GRS Gabriel Roeder Smith & Company
Consultants & Actuaries

MINNESOTA STATE RETIREMENT SYSTEM

JUDGES RETIREMENT FUND

GASB STATEMENTS NO. 67 AND NO. 68 ACCOUNTING AND FINANCIAL REPORTING FOR PENSIONS

JUNE 30, 2014

GRS
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December 1, 2014

Minnesota State Retirement System
Judges Retirement Fund
St. Paul, Minnesota

Dear Board of Directors:

This report provides accounting and financial reporting information that is intended to comply with the Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68 for the Judges Retirement Fund ("JRF"). These calculations have been made on a basis that is consistent with our understanding of these accounting standards.

GASB Statement No. 67 is the accounting standard that applies to the financial reports issued by retirement systems. GASB Statement No. 68 establishes accounting and financial reporting for state and local government employers who provide their employees (including former employees) pension benefits through a trust.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of providing reporting and disclosure information that satisfies the requirements of GASB Statements No. 67 and No. 68. The calculation of the plan's liability for this report may not be applicable for funding purposes of the plan. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement No. 67 may produce significantly different results. The information in this report is calculated on a total plan basis. MSRS is responsible for preparing the Schedule of Employer Allocations and the Schedule of Pension Amounts by Employer. This report may be provided to parties other than the Minnesota State Retirement System (MSRS) only in its entirety and only with the permission of MSRS.

This report is based upon information, furnished to us by MSRS, concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different, please let us know. This information was checked for internal consistency, but it was not otherwise audited.

To the best of our knowledge, the information contained with this report is accurate and fairly represents the actuarial position of the Judges Retirement Fund as of the measurement date. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board. Brian B. Murphy and Bonita J. Wurst are members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.
Respectfully submitted,

By Brian B. Murphy
Brian B. Murphy
FSA, EA, MAAA

By Bonita J. Wurst
Bonita J. Wurst
ASA, EA, MAAA

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SECTION A

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

As of June 30, 2014 *(Dollars in Thousands)*

	2014
Actuarial Valuation Date	June 30, 2014
Measurement Date of the Net Pension Liability	June 30, 2014
Membership	
Number of	
- Service Retirements	227
- Survivors	84
- Disability Retirements	24
- Deferred Retirements	16
- Terminated other non-vested	0
- Active Members	316
- Total	667
Covered-Employee Payroll	$ 41,893 (1)
Net Pension Liability	
Total Pension Liability	$ 381,511
Plan Fiduciary Net Position	175,556
Net Pension Liability	$ 205,955
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	46.02%
Net Pension Liability as a Percentage of Covered-Employee Payroll	491.62%
Development of the Single Discount Rate	
Single Discount Rate	5.78%
Long-Term Expected Rate of Investment Return	7.90%
Long-Term Municipal Bond Rate (2)	4.29%
Last year ending June 30 in the 2015 to 2114 projection period for which projected benefit payments are fully funded	2034
Total Pension Expense/(Income)	$ 13,246

Deferred Outflows and Deferred Inflows of Resources by Source to be recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience in the measurement of Total Pension Liability	$ 4,064	$ 0
Changes in assumptions	0	6,733
Net difference between projected and actual earnings on pension plan investments	0	12,837
Total	$ 4,064	$ 19,570

(1) *Assumed equal to actual employer contributions divided by employer contribution rate.*

(2) *Based on the Bond Buyer 20-Bond Index of general obligation municipal bonds as of June 26, 2014 (i.e., the weekly rate closest to but not later than the Measurement Date).*

DISCUSSION

Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67, *Financial Reporting for Pension Plans* establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability. Similarly, GASB Statement No. 68, *Accounting and Financial Reporting for Pensions* establishes standards for state and local government employers (as well as non-employer contributing entities) to account for and disclose the net pension liability, pension expense, and other information associated with providing retirement benefits to their employees (and former employees) on their basic financial statements.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain information, such as notes regarding accounting policies and investments, is not included in this report and the retirement system and/or plan sponsor will be responsible for preparing and disclosing that information to comply with these accounting standards.

Financial Statements

GASB Statement No. 68 requires state and local governmental employers to recognize the net pension liability and the pension expense on their financial statements. The net pension liability is the difference between the total pension liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement).

The pension expense recognized each fiscal year is equal to the change in the net pension liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the difference between expected and actual experience in the measurement of the Total Pension Liability, assumption changes, and investment experience.

Pension plans that prepare their own, stand-alone financial statements are required to present two financial statements – a Statement of Fiduciary Net Position and a Statement of Changes in Fiduciary Net Position in accordance with GASB Statement No. 67. The *Statement of Fiduciary Net Position* presents the assets and liabilities of the pension plan at the end of the pension plan's reporting period. The *Statement of Changes in Fiduciary Net Position* presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expenses, and net increase or decrease in the fiduciary net position.

Notes to Financial Statements

GASB Statement No. 68 requires the notes to the employer's financial statements to disclose the total pension expense, the pension plan's liabilities and assets, and deferred outflows and inflows of resources related to pensions.

Both GASB Statements No. 67 and No. 68 require the notes to the financial statements for the employers and pension plans to include certain descriptive information about the pension plans through which the pension benefits are provided. The list of disclosure items should include:

- a description of benefits provided by the plan;
- the classes of employees and number of members covered by the pension plan;
- a description of the plan's funding policy, which includes member and employer contribution requirements;
- the pension plan's investment policies;
- the pension plan's fiduciary net position, net pension liability, and the pension plan's fiduciary net position as a percentage of the total pension liability;
- the net pension liability using a discount rate that is 1% higher and 1% lower than the current discount rate used to calculate the total pension liability and net pension liability for financial reporting purposes;
- significant assumptions and methods used to calculate the total pension liability;
- inputs to the discount rates; and
- certain information about mortality assumptions and the dates of experience studies.

Retirement systems that issue stand-alone financial statements are required to disclose additional information in accordance with Statement No. 67. This information includes:

- the composition of the pension plan's board and the authority under which benefit terms may be amended;
- a description of how fair value is determined;
- information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets; and
- annual money-weighted rate of return.

MSRS' comprehensive annual financial report, which contains the basic financial statements and related note disclosures for the Judges Retirement Fund can be obtained from MSRS at 60 Empire Drive, Suite 300, St. Paul, MN, 55103 or requested via email at info@msrs.us or telephone at 1-800-657-5757.

Required Supplementary Information

GASB Statement No. 67 requires a 10-year fiscal history of:

- sources of changes in the net pension liability;
- information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll; and
- comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. The net pension liability and pension expense should be measured as of the pension plan's fiscal year end (measurement date) on a date that is within the employer's prior fiscal year. If the actuarial valuation used to determine the total pension liability is not calculated as of the measurement date, the total pension liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total pension liability shown in this report is based on an actuarial valuation performed as of June 30, 2014 and a measurement date of June 30, 2014.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a single discount rate that reflects (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the long-term expected rate of return on pension plan investments is 7.90%; the municipal bond rate is 4.29% (based on the weekly rate closest to but not later than the measurement date of the 20-Year Bond Buyer Index as published by the Federal Reserve Board); and the resulting single discount rate is 5.78%.

Effective Date and Transition

GASB Statements No. 67 and No. 68 are effective for fiscal years beginning after June 15, 2013, and June 15, 2014 respectively. Earlier application is encouraged by the GASB.

