 7,338 12,240 44,702 890 61,549 775,904 8,578 6,678 6,965 13,750 48,422 1,009 66,028 818,733 2024 8,50% 818,733 6,255 63,690 15,278 52,079 1,039 68,548 882,141 2025 8,50% 960,738 5,686 5,689 18,497 56,677 1,102 7,726 960,738 2027 8,50% 960,738 5,666 5,280 20,199 6,501 1,135 73,339 960,041 2026 8,50% 960,738 5,666 5,280 20,199 6,501 1,135 73,339 960,041 2026 8,50% 960,041 4,705 4,884 21,398 67,021 1,169 88,137 1,042,523 2029 8,50% 1,042,523 4,383 4,529 23,722 70,409 1,204 89,991 1,042,523 2029 8,50% 1,42,914 3,733 3,867 27,443 76,921 1,277 109,962 1,200,740 2032 3,00% 1,42,914 3,733 3,867 27,443 76,921 1,277 109,962 1,200,740 2032 9,00% 1,327,491 3,733 3,867 27,443 76,921 1,277 109,962 1,200,740 2032 9,00% 1,327,491 3,733 3,248 31,403 82,627 1,354 111,557 1,327,491 2,432 2,432 2,432 2,432 2,432 2,432 2,432 2,432 2,432 2,432 2,432 2,432 2,432 2,434 2,435 2,	<u>June 30</u>	Rate	Net Position	Contributions	Contributions	new entrants	Payments	Expenses	<u>Earnings</u>	Net Position
2015 6.78% 476,139 10,354 10,853 1,569 22,909 796 32,125 507,835 2016 7,00% 507,835 3,750 10,324 3,588 25,486 820 35,457 540,648 2017 7,50% 540,648 3,208 9,739 5,640 25,107 845 40,356 576,649 2018 7,75% 576,049 8,701 9,200 6,477 30,981 870 44,560 612,335 2019 8,25% 612,935 8,244 8,705 7,894 34,147 896 652,890 2012 8,25% 612,895 7,808 8,232 9,322 37,631 923 53,330 693,028 2021 8,25% 612,890 7,808 8,232 9,322 37,631 923 53,330 693,028 3,377 2022 8,50% 733,477 6,881 7,338 12,240 44,702 890 61,549 775,904 8,578 6,678 6,965 13,750 48,422 1,009 66,028 818,733 2024 8,50% 818,733 6,255 63,690 15,278 52,079 1,039 68,548 882,141 2025 8,50% 960,738 5,686 5,689 18,497 56,677 1,102 7,726 960,738 2027 8,50% 960,738 5,666 5,280 20,199 6,501 1,135 73,339 960,041 2026 8,50% 960,738 5,666 5,280 20,199 6,501 1,135 73,339 960,041 2026 8,50% 960,041 4,705 4,884 21,398 67,021 1,169 88,137 1,042,523 2029 8,50% 1,042,523 4,383 4,529 23,722 70,409 1,204 89,991 1,042,523 2029 8,50% 1,42,914 3,733 3,867 27,443 76,921 1,277 109,962 1,200,740 2032 3,00% 1,42,914 3,733 3,867 27,443 76,921 1,277 109,962 1,200,740 2032 9,00% 1,327,491 3,733 3,867 27,443 76,921 1,277 109,962 1,200,740 2032 9,00% 1,327,491 3,733 3,248 31,403 82,627 1,354 111,557 1,327,491 2,432 2,432 2,432 2,432 2,432 2,432 2,432 2,432 2,432 2,432 2,432 2,432 2,432 2,434 2,435 2,	2014	6 25%	463 186	11 007	11 /155	0	37 208	773	28 472	476 130
2016 7.00% 507.835 9.750 10.324 3.568 25.466 820 35.457 540,648 2017 7.50% 540,648 9.308 9.739 5.040 28.107 84.5 40.366 576,049 2018 7.75% 576,049 8.701 9.200 6.477 30.981 870 44.360 512,935 2019 8.25% 612,935 8.244 8.705 9.202 3.4147 996 50,155 652,930 2021 8.25% 693,028 7.372 7.765 10.781 44.043 951 56,525 733,477 5.811 7.338 12,240 44.702 990 65,525 733,477 5.811 7.594										
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2055 9.00% 6,040,187 97 108 103,212 69,478 2,594 544,997 6,616,529 2056 9.00% 6,616,529 67 77 108,430 66,324 2,672 597,230 7,253,338 2057 9.00% 7,253,338 46 54 113,893 63,047 2,752 654,922 7,956,454 2058 9.00% 7,956,454 31 37 119,618 59,712 2,835 718,597 8,732,190 2059 9.00% 8,732,190 19 24 125,621 56,369 2,920 788,820 9,587,384 2060 9.00% 9,587,384 11 14 131,921 53,049 3,008 866,206 10,529,479			5,047,872	173						
2056 9.00% 6,616,529 67 77 108,430 66,324 2,672 597,230 7,253,338 2057 9.00% 7,253,338 46 54 113,893 63,047 2,752 654,922 7,956,454 2058 9.00% 7,956,454 31 37 119,618 59,712 2,835 718,597 8,732,190 2059 9.00% 8,732,190 19 24 125,621 56,369 2,920 788,820 9,587,384 2060 9.00% 9,587,384 11 14 131,921 53,049 3,008 866,206 10,529,479										
2057 9.00% 7,253,338 46 54 113,893 63,047 2,752 654,922 7,956,454 2058 9.00% 7,956,454 31 37 119,618 59,712 2,835 718,597 8,732,190 2059 9.00% 8,732,190 19 24 125,621 56,369 2,920 788,820 9,587,384 2060 9.00% 9,587,384 11 14 131,921 53,049 3,008 866,206 10,529,479										
2058 9.00% 7,956,454 31 37 119,618 59,712 2,835 718,597 8,732,190 2059 9.00% 8,732,190 19 24 125,621 56,369 2,920 788,820 9,587,384 2060 9.00% 9,587,384 11 14 131,921 53,049 3,008 866,206 10,529,479										
2059 9.00% 8,732,190 19 24 125,621 56,369 2,920 788,820 9,587,384 2060 9.00% 9,587,384 11 14 131,921 53,049 3,008 866,206 10,529,479		9.00%	7,253,338			113,893			654,922	7,956,454
2060 9.00% 9,587,384 11 14 131,921 53,049 3,008 866,206 10,529,479	2058	9.00%	7,956,454			119,618	59,712		718,597	8,732,190
2061 9.00% 10,529,479 5 6 138,530 49,749 3,098 951,426 11,566,600						131,921			866,206	
	2061	9.00%	10,529,479	5	6	138,530	49,749	3,098	951,426	11,566,600