SECTION B

FINANCIAL STATEMENTS

PENSION EXPENSE UNDER GASB STATEMENT NO. 68

Fiscal Year Ended June 30, 2014 *(Dollars in Thousands)*

A. Expense

1.	Service Cost	$	12,075
2.	Interest on the Total Pension Liability		20,535
3.	Current-Period Benefit Changes		0
4.	Employee Contributions (made negative for addition here)		(3,578)
5.	Projected Earnings on Plan Investments (made negative for addition here)		(11,965)
6.	Pension Plan Administrative Expense		55
7.	Other Changes in Plan Fiduciary Net Position		0
8.	Recognition of Outflow (Inflow) of Resources due to differences between expected and actual experience in the measurement of the Total Pension Liability		1,016
9.	Recognition of Outflow (Inflow) of Resources due to assumption changes		(1,683)
10.	Recognition of Outflow (Inflow) of Resources due to the difference between projected (7.90%) and actual earnings on Pension Plan Investments		(3,209)
11.	**Total Pension Expense / (Income)**	**$**	**13,246**

Statement of Outflows and Inflows arising from Current Reporting Period

Fiscal Year Ended June 30, 2014 *(Dollars in Thousands)*

A. Outflows (Inflows) of Resources due to Liabilities		
1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	$	5,080
2. Assumption Changes (gains) or losses	$	(8,416)
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}		5.0000
4. Outflow (Inflow) of Resources to be recognized in the current pension expense for the difference between expected and actual experience of the Total Pension Liability	$	1,016
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	$	(1,683)
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	$	(667)
7. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for the difference between expected and actual experience of the Total Pension Liability	$	4,064
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes	$	(6,733)
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	$	(2,669)
B. Outflows (Inflows) of Resources due to Assets		
1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	$	(16,046)
2. Recognition period for Assets {in years}		5.0000
3. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Assets	$	(3,209)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	$	(12,837)

STATEMENT OF OUTFLOWS AND INFLOWS ARISING FROM CURRENT AND PRIOR REPORTING PERIODS

Fiscal Year Ended June 30, 2014 *(Dollars in Thousands)*

A. Outflows and Inflows of Resources due to Liabilities and Assets to be recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows/ (Inflows) of Resources
1. Due to Liabilities	$ 1,016	$ 1,683	$ (667)
2. Due to Assets	0	3,209	(3,209)
3. Total	$ 1,016	$ 4,892	$ (3,876)

B. Outflows and Inflows of Resources by Source to be recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows/ (Inflows) of Resources
1. Differences between expected and actual experience	$ 1,016	$ 0	$ 1,016
2. Assumption Changes	0	1,683	(1,683)
3. Net Difference between projected and actual earnings on pension plan investments	0	3,209	(3,209)
4. Total	$ 1,016	$ 4,892	$ (3,876)

C. Deferred Outflows and Deferred Inflows of Resources by Source to be recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows/ (Inflows) of Resources
1. Differences between expected and actual experience	$ 4,064	$ 0	$ 4,064
2. Assumption Changes	0	6,733	(6,733)
3. Net Difference between projected and actual earnings on pension plan investments	0	12,837	(12,837)
4. Total	$ 4,064	$ 19,570	$ (15,506)

D. Deferred Outflows and Deferred Inflows of Resources by Year to be recognized in Future Pension Expenses

Year Ending June 30	Net Deferred Outflows/ (Inflows) of Resources
2015	$ (3,876)
2016	(3,876)
2017	(3,876)
2018	(3,878)
2019	0
Thereafter	0
Total	$ (15,506)

STATEMENT OF FIDUCIARY NET POSITION

As of June 30, 2014 *(Dollars in Thousands)*

Assets		**June 30, 2014**
Cash & Short-term Investments	$	5,198
Receivables		60
Investment Pools (at fair value)		170,415
Securities Lending Collateral		18,963
Capital Assets		0
Total Assets	**$**	**194,636**
Total Deferred Outflows of Resources	**$**	**0**
Total Liabilities	**$**	**(19,080)**
Total Deferred Inflows of Resources	**$**	**0**
Net Position Restricted for Pensions	**$**	**175,556**

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

For the Fiscal Year Ended June 30, 2014 *(Dollars in Thousands)*

Change in Fiduciary Net Position	Market Value
Year Ending	**June 30, 2014**
1. Net position at market value at beginning of year	**$ 155,398**
Additions	
2. Contributions	
a. Member	$ 3,578
b. Employer	9,426
c. Other sources	0
d. Total contributions	$ 13,004
3. Investment income	
a. Investment income/(loss)	$ 28,255
b. Investment expenses	(244)
c. Net investment income/(loss)	$ 28,011
4. Other Additions	$ 0
5. Total Additions: *(2.d.) + (3.c.) + (4.)*	**$ 41,015**
Deductions	
6. Benefits Paid	
a. Annuity benefits	$ (20,802)
b. Refunds	0
c. Total benefits paid	$ (20,802)
7. Expenses	
a. Other deductions	$ 0
b. Administrative	(55)
c. Total expenses	$ (55)
8. Total deductions: *(6.c.) + (7.c.)*	**$ (20,857)**
9. Net increase/(decrease) in fiduciary net position	**$ 20,158**
10. Net position at market value at end of year *(1.) + (5.) + (8.)*	**$ 175,556**
11. State Board of Investment calculated investment return	18.6%

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS CURRENT PERIOD

Fiscal Year Ended June 30, 2014 *(Dollars in Thousands)*

A. Total pension liability			
1. Service Cost	$	12,075	
2. Interest on the Total Pension Liability		20,535	
3. Changes of benefit terms		0	
4. Difference between expected and actual experience of the Total Pension Liability		5,080	
5. Changes of assumptions		(8,416)	(1)
6. Benefit payments, including refunds of employee contributions		(20,802)	
7. Net change in total pension liability	$	8,472	
8. Total pension liability – beginning		373,039	
9. Total pension liability – ending	**$**	**381,511**	
B. Plan fiduciary net position			
1. Contributions – employer	$	9,426	
2. Contributions – employee		3,578	
3. Net investment income		28,011	
4. Benefit payments, including refunds of employee contributions		(20,802)	
5. Pension Plan Administrative Expense		(55)	
6. Other changes		0	
7. Net change in plan fiduciary net position	$	20,158	
8. Plan fiduciary net position – beginning		155,398	
9. Plan fiduciary net position – ending	**$**	**175,556**	
C. Net pension liability, *A.9 - B.9.*	**$**	**205,955**	
D. Plan fiduciary net position as a percentage of the total pension liability, *B.9 / A.9.*		**46.02%**	
E. Covered-employee payroll	**$**	**41,893**	(2)
F. Net pension liability as a percentage of covered-employee payroll, *C. / E.*		**491.62%**	

(1) Assumption changes are summarized on page 26.
(2) Assumed equal to actual employer contributions divided by employer contribution rate.

Schedules of Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios Multiyear *(Dollars in Thousands)*

Last 10 Fiscal Years (which will be built prospectively)

Fiscal year ending June 30,	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Total Pension Liability										
Service Cost	$ 12,075									
Interest on the Total Pension Liability	20,535									
Benefit Changes	0									
Difference between Expected and Actual Experience	5,080									
Assumption Changes	(8,416) [1]									
Benefit Payments	(20,802)									
Refunds	0									
Net Change in Total Pension Liability	$ 8,472									
Total Pension Liability - Beginning	373,039									
Total Pension Liability - Ending (a)	**$ 381,511**									
Plan Fiduciary Net Position										
Employer Contributions	$ 9,426									
Employee Contributions	3,578									
Pension Plan Net Investment Income	28,011									
Benefit Payments	(20,802)									
Refunds	0									
Pension Plan Administrative Expense	(55)									
Other	0									
Net Change in Plan Fiduciary Net Position	$ 20,158									
Plan Fiduciary Net Position - Beginning	155,398									
Plan Fiduciary Net Position - Ending (b)	**$ 175,556**									
Net Pension Liability - Ending (a) - (b)	$ 205,955									
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	46.02 %									
Covered-Employee Payroll	$ 41,893 [2]									
Net Pension Liability as a Percentage of Covered-Employee Payroll	491.62 %									

Notes to Schedule:

[1] *Assumption changes are summarized on page 26.*
[2] *Assumed equal to actual employer contributions divided by employer contribution rate.*

Schedules of Required Supplementary Information

Schedule of Net Pension Liability Multiyear *(Dollars in Thousands)*

Last 10 Fiscal Years (which will be built prospectively)

FY Ending June 30,	Total Pension Liability (a)	Plan Net Position (b)	Net Pension Liability (a) - (b) = (c)	Plan Net Position as a % of Total Pension Liability (b)/(c)	Covered-Employee Payroll (d)	Net Pension Liability as a % of Covered-Employee Payroll (c)/(d)
2005						
2006						
2007						
2008						
2009						
2010						
2011						
2012						
2013						
2014	$ 381,511	$ 175,556	$ 205,955	46.02%	$ 41,893	491.62%

SCHEDULE OF CONTRIBUTIONS MULTIYEAR *(Dollars in Thousands)*

Last 10 Fiscal Years

FY Ending June 30,	Actuarially Determined Contribution [1]	Actual Contributions	Contribution Deficiency (Excess)	Covered-Employee Payroll	Actual Contributions as a % of Covered-Employee Payroll
	(a)	(b)	(a) - (b) = (c)	(d)	(b)/(d)
2005	$ 7,912	$ 7,225	$ 687	$ 35,941	20.10%
2006	7,779	7,336	443	36,529	20.08
2007	8,331	7,572	759	36,195	20.92
2008	10,045	7,936	2,109	38,296	20.72
2009	8,985	8,219	766	39,444	20.84
2010	9,400	8,283	1,117	39,291	21.08
2011	9,804	8,297	1,507	40,473	20.50
2012	9,879	7,922	1,957	38,644 [2]	20.50
2013	13,524	8,177	5,347	39,888 [2]	20.50
2014	14,193	9,426	4,767	41,893 [2]	22.50

NOTES TO SCHEDULE OF CONTRIBUTIONS

Valuation Date:	June 30, 2014
Notes	(1) Actuarially determined contribution rates are calculated as of each July 1. (2) Assumed equal to actual employer contributions divided by employer contribution rate

Methods and Assumptions Used to Determine Contribution Rates Reported in this Schedule:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	25 years
Asset Valuation Method	5-Year smoothed market; no corridor
Inflation	3.00%
Salary Increases	3.00%
Investment Rate of Return	8.00% through June 30, 2017; 8.50% thereafter
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2012 valuation pursuant to an experience study of the period 2007 - 2011, prepared by a former actuary.
Healthy Post-Retirement Mortality	RP-2000 annuitant generational mortality table, projected with mortality improvement scale AA, white collar adjustment, set back one year for males and set back two years for females.