Table 1 (continued) Projection of Fiduciary Net Position (000's omitted)

			Current	Current	Contributions				
Fiscal Year		Beginning	Participant	Participant	less normal cost			Projected	Ending
Ending	Interest	Fiduciary	Member	Employer	for future	Benefit	Administrative	Investment	Fiduciary
June 30	Rate	Net Position	Contributions	Contributions	new entrants	Payments	Expenses	Earnings	Net Position
2062	9.00%	11,566,600	3	3	145,463	46,484	3,191	1,045,212	12,707,606
2063	9.00%	12,707,606	1	2	152,739	43,302	3,287	1,148,358	13,962,117
2064	9.00%	13,962,117	0	1	160,380	40,206	3,386	1,261,733	15,340,639
2065	9.00%	15,340,639	0	0	168,398	37,209	3,488	1,386,280	16,854,620
2066	9.00%	16,854,620	0	0	176,820	34,314	3,593	1,523,032	18,516,565
2067	9.00%	18,516,565	0	0	185,661	31,529	3,701	1,673,114	20,340,111
2068	9.00%	20,340,111	0	0	194,943	28,860	3,812	1,837,755	22,340,137
2069	9.00%	22,340,137	0	0	204,691	26,311	3,926	2,018,294	24,532,884
2070	9.00%	24,532,884	0	0	0	23,885	4,044	2,206,730	26,711,685
2071	9.00%	26,711,685	0	0	0	21,585	4,165	2,402,918	29,088,853
2072	9.00%	29,088,853	0	0	0	19,413	4,290	2,616,953	31,682,103
2073	9.00%	31,682,103	0	0	0	17,372	4,419	2,850,430	34,510,742
2074	9.00%	34,510,742	0	0	0	15,463	4,552	3,105,086	37,595,812
2075	9.00%	37,595,812	0	0	0	13,686	4,689	3,382,814	40,960,252
2076	9.00%	40,960,252	0	0	0	12,041	4,830	3,685,680	44,629,060
2077	9.00%	44,629,060	0	0	0	10,526	4,975	4,015,933	48,629,492
2078	9.00%	48,629,492	0	0	0	9,140	5,124	4,376,026	52,991,254
2079	9.00%	52,991,254	0	0	0	7,879	5,278	4,768,634	57,746,731
2080	9.00%	57,746,731	0	0	0	6,741	5,436	5,196,670	62,931,224
2081	9.00%	62,931,224	0	0	0	5,720	5,599	5,663,312	68,583,216
2082	9.00%	68,583,216	0	0	0	4,811	5,767	6,172,024	74,744,662
2083	9.00%	74,744,662	0	0	0	4,008	5,940	6,726,582	81,461,296
2084	9.00%	81,461,296	0	0	0	3,306	6,118	7,331,102	88,782,973
2085	9.00%	88,782,973	0	0	0	2,698	6,302	7,990,071	96,764,045
2086	9.00%	96,764,045	0	0	0	2,176	6,491	8,708,382	105,463,760
2087	9.00%	105,463,760	0	0	0	1,733	6,686	9,491,368	114,946,709
2088	9.00%	114,946,709	0	0	0	1,362	6,887	10,344,841	125,283,300
2089	9.00%	125,283,300	0	0	0	1,054	7,094	11,275,138	136,550,291
2090	9.00%	136,550,291	0	0	0	804	7,307	12,289,169	148,831,349
2091	9.00%	148,831,349	0	0	0	602	7,526	13,394,464	162,217,684
2092	9.00%	162,217,684	0	0	0	443	7,752	14,599,231	176,808,720
2093	9.00%	176,808,720	0	0	0	320	7,985	15,912,419	192,712,834
2094	9.00%	192,712,834	0	0	0	226	8,225	17,343,783	210,048,166
2095	9.00%	210,048,166	0	0	0	156	8,472	18,903,955	228,943,493
2096	9.00%	228,943,493	0	0	0	104	8,726	20,604,526	249,539,189
2097	9.00%	249,539,189	0	0	0	68	8,988	22,458,128	271,988,261
2098	9.00%	271,988,261	0	0	0	43	9,258	24,478,534	296,457,494
2099	9.00%	296,457,494	0	0	0	27	9,536	26,680,753	323,128,684
2100	9.00%	323,128,684	0	0	0	16	9,822	29,081,148	352,199,995
2101	9.00%	352,199,995	0	0	0	9	10,117	31,697,554	383,887,423
2102	9.00%	383,887,423	0	0	0	5	10,421	34,549,409	418,426,406
2103	9.00%	418,426,406	0	0	0	3	10,734	37,657,904	456,073,572
2104	9.00%	456,073,572	0	0	0	1	11,056	41,046,135	497,108,650
2105	9.00%	497,108,650	0	0	0	1	11,388	44,739,277	541,836,538
2106	9.00%	541,836,538	0	0	0	0	11,730	48,764,772	590,589,580
2107	9.00%	590,589,580	0	0	0	0	12,082	53,152,530	643,730,028
2108	9.00%	643,730,028	0	0	0	0	12,444	57,935,155	701,652,739
2109	9.00%	701,652,739	0	0	0	0	12,817	63,148,182	764,788,104



Table 2
Projection of Fiduciary Net Position (000's omitted)