Other Information:

Benefit Increases After Retirement	The post-retirement increase is assumed to increase from 2.0% to 2.5% beginning January 1, 2034. See separate funding report as of July 1, 2014 for additional detail. To obtain this report, contact MSRS as noted on page 3.

Schedule of Investment Returns Multiyear
Last 10 Fiscal Years

FY Ending June 30,	Annual Return[1]
2005	
2006	
2007	
2008	
2009	
2010	
2011	
2012	
2013	
2014	18.66 %

[1] *Annual money-weighted rate of return, net of investment expenses.*

The Minnesota State Board of Investment (SBI) compiled this data and the related investment notes and provided it to MSRS for GASB-compliance purposes. MSRS furnished this information to us for inclusion within this report. We did not audit this information. We are not responsible for its accuracy or completeness.

Rate of Return

For the year ended June 30, 2014, the annual money-weighted rate of return for the State Patrol Retirement Fund was 18.66%. The money-weighted rate of return is a method of calculating period-by-period returns on pension plan investments that adjusts for the changing amounts actually invested. For purposes of this schedule, the money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.

10-Year Schedule of Money-Weighted Investment Return

Ten-year data is not available. Additional years will be provided when they become available.

To request additional information about the computation of the annual money-weighted rate of return and the investments for the Minnesota Retirement Systems (including the investments for MSRS' defined benefit retirement funds), contact SBI at 60 Empire Drive, Suite 355, St. Paul, Minnesota, 55103, via email at minn.sbi@state.mn.us or telephone at (651) 296-3328.

SECTION D

ADDITIONAL FINANCIAL STATEMENT DISCLOSURES

ASSET ALLOCATION

Long-Term Expected Return on Plan Assets

The long-term expected rate of return on pension plan investments was determined using a building-block method. Best estimates for expected future real rates of return (expected returns, net of inflation) were developed for each asset class using both long-term historical returns and long-term capital market expectation from a number of investment management and consulting organizations. The asset class estimates and the target allocations were then combined to produce geometric, long-term expected real rate of return for the portfolio. Inflation expectations were applied to derive the nominal rate of return for the portfolio. For each asset class that is included in the pension fund's target asset allocation as of June 30, 2014, these best estimates are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return (Geometric)
Domestic Stocks	45.00%	5.50%
International Stocks	15.00	6.00
Bonds	18.00	1.45
Alternative Assets	20.00	6.40
Unallocated Cash	2.00	0.50
Total	100.00%	

The Minnesota State Board of Investment (SBI) compiled this data and the related investment notes and provided it to MSRS for GASB-compliance purposes. MSRS furnished this information to us for inclusion within this report. We did not audit this information. We are not responsible for its accuracy or completeness.

At MSRS' direction, for purposes of this valuation, the long-term expected rate of return assumption is 7.90%. This assumption is based on a review of inflation and investment return assumptions dated September 11, 2014.

SENSITIVITY OF NET PENSION LIABILITY TO THE SINGLE DISCOUNT RATE ASSUMPTION

Single Discount Rate

A single discount rate of 5.78% was used to measure the total pension liability. This single discount rate was based on an expected rate of return on pension plan investments of 7.90% and a municipal bond rate of 4.29%. The projection of cash flows used to determine this single discount rate assumed that plan member and employer contributions will be made at the current contribution rates. Based on these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to fully finance the benefit payments through the year ending June 30, 2034 and assets were projected to be fully depleted in the year ending June 30, 2036. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the point of asset depletion, and the municipal bond rate was applied to all benefit payments after the point of asset depletion.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the fund's net pension liability, calculated using a single discount rate of 5.78%, as well as what the fund's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower (4.78%) or 1-percentage-point higher (6.78%) than the current single discount rate:

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

(Dollars in Thousands)

1% Decrease 4.78%	Current Single Discount Rate Assumption 5.78%	1% Increase 6.78%
$248,832	$205,955	$169,607

A single discount rate of 5.57% was used for the measurement date as of July 1, 2013. For more information on the calculation of the single discount rate, refer to Section G of this report.

GASB Statement No. 68 Reconciliation *(Dollars in Thousands)*

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)	Deferred Outflows	Deferred Inflows	Pension Expense
Balance Beginning of Year	**$ 373,039**	**$ 155,398**	**$ 217,641**	**$ 0**	**$ 0**	
Changes for the Year:						
Service Cost	$ 12,075		$ 12,075			$ 12,075
Interest on Total Pension Liability	20,535		20,535			20,535
Interest on Plan Fiduciary Net Position [1]		$ 11,965	(11,965)			(11,965)
Changes in Benefit Terms						
Liability Experience Gains and Losses	5,080		5,080	$ 4,064		1,016
Changes in Assumptions	(8,416)		(8,416)		$ 6,733	(1,683)
Contributions - Employer		9,426	(9,426)			
Contributions - Employees		3,578	(3,578)			(3,578)
Asset Gain/(Loss) [1]		16,046	(16,046)		12,837	(3,209)
Benefit Payouts	(20,802)	(20,802)	0			
Administrative Expenses		(55)	55			55
Other Changes						
Net Changes	**$ 8,472**	**$ 20,158**	**$ (11,686)**	**$ 4,064**	**$ 19,570**	**$ 13,246**
Balance End of Year	**$ 381,511**	**$ 175,556**	**$ 205,955**	**$ 4,064**	**$ 19,570**	

(1) The sum of these items equal the net investment income of $28,011.

SUMMARY OF POPULATION STATISTICS

		Terminated		Recipients			
	Actives*	Deferred Retirement	Other Non-Vested	Service Retirement	Disability Retirement	Survivor	Total
Members on 7/1/2013	**309**	**16**	**0**	**210**	**24**	**98**	**657**
New Members	25	0	0	0	0	0	**25**
Return to active	0	0	0	0	0	0	**0**
Terminated non-vested	0	0	0	0	0	0	**0**
Service retirements	(16)	(2)	0	18	0	0	**0**
Terminated deferred	(2)	2	0	0	0	0	**0**
Terminated refund/transfer	0	0	0	0	0	0	**0**
Deaths	0	0	0	(8)	0	(6)	**(14)**
New beneficiary	0	0	0	0	0	3	**3**
Disabled	0	0	0	0	0	0	**0**
Unexpected status change	0	0	0	7	0	(11)	**(4)**
Net change	7	0	0	17	0	(14)	**10**
Members on 6/30/2014	**316**	**16**	**0**	**227**	**24**	**84**	**667**

* *Includes active Judges who have reached the maximum benefit formula (employee contributions are directed to the Unclassified Employees Retirement Plan)*

SECTION E

SUMMARY OF BENEFITS

Summary of Plan Provisions

Following is a summary of the major plan provisions used in the valuation of this report. MSRS is solely responsible for the validity, accuracy and comprehensiveness of this information. If any of the plan provisions shown below are not accurate and complete, the valuation results may differ significantly from those shown in this report and may require a revision of this report.