Final Person Fina					(0000		Present V	alue of Benefit I	Payments
Ending Interest Fiduciary Benefit Furded Portion Por	Fiscal Year		Beginning		Benefit P	avments			
2014 6.25% 463,186 37,298 37,298 0 36,184 0 35,851 2015 6.75% 476,139 22,909 22,809 0 20,820 0 20,825 2016 7.00% 507,835 22,966 22,866 0 21,629 0 20,885 2017 7.50% 50,648 28,107 28,107 0 22,207 0 21,308 2018 7.75% 576,049 30,981 30,981 0 22,717 0 21,700 2019 8.25% 612,935 34,147 34,147 0 22,130 0 22,082 2020 8.25% 682,980 37,631 37,631 0 23,548 0 22,500 2021 8.25% 663,028 41,043 41,043 0 23,725 0 22,635 2022 8.25% 693,028 41,043 41,043 0 23,725 0 22,635 2022 8.50% 733,477 44,702 44,702 0 23,316 0 22,816 2023 8.50% 775,904 48,422 44,702 0 23,816 0 22,816 2024 8.50% 818,733 52,079 52,079 0 23,569 0 22,816 2025 8.50% 986,141 55,822 55,822 0 23,284 0 22,471 2026 8.50% 996,041 65,025 36,501 0 22,500 0 21,827 2027 8.50% 996,041 67,021 6,7021 0 21,887 2029 8.50% 10,905,155 73,807 70,409 0 21,192 0 20,654 2030 8.75% 10,905,155 73,807 70,409 0 21,192 0 20,654 2030 8.75% 10,905,155 73,807 70,409 0 21,192 0 20,664 2030 8.75% 10,905,155 73,807 70,409 0 121,192 0 20,664 2030 8.75% 10,905,155 73,807 70,409 0 121,192 0 20,664 2030 8.75% 10,905,155 73,807 70,409 0 121,192 0 20,664 2030 8.75% 10,905,155 73,807 70,409 0 121,192 0 20,664 2030 8.75% 10,905,155 73,807 70,409 0 121,192 0 20,664 2030 8.75% 10,905,155 73,807 70,409 0 15,551 0 18,551 2032 9.00% 1,262,105 82,627 87,866 0 15,664 0 15,891 2033 9.00% 1,262,105 82,627 87,867 0 15,551 0 18,454 2033 9.00% 1,262,105 82,627 87,866 0 15,666 0 14,665 2034 9.00% 1,397,725 87,084 87,084 0 15,664 0 15,890 2036 9.00% 1,397,725 87,084 87,084 0 15,664 0 15,890 2037 9.00% 1,556,833 90,362 90,362 0 13,681 0 14,475 2039 9.00% 1,556,833 90,362 90,362 0 13,681 0 14,475 2039 9.00% 1,556,833 90,362 90,362 0 13,681 0 14,475 2039 9.00% 1,556,833 90,362 90,362 0 13,681 0 14,475 2039 9.00% 1,556,833 90,362 90,362 0 13,681 0 14,475 2040 9.00% 1,877,865 90,885 90,885 90,885 0 91,440 0 91,474 2041 9.00% 2,423,052 92,845 90,869 0 7,627 0 8,244 2049 9.00% 1,857,266 90,885 90,885 90,885 90,885 90,885 90,885 90,885 90,885 90,885 90,885 90,885 90,885 90,885 90,885 90,885 90,885 90,885 90,885 90,885 90,88		Interest		Benefit				Portion at	0 0
2015 6,75% 476,139 22,909 22,909 0 20,820 0 20,345	June 30	Rate	Net Position	<u>Payments</u>	Portion	Portion	ultimate rates	3.66%	of 8.23%
2015 6,75% 476,139 22,909 22,909 0 20,820 0 20,345									
2016 7.00% 507,835 25,466 25,466 0 21,629 0 20,885 2017 7.50% 540,648 28,107 28,107 0 22,207 0 21,308 2018 7.75% 576,049 30,981 30,981 0 22,717 0 21,700 2019 8,25% 612,935 34,147 34,147 0 23,130 0 22,098 2020 8,25% 662,890 37,631 37,631 0 23,548 0 22,5673 2022 8,55% 693,028 41,043 41,043 0 23,725 0 22,816 2023 8,50% 773,477 44,702 44,702 0 23,816 0 22,816 22,816 2023 8,50% 775,604 48,422 48,422 0 23,777 0 22,834 2024 8,50% 862,141 55,822 55,822 0 23,284 0 22,471 2026 8,50% 960,150 59,677 59,677 0 22,942 0 22,491 2026 8,50% 950,738 63,501 63,501 0 22,500 0 21,887 0 21,821 2028 8,50% 996,041 67,021 67,021 0 21,887 0 21,821 2029 8,50% 1,090,515 73,807 73,807 0 20,427 0 20,033 20,00% 1,202,749 42,914 56,221 76,921 0 19,531 0 19,261 2023 9,00% 1,202,710 79,766 79,766 0 18,581 0 19,261 2024 9,00% 1,207,491 8,692 86,792 0 16,684 0 15,890 2036 9,00% 1,397,275 87,084 87,084 0 14,644 0 14,965 2039 9,00% 1,473,855 88,737 88,737 0 14,644 0 14,965 2039 9,00% 1,473,855 88,737 88,737 0 14,644 0 14,965 2039 9,00% 1,473,855 88,737 88,839 0 16,684 0 15,880 2036 9,00% 1,473,855 88,737 88,839 0 10,851 0 10,851 0 14,075 2049 9,00% 1,477,474 92,414 56,928 90,862 0 16,684 0 15,890 2049 9,00% 1,472,749 82,612 92,815 92,815 0 10,851 0 11,402 2049 9,00% 1,472,749 82,612 92,815 92,815 0 10,851 0 11,402 2049 9,00% 1,472,749 82,612 92,815 0 10,851 0 11,402 2049 9,00% 1,472,749 82,612 92,815 92,815 0 10,851 0 11,402 2049 9,00% 2,429,052 92,885 0 9,486 0 15,660 0 4,404 9,00% 2,429,052 92,885 90,829 0 3,644 0 1,566 0 3,444 0	2014	6.25%	463,186	37,298	37,298	0	36,184	0	35,851
2017 7.59% 540,648 28,107 28,107 0 22,207 0 21,308	2015	6.75%	476,139	22,909	22,909	0	20,820	0	20,345
2018 7.75% 576,049 30,981 30,981 0 22,717 0 21,700	2016	7.00%	507,835	25,466	25,466	0	21,629	0	20,895
2019 8.25% 612,935 34,147 34,147 0 23,130 0 22,098	2017	7.50%	540,648	28,107	28,107	0	22,207	0	21,308
2020 8.25% 652,890 37,631 37,631 0 23,548 0 22,500	2018	7.75%	576,049	30,981	30,981	0	22,717	0	21,700
2021 8.25% 693,028 41,043 41,043 0 23,725 0 22,673 2022 8.50% 733,477 44,702 0 23,816 0 22,816 2023 8.50% 775,904 48,422 48,422 0 23,777 0 22,834 2024 8.50% 986,141 55,822 55,822 0 23,284 0 22,471 2026 8.50% 996,150 59,677 59,677 0 22,942 0 22,195 2027 8.50% 996,138 63,501 63,501 0 22,800 0 21,827 2028 8.50% 996,041 67,021 67,021 0 21,887 0 21,278 2029 8.50% 996,041 67,021 67,021 0 20,887 0 21,272 2029 8.50% 1,090,715 73,807 73,807 0 20,427 0 20,003 2031 9.00%	2019	8.25%	612,935	34,147	34,147	0	23,130	0	22,098
2022 8.50% 733.477 44,702 44,702 0 23,816 0 22,816 2023 8.50% 775,904 48,422 48,422 0 23,777 0 22,834 2024 8.50% 862,141 55,822 55,822 0 23,284 0 22,471 2026 8.50% 906,150 59,677 59,677 0 22,942 0 22,195 2027 8.50% 906,150 59,677 59,677 0 22,942 0 21,219 2027 8.50% 996,041 67,021 67,021 0 21,887 0 21,278 2029 8.50% 1,042,523 70,409 70,409 0 21,192 0 20,654 2030 8.75% 1,980,515 73,807 73,807 0 20,427 0 20,003 2031 9.00% 1,200,710 79,766 79,766 0 18,581 0 18,681 2033	2020	8.25%	652,890	37,631	37,631	0	23,548	0	22,500