Plan year	July 1 through June 30.
Eligibility	A judge or justice of any court. If the member was active prior to January 1, 1974, benefits may be computed according to provisions of the prior plan.
Tier 1 / Tier 2 Member	Tier 1 includes judges or justices first appointed or elected before July 1, 2013 and Tier 2 includes judges or justices first appointed or elected after June 30, 2013. A judge or justice with less than five years of service as of December 30, 2013 may make a one-time irrevocable election into Tier 2. For the purpose of this valuation, we have assumed no Tier 1 members elected Tier 2 benefits as of the valuation date.
Contributions	
Member	9.00% of salary for Tier 1 members, 7.00% of salary for Tier 2 members. Tier 1 member contributions after maximum benefit is reached are redirected to the Unclassified Employees Retirement Plan.
Employer	22.50% of salary.
	Member contributions are "picked up" according to the provisions of Internal Revenue Code 414(h).
Allowable service	Service as a judge. Credit may also be earned for uncredited judicial service if the appropriate employee contributions, with interest, are made.
Salary	Salary set by law.
Average salary	Average of the five highest years of salary of the last 10 years prior to termination of judicial service.

Summary of Plan Provisions (Continued)

Retirement	
Normal retirement benefit	
Age/Service requirement	First appointed as a judge before July 1, 2013 (Tier 1): (a.) Age 65 and five years of Allowable Service (b.) Age 70 (mandatory retirement age) First appointed as a judge after June 30, 2013 (Tier 2): (a.) Age 66 and five years of Allowable Service (b.) Age 70 (mandatory retirement age) Judges appointed before July 1, 2013 with less than five years of allowable service on or before December 31, 2013 may make a one-time election for the Tier 2 benefit package.
Amount	First appointed as a judge before July 1, 2013 (Tier 1): 2.70% of Average Salary for each year of Allowable Service prior to July 1, 1980 and 3.20% of Average Salary for each year of Allowable Service after June 30, 1980. Maximum benefit equal to 76.80% of Average Salary. First appointed as a judge after June 30, 2013 (Tier 2): 2.50% of Average Salary for each year of Allowable Service Tier 1 who elected into Tier 2: 3.20% of Average Salary for each year of Allowable Service prior to January 1, 2014 plus 2.50% of Average Salary for each year of Allowable Service after December 31, 2013.
Early retirement	
Age/Service requirement	Age 60 and five years of Allowable Service.
Amount	Normal Retirement Benefit based on Allowable Service and Average Salary at retirement date with reduction of 0.50% for each month the member is under Normal Retirement Age at time of retirement.
Form of payment	Life annuity. Actuarially equivalent options are: (a.) 50%,75% or 100% joint and survivor with no bounce back feature (b.) 50%, 75% or 100% bounce back feature (c.) 15-year certain and life thereafter
Benefit increases	Since January 1, 2014, benefit recipients receive annual 1.75% benefit increases. If the accrued liability funding ratio reaches 70% for two consecutive years (on a Market Value of Assets basis), the benefit increase will revert to 2.0%. If the accrued liability funding ratio reaches 90% for two consecutive years (on a Market Value of Assets basis), the benefit increase will revert to 2.5%. A benefit recipient who has been receiving a benefit for at least 18 full months as of the January 1 increase will receive a full increase. Members receiving benefits for at least six months but less than 18 full months as of the January 1 increase will receive a pro rata increase.

Summary of Plan Provisions (Continued)

Disability	
Disability benefit	
Age/Service requirement	Permanent inability to perform the function of judge.
Amount	No benefit is paid by the Fund. Instead, salary is continued for one year but not beyond age 70. Employee contributions continue and Allowable Service is earned. If disability continues after the first year (or at age 70 if earlier), the larger of 25.00% of Average Salary or the Normal Retirement Benefit, without reduction.
Retirement after disability	
Age/Service requirement	Member is still disabled after salary payments cease after one year or at age 70, if earlier.
Amount	No change in disability benefit amount from pre-retirement computed benefit amount.
Form of payment	Same as for retirement.
Benefit increases	Same as for retirement.
Death	
Survivor's benefit	
Age/service requirement	Active or disabled member dies before retirement or a former member eligible for a deferred annuity dies.
Amount	Larger of 25% of Average Salary or 60% of Normal Retirement Benefit earned at date of death. If member dies after age 60 with five or more years of service, spouse may receive the 100% joint and survivor benefit the member had earned as of date of death. Benefit paid to spouse for life. If no spouse, benefit is paid to surviving dependent children until child marries, dies, or attains age 18 (age 22 if full-time student).
Benefit increases	Same as for retirement.
Refund of contributions	
Age/service requirement	Member dies prior to retirement or former member eligible for a deferred annuity dies and survivors' benefits are not payable.
Amount	Member contributions with 6.00% annual interest compounded daily until June 30, 2011 and 4.00% thereafter.

Summary of Plan Provisions (Concluded)

Termination	
Refund of contributions	
Age/Service requirement	Termination of service as a judge.
Amount	Member contributions with 6.00% annual interest compounded daily until June 30, 2011, 4.00% thereafter. If a member is vested, a deferred annuity may be elected in lieu of a refund.
Deferred benefit	
Age/service requirement	Five years of Allowable Service.
Amount	Benefit computed under law in effect at termination. Amount is payable at normal or early retirement. If a member terminated employment prior to July 1, 1997 but was not eligible to commence their pension before July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.
Form of payment	Same as for retirement.
Optional form conversion factors	Actuarially equivalent factors based on RP-2000 for healthy annuitants, white collar adjustment, projected to 2022 using scale AA, set back one year for males and set back two years for females, blended 80% males, and 6.5% interest.
Combined service annuity	Members are eligible for combined service benefits if they: (a.) Have sufficient allowable service in total that equals or exceeds the applicable service credit vesting requirement of the retirement plan with the longest applicable service credit vesting requirement; (b.) Have at least six months of allowable service credit in each plan worked under; and (c.) Are not in receipt of a benefit from another plan, or have applied for benefits with an effective date within one year. Members who meet the above requirements must have their benefit based on the following: (a.) Allowable service in all covered plans are combined in order to determine eligibility for early retirement; (b.) Average salary is based on the high five consecutive years during their entire service in all covered plans.
Changes in plan provisions	Effective July 1, 2014, the funding ratio threshold that must be attained to pay a 2.0% post-retirement benefit increase to benefit recipients was changed from 70% for one year to 70% for two consecutive years. The funding ratio threshold that must be attained to pay a 2.5% post-retirement benefit increase to benefit recipients was changed from 90% for one year to 90% for two consecutive years. The 10-year certain and life thereafter optional form of payment is no longer available.

SECTION F

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

Actuarial Methods

Actuarial Cost Method

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

(i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement;

(ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains/(losses), as they occur, reduce (increase) the Total Pension Liability.

Valuation of Future Post-Retirement Benefit Increases

Benefit recipients receive a future annual 1.75% post-retirement benefit increase. If the funding ratio reaches 70% (based on a 2.00% post-retirement benefit increase assumption) for two consecutive years, the benefit increase will increase to 2.00%, if the funding ratio reaches 90% (based on a 2.50% post-retirement benefit increase assumption) for two consecutive years, the benefit increase revert to 2.50%.

To determine an assumption regarding a future change in the post-retirement benefit increase, we performed a projection of liabilities and assets based on the following methods and assumptions:

- Future investment returns of 7.90%
- Liabilities and normal cost based on statutory funding assumptions
  - Discount rate of 8.00% through June 30, 2017; 8.50% thereafter
  - Statutory salary increases of 3.00%
- Open group; stable active population (new member profile based on average new members hired in recent years)
- The postretirement benefit increase rate is assumed to be 1.75% per year until the funding ratio threshold required to pay a 2.00% postretirement benefit increase is reached and is assumed to be 2.00% per year until the threshold required to pay a 2.50% postretirement benefit increase is reached.
- Current statutory contributions (i.e. not including potential contribution increases under the contribution stabilizer statutes) as directed by MSRS.

Based on these assumptions and methods, the projection indicates that this plan is expected to pay 1.75% postretirement benefit increases indefinitely. This assumption is reflected in our calculations.

To determine the Total Pension Liability as of July 1, 2013, we performed a similar projection, and assumed the plan would pay the 1.75% benefit increases indefinitely.

Decrement Timing

All decrements are assumed to occur mid-year.

Asset Valuation Method

Fair value of assets.

Summary of Actuarial Assumptions

The following assumptions were used in valuing the liabilities and benefits under the plan. All demographic actuarial assumptions are prescribed by Minnesota Statutes, the Legislative Commission on Pensions and Retirement (LCPR), or the MSRS Board of Directors. These parties are responsible for selecting the assumptions used for this valuation. The demographic assumptions prescribed are based on the last experience study, dated February 2012, prepared by a former actuary. The economic assumptions are based on a review of inflation and investment return assumptions dated September 11, 2014.