2023 8.50% 775,904 48,422 48,422 0 23,7777 0 22,834 2024 8.50% 818,733 52,079 52,079 0 23,569 0 22,691 2026 8.50% 906,150 59,677 59,677 0 22,942 0 22,195 2027 8.50% 996,141 67,021 0 21,887 0 21,278 2028 8.50% 996,041 67,021 0 21,887 0 21,278 2029 8.50% 1,042,523 70,409 70,409 0 21,192 0 20,654 2030 8.75% 1,090,515 73,807 73,807 0 20,427 0 20,023 2031 9,00% 1,262,105 82,627 0 19,531 0 19,261 2032 9,00% 1,202,710 79,766 79,766 0 18,581 0 18,454 2033 9,00% 1,237,491 85,092<	2021	8.25%	693,028	41,043	41,043	0	23,725	0	22,673
2024 8.50% 818,733 52,079 52,079 0 23,569 0 22,691 2025 8.50% 862,141 55,822 58,822 0 23,284 0 22,471 2026 8.50% 960,138 63,501 63,501 0 22,500 0 21,821 2028 8.50% 960,641 67,021 67,021 0 21,887 0 21,278 2029 8.50% 1,042,523 70,409 70,409 0 21,192 0 20,654 2030 8.75% 1,090,515 73,807 73,807 0 20,427 0 20,003 2031 9.00% 1,220,710 79,766 79,766 0 18,581 0 19,261 2032 9.00% 1,227,491 85,092 85,092 0 16,684 0 16,805 2034 9.00% 1,327,491 85,092 89,084 0 15,668 0 15,860 0 17,662	2022	8.50%	733,477	44,702	44,702	0	23,816	0	22,816
2025 8.50% 862,141 55,822 55,822 0 23,284 0 22,471 2026 8.50% 906,150 59,677 59,677 0 22,942 0 22,195 2027 8.50% 996,041 67,021 0 21,887 0 21,278 2029 8.50% 1,042,523 70,409 70,409 0 21,192 0 20,654 2030 8.75% 1,090,515 73,807 73,807 0 20,427 0 20,003 2031 9.00% 1,142,914 76,921 76,921 0 19,531 0 19,661 2032 9.00% 1,200,710 79,766 79,766 0 18,581 0 18,454 2033 9.00% 1,262,105 82,627 82,627 0 17,658 0 17,662 2034 9.00% 1,337,725 87,084 87,084 0 15,664 0 18,890 2035 9.00%<	2023	8.50%	775,904	48,422	48,422	0	23,777	0	22,834
2026 8.50% 906,150 59,677 59,677 0 22,942 0 22,195 2027 8.50% 960,738 63,501 63,501 0 22,500 0 21,821 2029 8.50% 960,041 67,021 0 21,887 0 21,278 2029 8.50% 1,042,523 70,409 70,409 0 21,192 0 20,664 2030 8.75% 1,090,515 73,807 73,807 0 20,427 0 20,003 2031 9.00% 1,202,710 79,766 79,766 0 18,561 0 19,261 2033 9.00% 1,262,105 82,627 82,627 0 17,688 0 17,662 2034 9.00% 1,337,491 85,092 85,092 0 16,684 0 16,805 2036 9.00% 1,378,855 87,784 87,084 0 15,664 0 18,560 2036 9.00%<	2024	8.50%	818,733	52,079	52,079	0	23,569	0	22,691
2027 8.50% 950,738 63,501 63,501 0 22,500 0 21,821 2028 8.50% 996,041 67,021 67,021 0 21,887 0 21,278 2029 8.50% 1,042,523 70,409 70,409 0 21,192 0 20,654 2030 8.75% 1,090,515 73,807 73,807 0 20,427 0 20,003 2031 9.00% 1,142,914 76,921 76,921 0 19,531 0 19,261 2032 9.00% 1,262,105 82,627 76,66 0 18,581 0 17,662 2034 9.00% 1,327,791 85,092 85,092 0 16,684 0 16,805 2035 9.00% 1,473,855 88,737 80,40 0 15,664 0 15,890 2036 9.00% 1,473,855 88,737 80,40 0 12,604 0 12,704 0 13,62	2025	8.50%	862,141	55,822	55,822	0	23,284	0	22,471
2028 8.50% 996,041 67,021 67,021 0 21,887 0 21,278 2029 8.50% 1,042,523 70,409 70,409 0 21,192 0 20,654 2030 8.75% 1,090,515 73,807 73,807 0 20,427 0 20,003 2031 9.00% 1,142,914 76,921 0 19,531 0 19,261 2032 9.00% 1,202,710 79,766 79,766 0 18,581 0 18,454 2033 9.00% 1,262,105 82,627 82,627 0 17,658 0 17,662 2034 9.00% 1,397,725 87,084 87,084 0 15,664 0 15,890 2036 9.00% 1,556,883 90,362 0 13,681 0 14,075 2038 9.00% 1,647,575 91,462 0 12,704 0 13,162 2039 9.00% 1,747,274	2026	8.50%	906,150	59,677	59,677	0	22,942	0	22,195
2029 8.50% 1,042,523 70,409 70,409 0 21,192 0 20,654 2030 8.75% 1,090,515 73,807 73,807 0 20,427 0 20,003 2031 9.00% 1,122,914 76,921 0 19,531 0 19,261 2032 9.00% 1,200,710 79,766 0 18,581 0 18,454 2033 9.00% 1,262,105 82,627 82,627 0 17,658 0 17,662 2034 9.00% 1,327,491 85,092 85,092 0 16,684 0 16,862 2035 9.00% 1,473,855 88,737 88,737 0 14,644 0 14,960 2037 9.00% 1,647,575 91,462 91,462 0 12,704 0 13,162 2038 9.00% 1,687,296 92,815 92,815 92,815 0 10,851 0 11,402 2040	2027	8.50%	950,738	63,501	63,501	0	22,500	0	21,821
2030 8,75% 1,090,515 73,807 73,807 0 20,427 0 20,003 2031 9,00% 1,142,914 76,921 76,921 0 19,531 0 19,261 2032 9,00% 1,200,710 79,766 79,766 0 18,581 0 18,454 2033 9,00% 1,262,105 82,627 82,627 0 17,668 0 17,662 2034 9,00% 1,327,491 85,092 85,092 0 16,684 0 16,805 2035 9,00% 1,337,725 87,084 87,084 0 15,664 0 15,890 2036 9,00% 1,556,883 90,362 0 13,681 0 14,075 2038 9,00% 1,647,575 91,462 91,462 0 12,704 0 13,162 2039 9,00% 1,747,274 92,214 92,215 0 10,851 0 10,140 2041	2028	8.50%	996,041	67,021	67,021	0	21,887	0	21,278
2031 9.00% 1,142,914 76,921 76,921 0 19,531 0 19,261 2032 9.00% 1,200,710 79,766 79,766 0 18,581 0 18,454 2033 9.00% 1,262,105 82,627 82,627 0 17,658 0 17,662 2034 9.00% 1,327,491 85,092 85,092 0 16,684 0 16,890 2035 9.00% 1,397,725 87,084 87,084 0 15,664 0 15,890 2036 9.00% 1,473,855 88,737 88,737 0 14,644 0 14,960 2037 9.00% 1,647,575 91,462 0 12,704 0 13,162 2039 9.00% 1,747,274 92,214 92,214 0 11,751 0 12,261 2040 9.00% 1,857,296 92,815 92,815 91,40 10,74 0 13,462 2041 <	2029	8.50%	1,042,523	70,409	70,409	0	21,192	0	20,654
2032 9.00% 1,200,710 79,766 79,766 0 18,581 0 18,454 2033 9.00% 1,262,105 82,627 82,627 0 17,688 0 17,662 2034 9.00% 1,327,491 85,092 85,092 0 16,684 0 16,805 2035 9.00% 1,397,725 87,084 87,084 0 15,664 0 15,890 2036 9.00% 1,473,855 88,737 88,737 0 14,644 0 14,960 2037 9.00% 1,556,883 90,362 0 13,681 0 14,075 2038 9.00% 1,647,575 91,462 91,462 0 12,704 0 13,162 2039 9.00% 1,857,296 92,815 92,815 0 10,851 0 11,402 2041 9.00% 1,978,865 92,981 92,981 0 9,973 0 10,554 2042 9	2030	8.75%	1,090,515	73,807	73,807	0	20,427	0	20,003
2033 9.00% 1,262,105 82,627 82,627 0 17,658 0 17,662 2034 9.00% 1,327,491 85,092 85,092 0 16,884 0 16,805 2035 9.00% 1,337,725 87,084 87,084 0 15,664 0 15,890 2036 9.00% 1,473,855 88,737 88,737 0 14,644 0 14,960 2037 9.00% 1,556,883 90,362 90,362 0 13,681 0 14,075 2038 9.00% 1,647,575 91,462 91,462 0 12,704 0 13,162 2039 9.00% 1,857,296 92,815 92,815 0 11,751 0 12,261 2040 9.00% 1,878,865 92,981 92,981 0 9,973 0 10,554 2042 9.00% 2,113,598 92,885 92,885 0 9,140 0 9,741 2	2031	9.00%	1,142,914	76,921	76,921	0	19,531	0	19,261
2034 9.00% 1,327,491 85,092 85,092 0 16,684 0 16,805 2035 9.00% 1,397,725 87,084 87,084 0 15,664 0 15,890 2036 9.00% 1,473,855 88,737 88,737 0 14,644 0 14,960 2037 9.00% 1,556,883 90,362 90,362 0 13,681 0 14,075 2038 9.00% 1,647,575 91,462 91,462 0 12,704 0 13,162 2039 9.00% 1,747,274 92,214 92,214 0 11,751 0 12,261 2040 9.00% 1,857,296 92,815 92,815 0 10,851 0 11,402 2041 9.00% 1,978,865 92,885 92,885 0 9,140 0 9,741 2043 9.00% 2,263,105 92,612 92,885 0 9,140 0 9,741 20	2032	9.00%	1,200,710	79,766	79,766	0	18,581	0	18,454
2035 9.00% 1,397,725 87,084 87,084 0 15,664 0 15,890 2036 9.00% 1,473,855 88,737 88,737 0 14,644 0 14,960 2037 9.00% 1,556,883 90,362 90,362 0 13,681 0 14,075 2038 9.00% 1,647,575 91,462 0 12,704 0 13,162 2039 9.00% 1,647,575 91,462 0 11,751 0 12,261 2040 9.00% 1,857,296 92,815 92,815 0 10,851 0 11,402 2041 9.00% 1,978,865 92,981 92,815 0 9,973 0 10,554 2042 9.00% 2,113,598 92,885 92,885 0 9,140 0 9,741 2043 9.00% 2,242,052 92,088 92,088 0 7,627 0 8,244 2045 9.00% 2,613,	2033	9.00%	1,262,105	82,627	82,627	0	17,658	0	17,662
2036 9.00% 1,473,855 88,737 88,737 0 14,644 0 14,960 2037 9.00% 1,556,883 90,362 90,362 0 13,681 0 14,075 2038 9.00% 1,647,575 91,462 91,462 0 12,704 0 13,162 2039 9.00% 1,747,274 92,214 92,214 0 11,751 0 12,261 2040 9.00% 1,857,296 92,815 92,815 0 10,851 0 11,402 2041 9.00% 1,978,865 92,981 92,981 0 9,973 0 10,554 2042 9.00% 2,113,598 92,885 92,885 0 9,140 0 9,741 2043 9.00% 2,263,105 92,612 92,612 0 8,360 0 8,973 2044 9.00% 2,429,052 92,088 92,088 0 7,627 0 8,244 2045<	2034	9.00%	1,327,491	85,092	85,092	0	16,684	0	16,805
2036 9.00% 1,473,855 88,737 88,737 0 14,644 0 14,960 2037 9.00% 1,556,883 90,362 90,362 0 13,681 0 14,075 2038 9.00% 1,647,575 91,462 91,462 0 12,704 0 13,162 2039 9.00% 1,747,274 92,214 92,214 0 11,751 0 12,261 2040 9.00% 1,857,296 92,815 92,815 0 10,851 0 11,402 2041 9.00% 1,978,865 92,981 92,981 0 9,973 0 10,554 2042 9.00% 2,113,598 92,885 92,885 0 9,140 0 9,741 2043 9.00% 2,263,105 92,612 92,612 0 8,360 0 8,973 2044 9.00% 2,429,052 92,088 92,088 0 7,627 0 8,244 2045<	2035	9.00%	1,397,725	87,084	87,084	0	15,664	0	15,890
2037 9.00% 1,556,883 90,362 90,362 0 13,681 0 14,075 2038 9.00% 1,647,575 91,462 91,462 0 12,704 0 13,162 2039 9.00% 1,747,274 92,214 92,214 0 11,751 0 12,261 2040 9.00% 1,857,296 92,815 92,815 0 10,851 0 11,402 2041 9.00% 1,978,865 92,819 92,981 0 9,973 0 10,554 2042 9.00% 2,113,598 92,885 92,885 0 9,140 0 9,741 2043 9.00% 2,263,105 92,612 92,612 0 8,360 0 8,973 2044 9.00% 2,613,321 91,195 91,195 0 6,929 0 7,543 2046 9.00% 2,818,103 89,830 89,830 0 6,262 0 6,864 2047 <td>2036</td> <td>9.00%</td> <td>1,473,855</td> <td>88,737</td> <td>88,737</td> <td>0</td> <td>14,644</td> <td>0</td> <td>14,960</td>	2036	9.00%	1,473,855	88,737	88,737	0	14,644	0	14,960
2038 9.00% 1,647,575 91,462 91,462 0 12,704 0 13,162 2039 9.00% 1,747,274 92,214 92,214 0 11,751 0 12,261 2040 9.00% 1,857,296 92,815 92,815 0 10,851 0 11,402 2041 9.00% 1,978,865 92,981 92,981 0 9,973 0 10,554 2042 9.00% 2,113,598 92,885 92,885 0 9,140 0 9,741 2043 9.00% 2,263,105 92,612 92,612 0 8,360 0 8,973 2044 9.00% 2,429,052 92,088 92,088 0 7,627 0 8,244 2045 9.00% 2,613,321 91,195 91,195 0 6,929 0 7,543 2046 9.00% 2,818,103 89,830 89,830 0 6,262 0 6,864 2047	2037	9.00%	1,556,883	90,362	90,362		13,681	0	14,075
2039 9.00% 1,747,274 92,214 92,214 0 11,751 0 12,261 2040 9.00% 1,857,296 92,815 92,815 0 10,851 0 11,402 2041 9.00% 1,978,865 92,981 92,981 0 9,973 0 10,554 2042 9.00% 2,113,598 92,885 92,885 0 9,140 0 9,741 2043 9.00% 2,263,105 92,612 92,612 0 8,360 0 8,973 2044 9.00% 2,429,052 92,088 92,088 0 7,627 0 8,244 2045 9.00% 2,613,321 91,195 91,195 0 6,929 0 7,543 2046 9.00% 2,818,103 89,830 89,830 0 6,262 0 6,864 2047 9.00% 3,580,997 86,769 86,769 0 5,091 0 5,660 2049	2038	9.00%	1,647,575	91,462	91,462	0	12,704	0	13,162
2041 9.00% 1,978,865 92,981 92,985 92,885 0 9,140 0 9,741 2042 9.00% 2,113,598 92,885 92,885 0 9,140 0 9,741 2043 9.00% 2,263,105 92,612 92,612 0 8,360 0 8,973 2044 9.00% 2,429,052 92,088 92,088 0 7,627 0 8,244 2045 9.00% 2,613,321 91,195 91,195 0 6,929 0 7,543 2046 9.00% 2,818,103 89,830 89,830 0 6,262 0 6,864 2047 9.00% 3,045,909 88,479 86,769 0 5,658 0 6,247 2048 9.00% 3,298,967 86,769 86,769 0 5,091 0 5,660 2049 9.00% 3,580,103 84,844 84,844 0 4,567 0 5,113 2050 9.00% 4,238,543 80,529 80,529 0 3,648	2039	9.00%				0		0	
2041 9.00% 1,978,865 92,981 92,985 92,885 0 9,140 0 9,741 2042 9.00% 2,113,598 92,885 92,885 0 9,140 0 9,741 2043 9.00% 2,263,105 92,612 92,612 0 8,360 0 8,973 2044 9.00% 2,429,052 92,088 92,088 0 7,627 0 8,244 2045 9.00% 2,613,321 91,195 91,195 0 6,929 0 7,543 2046 9.00% 2,818,103 89,830 89,830 0 6,262 0 6,864 2047 9.00% 3,045,909 88,479 86,769 0 5,658 0 6,247 2048 9.00% 3,298,967 86,769 86,769 0 5,091 0 5,660 2049 9.00% 3,580,103 84,844 84,844 0 4,567 0 5,113 2050 9.00% 4,238,543 80,529 80,529 0 3,648		9.00%	1,857,296						11,402
2042 9.00% 2,113,598 92,885 92,885 0 9,140 0 9,741 2043 9.00% 2,263,105 92,612 92,612 0 8,360 0 8,973 2044 9.00% 2,429,052 92,088 92,088 0 7,627 0 8,244 2045 9.00% 2,613,321 91,195 91,195 0 6,929 0 7,543 2046 9.00% 2,818,103 89,830 89,830 0 6,262 0 6,864 2047 9.00% 3,045,909 88,479 88,479 0 5,658 0 6,247 2048 9.00% 3,298,967 86,769 86,769 0 5,091 0 5,660 2049 9.00% 3,580,103 84,844 84,844 0 4,567 0 5,113 2050 9.00% 3,892,259 82,807 82,807 0 4,089 0 4,611 2051									
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8					49,749				
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Table 2 (continued) Projection of Fiduciary Net Position (000's omitted)