Investment return	7.90% per annum.
Benefit increases after retirement	1.75% per annum.
Salary increases	2.75% per year.
Payroll growth	2.75% per year.
Inflation	2.75% per year.
Mortality rates	
Healthy pre-retirement	RP-2000 employee generational mortality table projected using mortality improvement scale AA, white collar adjustment.
Healthy post-retirement	RP-2000 annuitant generational mortality table projected with mortality improvement scale AA, white collar adjustment, set back one year for males and set back two years for females. The RP-2000 employee mortality table as published by the Society of Actuaries (SOA) contains mortality rates for ages 15 to 70 and the annuitant mortality table contains mortality rates for ages 50 to 95. We have applied the annuitant mortality table for active members beyond age 70 until the assumed retirement age and the employee mortality table for annuitants younger than age 50.
Disabled	RP-2000 annuitant generational mortality table projected with mortality improvement scale AA, white collar adjustment, set back one year for males and set back two years for females.
Retirement	Members retiring from active status are assumed to retire according to the age related rates shown in the rate table. Members who have attained the highest assumed retirement age are assumed to retire in one year.
Withdrawal	None.

Actuarial Basis

Summary of Actuarial Assumptions (Continued)

Disability	Age-related rates based on experience; see table of sample rates.
Administrative expenses	For purposes of the Projection of Plan Fiduciary Net Position, total prior year administrative expenses expressed as a percentage of prior year projected payroll are assumed to increase 2.75% per year and are allocated to the closed group based on the ratio of closed group payroll to total payroll.
Refund of contributions	Account balances for deferred members accumulate interest until normal retirement date and are discounted back to the valuation date.
Commencement of deferred benefits	Members receiving deferred annuities (including current terminated deferred members) are assumed to begin receiving benefits at age 65.
Percentage married	Marital status as indicated by data.
Age of spouse	Females are assumed to be three years younger than their male spouses.
Form of payment	Members are assumed to elect a life annuity.
Eligibility testing	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Decrement operation	Withdrawal decrements do not operate during retirement eligibility.
Service credit accruals	It is assumed that members accrue one year of service credit per year.
Unknown data for certain members	To prepare this report, GRS has used and relied on participant data supplied by MSRS. Although GRS has reviewed the data in accordance with Actuarial Standards of Practice No. 23, GRS has not verified or audited any of the data or information provided. In cases where submitted data was missing or incomplete, the following assumptions were applied: <u>Data for active members:</u> There were 15 members who have reached the 24 year service cap; 5 of these were reported as terminated members. These members are reflected as active members in this valuation. We assumed these members earned the greater of the salary reported under the Unclassified Employees Retirement Plan or $134,289 for the July 1, 2013 to June 30, 2014 plan year. There was 1 member reported without pay who was not in the group mentioned above. We assumed an annualized pay of $134,289 for the July 1, 2013 to June 30, 2014 period. There were no members reported with missing service. There were no members reported with missing or invalid birth dates. There was 1 member reported with an invalid gender. We assumed the member was male. <u>Data for terminated members:</u> There was 1 member reported without a benefit. We calculated the benefit for this member using the reported Average Salary, Credited Service and Termination Date provided.

Actuarial Basis

Summary of Actuarial Assumptions (Continued)

Unknown data for certain members	Data for members receiving benefits: There were no members reported without a benefit. There were no members reported with missing or invalid birth dates or gender. There were retired members reported with a survivor option and an invalid or missing survivor gender (56 members) and/or survivor date of birth (43 members). We used the valuation assumptions if the survivor gender or date of birth was missing or invalid. There were 4 retirees reported with a survivor option and a survivor date of death. We assumed no benefit was payable to the survivor, and the member benefit already reflected the increase to the life annuity value (i.e., “bounce back”), if applicable. There was 1 retiree reported with a bounce back annuity but was not reported with a reasonable reduction factor. A factor of 0.80 was assumed for the 100% joint and survivor annuity. There were no survivors reported on the data file with an expired benefit. At MSRS' direction, we changed the status of 22 members who were reported with a disabled status at the beginning of the year and a retired status at the end of the year back to disabled status.
Changes in actuarial assumptions	The single discount rate was changed from 5.57% to 5.78%.

Actuarial Basis

Summary of Actuarial Assumptions (Concluded)

	Rate (%) *					
	Healthy Post-Retirement Mortality**		Healthy Pre-Retirement Mortality**		Disability Mortality**	
Age	Male	Female	Male	Female	Male	Female
20	0.03%	0.02%	0.03%	0.02%	0.03%	0.02%
25	0.04	0.02	0.04	0.02	0.04	0.02
30	0.04	0.02	0.04	0.03	0.04	0.02
35	0.05	0.04	0.06	0.05	0.05	0.04
40	0.08	0.06	0.09	0.06	0.08	0.06
45	0.12	0.08	0.13	0.10	0.12	0.08
50	0.18	0.13	0.20	0.16	0.18	0.13
55	0.56	0.29	0.27	0.24	0.56	0.29
60	0.61	0.47	0.43	0.38	0.61	0.47
65	1.04	0.74	0.67	0.59	1.04	0.74
70	1.74	1.24	0.98	0.88	1.74	1.24

* *Generally, mortality rates are expected to increase as age increases. Due to the combination of pre-retirement rates, post-retirement rates, the white collar adjustment, and Projection Scale AA, the prescribed mortality tables have a few ages where assumed mortality decreases slightly instead of increases. We have used the rates as prescribed, but note that the prescribed assumption may not be reasonable at every age. If the rates were reasonably adjusted so that they decreased at all ages, we would not expect the valuation results to be materially different.*

** *These rates were adjusted for mortality improvements using projection scale AA.*

	Disability Retirement	
Age	Male	Female
20	0.00%	0.00%
25	0.00	0.00
30	0.00	0.00
35	0.01	0.00
40	0.01	0.01
45	0.02	0.03
50	0.07	0.05
55	0.17	0.12
60	0.38	0.31
65	0.00	0.00
70	0.00	0.00

Age	Retirement
60	0%
61	0
62	8
63	5
64	8
65	25
66	20
67	10
68	30
69	10
70	100

SECTION G

CALCULATION OF THE SINGLE DISCOUNT RATE

CALCULATION OF THE SINGLE DISCOUNT RATE

GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Fiduciary Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the long-term rate of return is used as the discount rate. In years where assets are not projected to be sufficient to meet benefit payments, the use of a “risk-free” municipal bond rate is required, as described in the following paragraph.

The *Single Discount Rate* (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve Board (FRB)) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.90%; the municipal bond rate is 4.29% (based on the FRB rate as of June 27, 2013). **The resulting single discount rate as of July 1, 2014 is 5.78%.**

Benefit payments projected to occur up through June 30, 2034 were fully funded and benefit payments projected to occur in the year ended June 30, 2035 were partially funded. Assets were projected to be depleted by the fiscal year ending June 30, 2036. Benefit payments were discounted using 7.9%, the expected long-term rate of return on pension plan investments, as long as assets were sufficient to fund the benefit payments. Beginning in the July 1, 2034 to June 30, 2035 fiscal year, when benefit payments exceed the Plan’s Fiduciary Net Position, benefit payments were discounted at 4.29%, the municipal bond rate. An equivalent single discount rate was determined that produced approximately the same present value of projected benefits when applied to all years of projected benefits as the present value of projected benefits using 7.90% through the point of asset depletion and 4.29% after. For calculation of the equivalent present value of projected benefits, see pages 34 and 35 of this report.