						Present V	alue of Benefit F	Payments
Fiscal Year		Beginning		Benefit P	ayments	Funded Portion	Unfunded	Using Single
Ending	Interest	Fiduciary	Benefit	Funded	Unfunded	at select and	Portion at	Discount Rate
June 30	Rate	Net Position	Payments	Portion	Portion	ultimate rates	3.66%	of 8.23%
2062	9.00%	11,566,600	46,484	46,484	0	816	0	1,002
2063	9.00%	12,707,606	43,302	43,302	0	697	0	862
2064	9.00%	13,962,117	40,206	40,206	0	594	0	739
2065	9.00%	15,340,639	37,209	37,209	0	504	0	632
2066	9.00%	16,854,620	34,314	34,314	0	427	0	539
2067	9.00%	18,516,565	31,529	31,529	0	360	0	457
2068	9.00%	20,340,111	28,860	28,860	0	302	0	387
2069	9.00%	22,340,137	26,311	26,311	0	253	0	326
2070	9.00%	24,532,884	23,885	23,885	0	210	0	273
2071	9.00%	26,711,685	21,585	21,585	0	174	0	228
2072	9.00%	29,088,853	19,413	19,413	0	144	0	190
2073	9.00%	31,682,103	17,372	17,372	0	118	0	157
2074	9.00%	34,510,742	15,463	15,463	0	97	0	129
2075	9.00%	37,595,812	13,686	13,686	0	78	0	105
2076	9.00%	40,960,252	12,041	12,041	0	63	0	86
2077	9.00%	44,629,060	10,526	10,526	0	51	0	69
2078	9.00%	48,629,492	9,140	9,140	0	40	0	56
2079	9.00%	52,991,254	7,879	7,879	0	32	0	44
2080	9.00%	57,746,731	6,741	6,741	0	25	0	35
2080	9.00%	62,931,224	5,720	5,720	0	20	0	27
2081				5,720 4,811	0	15	0	21
	9.00%	68,583,216	4,811					
2083	9.00%	74,744,662	4,008	4,008	0	12	0	16
2084	9.00%	81,461,296	3,306	3,306	0	9	0	12
2085	9.00%	88,782,973	2,698	2,698	0	7	0	9
2086	9.00%	96,764,045	2,176	2,176	0	5	0	7
2087	9.00%	105,463,760	1,733	1,733	0	4	0	5
2088	9.00%	114,946,709	1,362	1,362	0	3	0	4
2089	9.00%	125,283,300	1,054	1,054	0	2	0	3
2090	9.00%	136,550,291	804	804	0	1	0	2
2091	9.00%	148,831,349	602	602	0	1	0	1
2092	9.00%	162,217,684	443	443	0	1	0	1
2093	9.00%	176,808,720	320	320	0	0	0	1
2094	9.00%	192,712,834	226	226	0	0	0	0
2095	9.00%	210,048,166	156	156	0	0	0	0
2096	9.00%	228,943,493	104	104	0	0	0	0
2097	9.00%	249,539,189	68	68	0	0	0	0
2098	9.00%	271,988,261	43	43	0	0	0	0
2099	9.00%	296,457,494	27	27	0	0	0	0
2100	9.00%	323,128,684	16	16	0	0	0	0
2101	9.00%	352,199,995	9	9	0	0	0	0
2102	9.00%	383,887,423	5	5	0	0	0	0
2103	9.00%	418,426,406	3	3	0	0	0	0
2104	9.00%	456,073,572	1	1	0	0	0	0
2105	9.00%	497,108,650	1	1	0	0	0	0
2106	9.00%	541,836,538	0	0	0	0	0	0
2107	9.00%	590,589,580	0	0	0	0	0	0
2108	9.00%	643,730,028	0	0	0	0	0	0
2109	9.00%	701,652,739	0	0	0	0	0	0
				q				



Section II – Actuarial Assumptions and Methods

NOTE: These assumptions are used in the determination of VMERS' funding requirements. Except as noted in Section I, they are also used for determining liabilities under GASB 67.

INTEREST RATE: A select-and-ultimate interest rate set, specified below. The interest rate set is restarted every year.

> Year 1: 6.25% Year 10: 8.50% Year 2: 6.75% Year 11: 8.50% Year 3: 7.00% Year 12: 8.50% Year 4: 7.50% Year 13: 8.50% Year 5: 7.75% Year 14: 8.50% Year 6: 8.25% Year 15: 8.50% Year 7: 8.25% Year 16: 8.75% Year 17 and later: 9.00% Year 8: 8.25% Year 9: 8.50%

SALARY INCREASES: 5% per year.

DEATHS:

Active participants - 50% of the probabilities in the 1995 Buck Mortality Tables for Males and Females

Non-disabled retirees and terminated vested participants - The 1995 Buck Mortality Tables with no set-back for males and one-year set-back for females

Disabled retirees – RP-2000 Disabled Life Tables

Beneficiaries – 1995 Buck Mortality Tables for Males and Females

The mortality assumption was chosen to recognize improved longevity experienced as well as that expected prior to the next review of assumptions

FUTURE EXPENSES: An expense adjustment based on actual expenses for the previous year is reflected in the development of recommended employer contribution levels.

ACTUARIAL COST METHOD: Projected benefit cost method. The unfunded accrued liability is amortized in installments increasing by 5% per year.

SPOUSE'S AGE: Husbands are assumed to be three years older than their wives.

PERCENT MARRIED: 85% of male members and 50% of female members are assumed to be married.

COST-OF-LIVING ADJUSTMENTS TO BENEFITS OF TERMINATED VESTED AND RETIRED PARTICIPANTS: Assumed to occur at the rate of 1.5% per annum for Group A members and 1.8% per annum for members of Groups B, C and D.

ASSET VALUATION METHOD (for funding purposes): A smoothing method is used, under which the value of assets for actuarial purposes equals market value less a five-year phase-in of the differences



between actual and assumed investment return. The value of assets for actuarial purposes may not differ from the market value of assets by more than 20%.