The tables in this section provide background for the development of the single discount rate.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the Single Discount Rate (SDR). It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

CALCULATION OF THE SINGLE DISCOUNT RATE (continued)

We performed a similar analysis as of July 1, 2013. Based on an expected rate of return of 7.90% and a municipal bond rate of 4.63% (based on the FRB rate as of June 27, 2013), the plan is projected to have sufficient assets to pay benefits through June 30, 2028 and to pay partial benefits in the year ending June 30, 2029. **The resulting single discount rate as of July 1, 2013 is 5.57%.**

SINGLE DISCOUNT RATE DEVELOPMENT

Projection of Contributions *(Dollars in Thousands)*

	Projected Covered-Employee Payroll			Projected Contributions			
Year	Payroll for Current Employees	Payroll for New Employees	Total Employee Payroll	Contributions from Current Employees	Employer Contributions for Current Employees	Contributions on Future Payroll toward Current UAL*	Total Contributions
	(a)	(b)	(c) = (a) + (b)	(d)	(e)	(f)	(g) = (d) + (e) + (f)
0	$ 41,893		$ 41,893				
1	43,421		43,421	$ 3,700	$ 9,770		$ 13,470
2	41,805	$ 2,810	44,615	3,542	9,406	$ 332	13,280
3	39,618	6,224	45,842	3,338	8,914	739	12,991
4	37,472	9,631	47,103	3,139	8,431	1,149	12,719
5	35,290	13,108	48,398	2,940	7,940	1,572	12,452
6	33,355	16,374	49,729	2,763	7,505	1,974	12,242
7	31,637	19,460	51,097	2,605	7,118	2,358	12,081
8	29,816	22,686	52,502	2,441	6,709	2,763	11,913
9	27,861	26,085	53,946	2,268	6,269	3,193	11,730
10	25,873	29,556	55,429	2,094	5,822	3,636	11,552
11	23,854	33,100	56,954	1,919	5,367	4,093	11,379
12	22,024	36,496	58,520	1,761	4,955	4,535	11,251
13	20,402	39,727	60,129	1,622	4,590	4,962	11,174
14	18,736	43,047	61,783	1,481	4,216	5,403	11,100
15	16,969	46,513	63,482	1,333	3,818	5,868	11,019
16	15,045	50,183	65,228	1,175	3,385	6,362	10,922
17	13,181	53,840	67,021	1,023	2,966	6,859	10,848
18	11,617	57,247	68,864	896	2,614	7,329	10,839
19	10,175	60,583	70,758	780	2,289	7,794	10,863
20	8,830	63,874	72,704	673	1,987	8,257	10,917
21	7,597	67,106	74,703	575	1,709	8,717	11,001
22	6,362	70,396	76,758	479	1,431	9,188	11,098
23	5,167	73,702	78,869	386	1,163	9,666	11,215
24	4,243	76,794	81,037	315	955	10,120	11,390
25	3,452	79,814	83,266	255	777	10,567	11,599
26	2,742	82,814	85,556	201	617	11,016	11,834
27	2,056	85,853	87,909	150	463	11,474	12,087
28	1,524	88,802	90,326	110	343	11,924	12,377
29	1,160	91,650	92,810	83	261	12,364	12,708
30	804	94,558	95,362	57	181	12,815	13,053
31	516	97,469	97,985	37	116	13,270	13,423
32	283	100,396	100,679	20	64	13,732	13,816
33	165	103,283	103,448	12	37	14,191	14,240
34	109	106,184	106,293	8	25	14,590	14,623
35	36	109,180	109,216	3	8	15,001	15,012
36	0	112,219	112,219	0	0	15,419	15,419
37	0	115,305	115,305	0	0	15,843	15,843
38	0	118,476	118,476	0	0	16,279	16,279
39	0	121,734	121,734	0	0	16,726	16,726
40	0	125,082	125,082	0	0	17,186	17,186
41	0	128,522	128,522	0	0	17,659	17,659
42	0	132,056	132,056	0	0	18,145	18,145
43	0	135,688	135,688	0	0	18,643	18,643
44	0	139,419	139,419	0	0	19,156	19,156
45	0	143,253	143,253	0	0	19,683	19,683
46	0	147,193	147,193	0	0	20,224	20,224
47	0	151,240	151,240	0	0	20,780	20,780
48	0	155,400	155,400	0	0	21,352	21,352
49	0	159,673	159,673	0	0	21,939	21,939
50	0	164,064	164,064	0	0	22,542	22,542

* *Contributions related to future employees in excess of normal cost and expenses. Normal cost and expenses initially total 19.28% of pay but trend down over the projection period (based on the projection assumptions) due to the recognition of lower normal costs for Judges hired after June 30, 2013.*

For purposes of this projection, based on GASB guidance, we assumed the current contribution rates would continue after the plan becomes fully funded. If we reflected a decrease in contribution rates due to full funding, future assets and contributions would be less than what is shown herein.

SINGLE DISCOUNT RATE DEVELOPMENT

Projection of Contributions (continued) *(Dollars in Thousands)*

	Projected Covered-Employee Payroll			Projected Contributions			
Year	Payroll for Current Employees	Payroll for New Employees	Total Employee Payroll	Contributions from Current Employees	Employer Contributions for Current Employees	Contributions on Future Payroll toward Current UAL*	Total Contributions
	(a)	(b)	(c) = (a) + (b)	(d)	(e)	(f)	(g) = (d) + (e) + (f)
51	$ 0	$ 168,576	$ 168,576	$ 0	$ 0	$ 23,162	$ 23,162
52	0	173,212	173,212	0	0	23,799	23,799
53	0	177,975	177,975	0	0	24,454	24,454
54	0	182,869	182,869	0	0	25,126	25,126
55	0	187,898	187,898	0	0	25,817	25,817
56	0	193,065	193,065	0	0	26,527	26,527
57	0	198,375	198,375	0	0	27,257	27,257
58	0	203,830	203,830	0	0	28,006	28,006
59	0	209,435	209,435	0	0	28,776	28,776
60	0	215,195	215,195	0	0	29,568	29,568
61	0	221,113	221,113	0	0	30,381	30,381
62	0	227,193	227,193	0	0	31,216	31,216
63	0	233,441	233,441	0	0	32,075	32,075
64	0	239,861	239,861	0	0	32,957	32,957
65	0	246,457	246,457	0	0	33,863	33,863
66	0	253,234	253,234	0	0	34,794	34,794
67	0	260,198	260,198	0	0	35,751	35,751
68	0	267,354	267,354	0	0	36,734	36,734
69	0	274,706	274,706	0	0	37,745	37,745
70	0	282,260	282,260	0	0	38,783	38,783
71	0	290,023	290,023	0	0	39,849	39,849
72	0	297,998	297,998	0	0	40,945	40,945
73	0	306,193	306,193	0	0	42,071	42,071
74	0	314,613	314,613	0	0	43,228	43,228
75	0	323,265	323,265	0	0	44,417	44,417
76	0	332,155	332,155	0	0	45,638	45,638
77	0	341,289	341,289	0	0	46,893	46,893
78	0	350,675	350,675	0	0	48,183	48,183
79	0	360,318	360,318	0	0	49,508	49,508
80	0	370,227	370,227	0	0	50,869	50,869
81	0	380,408	380,408	0	0	52,268	52,268
82	0	390,870	390,870	0	0	53,705	53,705
83	0	401,619	401,619	0	0	55,182	55,182
84	0	412,663	412,663	0	0	56,700	56,700
85	0	424,011	424,011	0	0	58,259	58,259
86	0	435,672	435,672	0	0	59,861	59,861
87	0	447,653	447,653	0	0	61,507	61,507
88	0	459,963	459,963	0	0	63,199	63,199
89	0	472,612	472,612	0	0	64,937	64,937
90	0	485,609	485,609	0	0	66,723	66,723
91	0	498,963	498,963	0	0	68,558	68,558
92	0	512,685	512,685	0	0	70,443	70,443
93	0	526,783	526,783	0	0	72,380	72,380
94	0	541,270	541,270	0	0	74,370	74,370
95	0	556,155	556,155	0	0	76,416	76,416
96	0	571,449	571,449	0	0	78,517	78,517
97	0	587,164	587,164	0	0	80,676	80,676
98	0	603,311	603,311	0	0	82,895	82,895
99	0	619,902	619,902	0	0	85,175	85,175
100	0	636,949	636,949	0	0	87,517	87,517

** Contributions related to future employees in excess of normal cost and expenses. Normal cost and expenses initially total 19.28% of pay but trend down over the projection period (based on the projection assumptions) due to the recognition of lower normal costs for Judges hired after June 30, 2013.*

For purposes of this projection, based on GASB guidance, we assumed the current contribution rates would continue after the plan becomes fully funded. If we reflected a decrease in contribution rates due to full funding, future assets and contributions would be less than what is shown herein.

SINGLE DISCOUNT RATE DEVELOPMENT

Projection of Plan Fiduciary Net Position *(Dollars in Thousands)*

Year	Projected Beginning Plan Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 7.90%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
1	$ 175,556	$ 13,470	$ 21,391	$ 61	$ 13,560	$ 181,134
2	181,134	13,280	22,380	59	13,955	185,930
3	185,930	12,991	23,620	55	14,274	189,520
4	189,520	12,719	24,755	52	14,504	191,936
5	191,936	12,452	25,987	49	14,636	192,988
6	192,988	12,242	27,141	47	14,667	192,709
7	192,709	12,081	28,008	44	14,605	191,343
8	191,343	11,913	28,896	42	14,456	188,774
9	188,774	11,730	29,851	39	14,209	184,823
10	184,823	11,552	30,855	36	13,851	179,335
11	179,335	11,379	31,862	33	13,372	172,191
12	172,191	11,251	32,693	31	12,771	163,489
13	163,489	11,174	33,423	29	12,052	153,263
14	153,263	11,100	34,182	26	11,212	141,367
15	141,367	11,019	34,878	24	10,242	127,726
16	127,726	10,922	35,604	21	9,133	112,156
17	112,156	10,848	36,226	18	7,876	94,636
18	94,636	10,839	36,681	16	6,474	75,252
19	75,252	10,863	36,976	14	4,932	54,057
20	54,057	10,917	37,109	12	3,255	31,108
21	31,108	11,001	37,051	11	1,447	6,494
22	6,494	11,098	36,913	9	0	0
23	0	11,215	36,624	7	0	0
24	0	11,390	36,077	6	0	0
25	0	11,599	35,355	5	0	0
26	0	11,834	34,536	4	0	0
27	0	12,087	33,615	3	0	0
28	0	12,377	32,458	2	0	0
29	0	12,708	31,167	2	0	0
30	0	13,053	29,847	1	0	0
31	0	13,423	28,468	1	0	0
32	0	13,816	27,053	0	0	0
33	0	14,240	25,582	0	0	0
34	0	14,623	24,095	0	0	0
35	0	15,012	22,644	0	0	0
36	0	15,419	21,202	0	0	0
37	0	15,843	19,775	0	0	0
38	0	16,279	18,382	0	0	0
39	0	16,726	17,026	0	0	0
40	0	17,186	15,710	0	0	0
41	0	17,659	14,436	0	0	0
42	0	18,145	13,205	0	0	0
43	0	18,643	12,020	0	0	0
44	0	19,156	10,884	0	0	0
45	0	19,683	9,799	0	0	0
46	0	20,224	8,768	0	0	0
47	0	20,780	7,794	0	0	0
48	0	21,352	6,880	0	0	0
49	0	21,939	6,027	0	0	0
50	0	22,542	5,238	0	0	0

For purposes of this projection, based on GASB guidance, we assumed the current contribution rates would continue after the plan becomes fully funded. If we reflected a decrease in contribution rates due to full funding, future assets and contributions would be less than what is shown herein.

SINGLE DISCOUNT RATE DEVELOPMENT

Projection of Plan Fiduciary Net Position (continued) *(Dollars in Thousands)*

Year	Projected Beginning Plan Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 7.90%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
51	$ 0	$ 23,162	$ 4,513	$ 0	$ 0	$ 0
52	0	23,799	3,854	0	0	0
53	0	24,454	3,258	0	0	0
54	0	25,126	2,728	0	0	0
55	0	25,817	2,262	0	0	0
56	0	26,527	1,857	0	0	0
57	0	27,257	1,508	0	0	0
58	0	28,006	1,211	0	0	0
59	0	28,776	963	0	0	0
60	0	29,568	758	0	0	0
61	0	30,381	590	0	0	0
62	0	31,216	454	0	0	0
63	0	32,075	347	0	0	0
64	0	32,957	262	0	0	0
65	0	33,863	195	0	0	0
66	0	34,794	144	0	0	0
67	0	35,751	106	0	0	0
68	0	36,734	77	0	0	0
69	0	37,745	55	0	0	0
70	0	38,783	39	0	0	0
71	0	39,849	27	0	0	0
72	0	40,945	19	0	0	0
73	0	42,071	13	0	0	0
74	0	43,228	8	0	0	0
75	0	44,417	6	0	0	0
76	0	45,638	4	0	0	0
77	0	46,893	2	0	0	0
78	0	48,183	1	0	0	0
79	0	49,508	1	0	0	0
80	0	50,869	1	0	0	0
81	0	52,268	0	0	0	0
82	0	53,705	0	0	0	0
83	0	55,182	0	0	0	0
84	0	56,700	0	0	0	0
85	0	58,259	0	0	0	0
86	0	59,861	0	0	0	0
87	0	61,507	0	0	0	0
88	0	63,199	0	0	0	0
89	0	64,937	0	0	0	0
90	0	66,723	0	0	0	0
91	0	68,558	0	0	0	0
92	0	70,443	0	0	0	0
93	0	72,380	0	0	0	0
94	0	74,370	0	0	0	0
95	0	76,416	0	0	0	0
96	0	78,517	0	0	0	0
97	0	80,676	0	0	0	0
98	0	82,895	0	0	0	0
99	0	85,175	0	0	0	0
100	0	87,517	0	0	0	0

For purposes of this projection, based on GASB guidance, we assumed the current contribution rates would continue after the plan becomes fully funded. If we reflected a decrease in contribution rates due to full funding, future assets and contributions would be less than what is shown herein.

SINGLE DISCOUNT RATE DEVELOPMENT

Present Values of Projected Benefits *(Dollars in Thousands)*

Year	Projected Beginning Plan Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=((c)/(1+sdr)^(a-.5)
1	$ 175,556	$ 21,391	$ 21,391	$ 0	$ 20,593	$ 0	$ 20,799
2	181,134	22,380	22,380	0	19,967	0	20,571
3	185,930	23,620	23,620	0	19,531	0	20,525
4	189,520	24,755	24,755	0	18,971	0	20,337
5	191,936	25,987	25,987	0	18,457	0	20,182
6	192,988	27,141	27,141	0	17,865	0	19,927
7	192,709	28,008	28,008	0	17,086	0	19,440
8	191,343	28,896	28,896	0	16,337	0	18,961
9	188,774	29,851	29,851	0	15,641	0	18,518
10	184,823	30,855	30,855	0	14,984	0	18,095
11	179,335	31,862	31,862	0	14,340	0	17,664
12	172,191	32,693	32,693	0	13,637	0	17,135
13	163,489	33,423	33,423	0	12,920	0	16,561
14	153,263	34,182	34,182	0	12,246	0	16,011
15	141,367	34,878	34,878	0	11,581	0	15,445
16	127,726	35,604	35,604	0	10,956	0	14,905
17	112,156	36,226	36,226	0	10,332	0	14,337
18	94,636	36,681	36,681	0	9,695	0	13,724
19	75,252	36,976	36,976	0	9,058	0	13,079
20	54,057	37,109	37,109	0	8,425	0	12,409
21	31,108	37,051	31,108	5,943	6,544	2,514	11,713
22	6,494	36,913	6,494	30,419	1,266	12,330	11,031
23	0	36,624	0	36,624	0	14,233	10,347
24	0	36,077	0	36,077	0	13,444	9,636
25	0	35,355	0	35,355	0	12,633	8,927
26	0	34,536	0	34,536	0	11,833	8,244
27	0	33,615	0	33,615	0	11,044	7,586
28	0	32,458	0	32,458	0	10,225	6,925
29	0	31,167	0	31,167	0	9,414	6,286
30	0	29,847	0	29,847	0	8,645	5,691
31	0	28,468	0	28,468	0	7,906	5,131
32	0	27,053	0	27,053	0	7,204	4,610
33	0	25,582	0	25,582	0	6,532	4,121
34	0	24,095	0	24,095	0	5,899	3,670
35	0	22,644	0	22,644	0	5,316	3,260
36	0	21,202	0	21,202	0	4,773	2,886
37	0	19,775	0	19,775	0	4,268	2,545
38	0	18,382	0	18,382	0	3,804	2,236
39	0	17,026	0	17,026	0	3,379	1,958
40	0	15,710	0	15,710	0	2,990	1,708
41	0	14,436	0	14,436	0	2,634	1,484
42	0	13,205	0	13,205	0	2,310	1,283
43	0	12,020	0	12,020	0	2,016	1,104
44	0	10,884	0	10,884	0	1,751	945
45	0	9,799	0	9,799	0	1,511	804
46	0	8,768	0	8,768	0	1,297	680
47	0	7,794	0	7,794	0	1,105	572
48	0	6,880	0	6,880	0	935	477
49	0	6,027	0	6,027	0	786	395
50	0	5,238	0	5,238	0	655	325