INACTIVE MEMBERS: A liability of 200% of accumulated contributions with interest is maintained for inactive participants.

INFLATION: The separately stated assumptions for investment return, salary increases and cost of living adjustments are consistent with an expected annual inflation rate of 3.00% to 3.25% per year

Withdrawal

Service	Male	Female
0	25.0%	30.0%
1	18.0%	22.0%
2	15.0%	18.0%
3	13.5%	15.0%
4	12.0%	12.0%
5	10.0%	10.0%
6	9.0%	9.0%
7	8.0%	8.0%
8	8.0%	6.0%
9	7.0%	6.0%
10	4.0%	5.0%

Disability						
Age	Male	Female				
25	0.01%	0.01%				
30	0.01%	0.01%				
35	0.02%	0.02%				
40	0.03%	0.03%				
45	0.05%	0.05%				
50	0.09%	0.09%				
55	0.18%	0.18%				
60	0.32%	0.32%				



Retirement

	Group A		Group B		Group C		Group D	
Age	Male	Female	Male	Female	Male	Female	Male	Female
Age								
50	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%
51	0.0	0.0	0.0	0.0	0.0	0.0	35.0	35.0
52	0.0	0.0	0.0	0.0	0.0	0.0	30.0	30.0
53	0.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0
54	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0
55	5.0	7.0	7.0	7.0	30.0	0.0	15.0	15.0
56	5.0	7.0	7.0	7.0	10.0	5.0	10.0	10.0
57	5.0	7.0	7.0	7.0	5.0	5.0	10.0	10.0
58	5.0	7.0	7.0	7.0	20.0	25.0	10.0	10.0
59	12.0	7.0	7.0	7.0	20.0	5.0	10.0	10.0
60	12.0	7.0	7.0	7.0	10.0	5.0	15.0	15.0
61	12.0	7.0	20.0	15.0	10.0	5.0	10.0	10.0
62	20.0	7.0	30.0	25.0	40.0	5.0	25.0	25.0
63	15.0	15.0	20.0	20.0	10.0	20.0	25.0	25.0
64	15.0	25.0	15.0	20.0	20.0	20.0	25.0	25.0
65	40.0	25.0	40.0	40.0	35.0	35.0	100.0	100.0
66	15.0	20.0	25.0	15.0	35.0	35.0	100.0	100.0
67	20.0	20.0	25.0	20.0	35.0	35.0	100.0	100.0
68	20.0	20.0	25.0	20.0	35.0	35.0	100.0	100.0
69	20.0	20.0	25.0	20.0	35.0	35.0	100.0	100.0
70	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Section III – Summary of System Provisions

Effective Date July 1, 1975

Creditable Service Service as a member plus purchased service.

Membership Full time employees of participating municipalities.

Municipality elects coverage under Groups A, B, C or

D provisions.

Average Final Compensation (AFC) Group A - average annual compensation during

highest 5 consecutive years.

Groups B and C - average annual compensation

during highest 3 consecutive years.

Group D - average annual compensation during

highest 2 consecutive years.

Service Retirement Allowance

Group A - The earlier of age 65 with 5 years of Eligibility

service or age 55 with 35 years of service.

Group B - The earlier of age 62 with 5 years of

service or age 55 with 30 years of service.

Groups C and D - Age 55 with 5 years of service.

Amount Group A - 1.4% of AFC times service.

> Group B - 1.7% of AFC times service as Group B member plus percentage earned as Group A member

times AFC.

Group C - 2.5% of AFC times service as a Group C

member plus percentage earned as a Group A or B

member times AFC.

Group D - 2.5% of AFC times service as a Group D member plus percentage earned as a Group A, B or

C member times AFC.

Maximum benefit is 60% of AFC for Groups A and B and 50% of AFC for Groups C and D. The above amounts include the portion of the allowance

provided by member contributions.



Early Retirement Allowance

Eligibility Age 55 with 5 years of service for Groups A and B; age

50 with 20 years of service for Group D.

Amount Normal allowance based on service and AFC at early

retirement, reduced by 6% for each year commencement precedes Normal Retirement Age for Group A and B members, and payable without

reduction to Group D members

Vested Retirement Allowance

Eligibility 5 years of service.

Amount Allowance beginning at normal retirement age based

on AFC and service at termination. The AFC is to be adjusted annually by one-half of the percentage change in the Consumer Price Index, subject to the limits on

"Post-Retirement Adjustments" described below.

Disability Retirement Allowance

Eligibility 5 years of service and disability as determined by

Retirement Board.

Amount Immediate allowance based on AFC and service to

date of disability; children's benefit of 10% of AFC payable to up to three minor children (or children up to age 23 if enrolled in full-time studies) of a disabled

Group D member.

Death Benefit

Eligibility Death after 5 years of service.

Amount For Groups A, B and C, reduced early retirement

allowance under 100% survivor option commencing immediately or, if greater, survivor's benefit under disability annuity computed as of date of death. For Group D, 70% of the unreduced accrued benefit plus

children's benefit.

Optional Benefit and Death after

Retirement

For Groups A, B and C, lifetime allowance or actuarially equivalent 50% or 100% joint and survivor allowance with refund of contribution guarantee. For Group D, lifetime allowance or 70% contingent annuitant option

with no reduction.



Refund of Contribution Upon termination, if the member so elects or if no other

benefit is payable, the member's accumulated

contributions are refunded.

Post-Retirement Adjustments Allowances in payment for at least one year increased

on each January 1 by one-half of the percentage increase in consumer price index but not more than 2%

for Group A and 3% for Groups B, C and D.

Member Contributions Group A - 2.5% effective July 1, 2000 (reduced from

3.0%).

Group B – 4.75% effective July 1, 2014 (increased from

4.625%).

Group C - 9.625% effective July 1, 2014 and 9.75%

effective January 1, 2015 (increased from 9.5%).

Group D - 11.25% effective July 1, 2014 (increased

from 11.125%).

Employer Contributions

Group A - 4.0%

Group B – 5.375% (changed from 5.125%) effective

July 1, 2014.

Group C – 6.875% from July 1, 2014, to December 31,

2014 (changed from 6.625%) and then 7.0% effective

January 1, 2015.

Group D - 9.75% % effective July 1, 2014 (increased

from 9.625%).

Retirement Stipend \$25 per month payable at the option of the Board to

retirees.