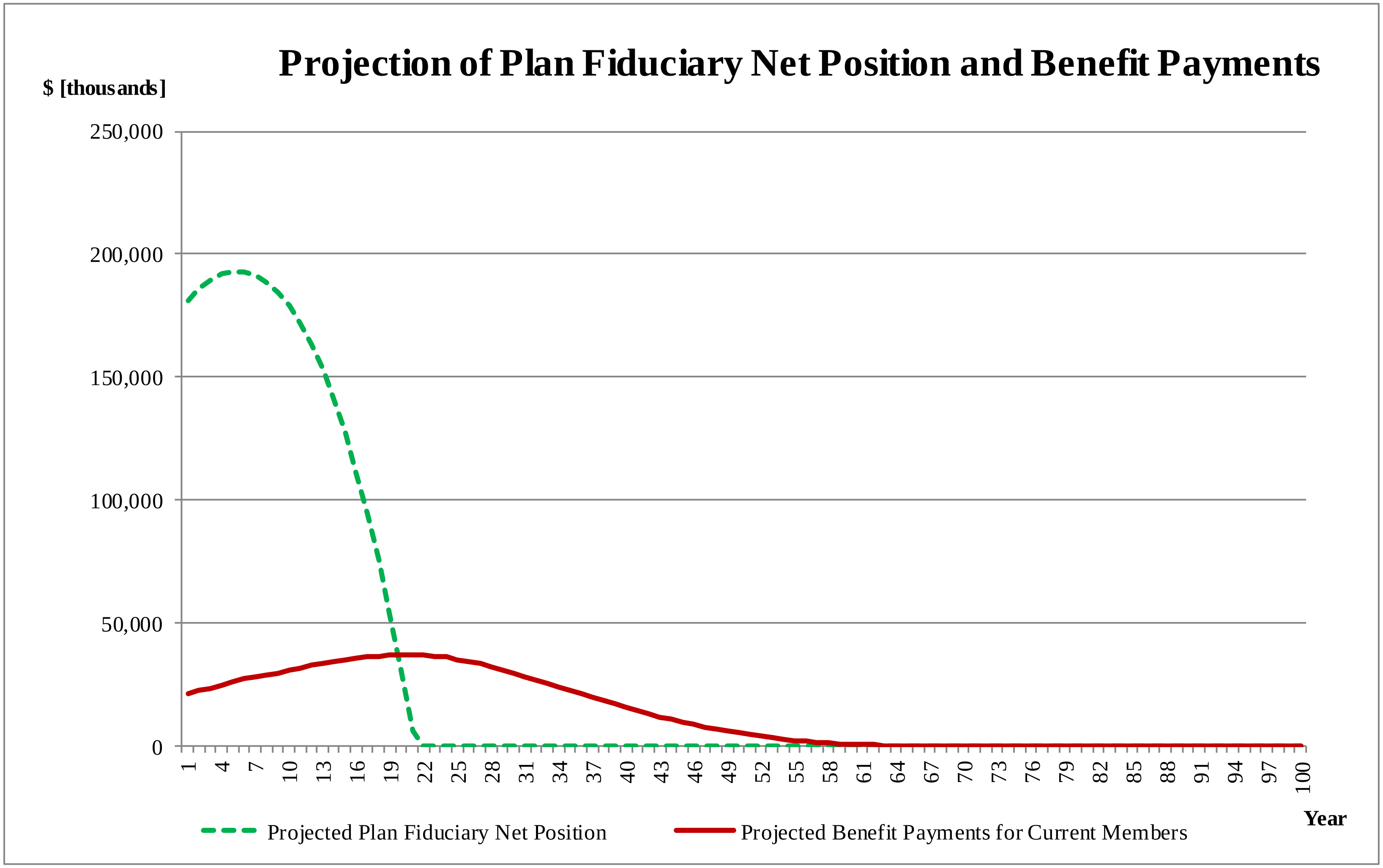
For purposes of this projection, based on GASB guidance, we assumed the current contribution rates would continue after the plan becomes fully funded. If we reflected a decrease in contribution rates due to full funding, future assets and contributions would be less than what is shown herein.

SINGLE DISCOUNT RATE DEVELOPMENT

Present Values of Projected Benefits (continued) *(Dollars in Thousands)*

Year	Projected Beginning Plan Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=((c)/(1+sdr)^(a-.5)
51	$ -	$ 4,513	$ -	$ 4,513	$ 20,593	$ 541	$ 265
52	0	3,854	0	3,854	19,967	443	214
53	0	3,258	0	3,258	19,531	359	171
54	0	2,728	0	2,728	18,971	288	135
55	0	2,262	0	2,262	18,457	229	106
56	0	1,857	0	1,857	17,865	180	82
57	0	1,508	0	1,508	17,086	140	63
58	0	1,211	0	1,211	16,337	108	48
59	0	963	0	963	15,641	83	36
60	0	758	0	758	14,984	62	27
61	0	590	0	590	14,340	46	20
62	0	454	0	454	13,637	34	14
63	0	347	0	347	12,920	25	10
64	0	262	0	262	12,246	18	7
65	0	195	0	195	11,581	13	5
66	0	144	0	144	10,956	9	4
67	0	106	0	106	10,332	6	3
68	0	77	0	77	9,695	5	2
69	0	55	0	55	9,058	3	1
70	0	39	0	39	8,425	2	1
71	0	27	0	27	6,544	1	1
72	0	19	0	19	1,266	1	0
73	0	13	0	13	0	1	0
74	0	8	0	8	0	0	0
75	0	6	0	6	0	0	0
76	0	4	0	4	0	0	0
77	0	2	0	2	0	0	0
78	0	1	0	1	0	0	0
79	0	1	0	1	0	0	0
80	0	1	0	1	0	0	0
81	0	0	0	0	0	0	0
82	0	0	0	0	0	0	0
83	0	0	0	0	0	0	0
84	0	0	0	0	0	0	0
85	0	0	0	0	0	0	0
86	0	0	0	0	0	0	0
87	0	0	0	0	0	0	0
88	0	0	0	0	0	0	0
89	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0
96	0	0	0	0	0	0	0
97	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0
				Totals	$ 300,433	$ 175,987	$ 476,420

For purposes of this projection, based on GASB guidance, we assumed the current contribution rates would continue after the plan becomes fully funded. If we reflected a decrease in contribution rates due to full funding, future assets and contributions would be less than what is shown herein.



Note: Assets are expected to be fully depleted in year 22 (year ending June 30, 2036).

SECTION H

GLOSSARY OF TERMS

GLOSSARY OF TERMS

Actuarial Accrued Liability (AAL)	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."
Actuarial Assumptions	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.
Accrued Service	Service credited under the system which was rendered before the date of the actuarial valuation.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.
Actuarial Gain (Loss)	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
Actuarial Present Value (APV)	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future benefit payments at predetermined rates of interest to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Actuarial Valuation	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.
Actuarial Valuation Date	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution (ADC)	A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.

GLOSSARY OF TERMS

Amortization Payment	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
Amortization Method	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be "open" (meaning, reset each year) or "closed" (the number of years remaining will decline each year.
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered-Employee Payroll	The payroll of covered employees, which is typically only the pensionable pay and does not include pay above any pay cap.
Deferred Inflows and Outflows of Resources	The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.
Discount Rate or Single Discount Rate	For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically: 1. The benefit payments to be made while the pension plans' fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period and; 2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.
Entry Age Actuarial Cost Method or Entry Age Normal (EAN)	The EAN is a funding method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit ages(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.

GLOSSARY OF TERMS

Fiduciary Net Position	The fiduciary net position is the value of the net assets of the trust restricted for pension benefits.
GASB	The Governmental Accounting Standards Board is an organization that exists with authority to promulgate accounting standards for state and local governmental entities.
Long-Term Expected Rate of Return	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.
Money-Weighted Rate of Return	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.
Multiple-Employer Defined Benefit Pension Plan	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Municipal Bond Rate	The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.
Net Pension Liability (NPL)	The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.
Non-Employer Contributing Entities	Non-employer contributing entities are entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB Accounting Statements No. 67 and No. 68 plan members are not considered non-employer contribution entities.
Normal Cost	The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.
Other Postemployment Benefits (OPEB)	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other post-employment benefits do not include termination benefits.
Real Rate of Return	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
Service Cost	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.

GLOSSARY OF TERMS

Total Pension Expense The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year:

1. Service Cost
2. Interest on the Total Pension Liability
3. Current-Period Changes in Benefit Terms
4. Employee Contributions
5. Projected Earnings on Plan Investments
6. Pension Plan Administrative Expense
7. Other Changes in Plan Fiduciary Net Position
8. Recognition of Outflow (Inflow) of Resources due to the difference between expected and actual in measurement of the Total Pension Liability
9. Recognition of Outflow (Inflow) of Resources due to Assumption Changes
10. Recognition of Outflow (Inflow) of Resources due to the difference between projected and actual earnings on pension plan investments

Total Pension Liability (TPL) The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.

Unfunded Actuarial Accrued Liability (UAAL) The UAAL is the difference between actuarial accrued liability and valuation assets.

Valuation Assets The valuation assets are the plan fiduciary net position used in determining the net position liability of the plan. For purposes of the GASB Statement No. 67, the asset valuation method is equal to the market value of assets.