

ALSIP ELEMENTARY SD 126 REGULAR GASB STATEMENT NO. 68 EMPLOYER REPORTING ACCOUNTING SCHEDULES

DECEMBER 31, 2014

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One Towne Square Suite 800 Southfield, MI 48076-3723

248.799.9000 phone 248.799.9020 fax www.gabrielroeder.com

April 27, 2015

Alsip Elementary SD 126 Illinois Municipal Retirement System

The accounting schedules submitted in this report are required under the Governmental Accounting Standards Board (GASB) Statement No. 68 "Accounting and Financial Reporting for Pensions."

Our calculations for this report were prepared for the purpose of complying with the requirements of GASB Statement No. 68. These calculations have been made on a basis that is consistent with our understanding of these accounting standards. These results are subject to review by the system's auditor and may be revised.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB Statement No. 68. Our 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. 68 may produce significantly different results. This report may be provided to parties other than the Alsip Elementary SD 126 only in its entirety and only with the permission of Alsip Elementary SD 126.

This report is based upon information, furnished to us by IMRF, concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different than ours, please let us know and do not use or distribute this report until those differences have been resolved to your satisfaction. This information was checked for internal consistency, but it was not otherwise audited.

To the best of our knowledge, the information contained in this report is accurate, and fairly represents the actuarial position of Alsip Elementary SD 126. 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. Mark Buis and Francois Pieterse are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the Academy of Actuaries to render the actuarial opinions herein. The signing actuaries are independent of the plan sponsor.

Respectfully submitted,

Mark Buis FSA, EA, MAAA

Bv

Francois Pieterse ASA, MAAA

SECTION A EXECUTIVE SUMMARY

EXECUTIVE SUMMARY AS OF DECEMBER 31, 2014

		2014	
Actuarial Valuation Date	Dece	ember 31, 2014	
Measurement Date of the Net Pension Liability	Dece	ember 31, 2014	
Fiscal Year End	N	ot available	
Membership			
Number of			
- Retirees and Beneficiaries		225	
- Inactive, Non-Retired Members		175	
- Active Members		86	
- Total		486	
Covered Valuation Payroll	\$	2,066,746	
Net Pension Liability			
Total Pension Liability/(Asset)	\$	15,282,920	
Plan Fiduciary Net Position		14,670,440	
Net Pension Liability/(Asset)	\$	612,480	
Plan Fiduciary Net Position as a Percentage			
of Total Pension Liability		95.99%	
Net Pension Liability as a Percentage			
of Covered Valuation Payroll		29.63%	
Development of the Single Discount Rate as of December 31, 2014			
Long-Term Expected Rate of Investment Return		7.50%	
Long-Term Municipal Bond Rate*		3.56%	
Last year ending December 31 in the 2015 to 2114 projection period			
for which projected benefit payments are fully funded		2088	
Resulting Single Discount Rate based on the above development		7.49%	
Single Discount Rate calculated using December 31, 2013 Measurement Date		7.50%	
Total Pension Expense/(Income)	\$	434,083	

 		ed Inflows sources
\$ 0	\$	3,718
246,658		-
 160,381		-
\$ 407,039	\$	3,718
of F	246,658	of Resources of Resources \$ 0 \$ 246,658 160,381

*Based on the Bond Buyer 20-Bond Index of general obligation municipal bonds as of December 31, 2014 (i.e., the weekly rate closest to but not later than the Measurement Date).

DISCUSSION

Accounting Standard

For state and local government employers (as well as certain non-employers) that contribute to a Defined Benefit (DB) pension plan administered through a trust or equivalent arrangement, Governmental Accounting Standards Board (GASB) Statement No. 68 establishes standards for pension accounting and financial reporting. Under GASB Statement No. 68, the employer must 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 is not included in this report if it is not actuarial in nature, such as the notes to the financial statements regarding accounting policies and investments. As a result, the retirement system and/or plan sponsor is responsible for preparing and disclosing the non-actuarial information needed to comply with these accounting standards.

Financial Statements

GASB Statement No. 68 requires state and local government employers that contribute to DB pension plans to recognize the net pension liability and the pension expense on their financial statements, along with the related deferred outflows of resources and deferred inflows of resources. 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 certain changes in the liability and investment experience.

Notes to Financial Statements

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

In addition, GASB Statement No. 68 requires the notes of the financial statements for the employers to include certain additional information, including (page numbers refer to page numbers from this report unless specified otherwise):

- a description of the types of benefits provided by the plan, as well as automatic or ad hoc COLAs (please see pages B-1 B-5 of the December 31, 2014 Annual Actuarial Valuation report dated April 8, 2015);
- the number and classes of employees covered by the benefit terms (page 1);
- for the current year, sources of changes in the net pension liability (page 8);
- significant assumptions and methods used to calculate the total pension liability (page 13);
- inputs to the single discount rate (page 14);
- certain information about mortality assumptions and the dates of experience studies (page 11 and page 13);
- the date of the valuation used to determine the total pension liability (page 1);
- information about changes of assumptions or other inputs and benefit terms (pages 11 and 13);
- the basis for determining contributions to the plan, including a description of the plan's funding policy, as well as member and employer contribution requirements (please see page A-3, B-5 and Section D of the December 31, 2014 Annual Actuarial Valuation report dated April 8, 2015, as well as page 11);
- the total pension liability, fiduciary net position, net pension liability, and the pension plan's fiduciary net position as a percentage of the total pension liability (page 8);
- the net pension liability using a discount rate that is 1% higher and 1% lower than used to calculate the total pension liability and net pension liability for financial reporting purposes (page 8); and
- a description of the system that administers the pension plan (to be provided by IMRF).

Required Supplementary Information

The financial statements of employers also include required supplementary information showing the 10-year fiscal history of:

- sources of changes in the net pension liability (page 9);
- 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 (page 9); and
- comparison of actual employer contributions to the actuarially determined contributions based on the plan's funding policy (page 10).

These tables may be built prospectively as the information becomes available.

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. For the employer's financial reporting purposes, the net pension liability and pension expense should be measured as of the employer's "measurement date" which may not be earlier than the employer's prior fiscal year-end date. 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 December 31, 2014 and a measurement date of December 31, 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 as of the measurement date (to the extent that the plan's projected fiduciary net position is not sufficient to pay benefits).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.50%; the municipal bond rate is 3.56% (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); and the resulting single discount rate is 7.49%.

Effective Date and Transition

GASB Statement No. 68 is effective for an employer's fiscal years beginning after June 15, 2014; however, earlier application is encouraged by the GASB.

SECTION B FINANCIAL STATEMENTS

PENSION EXPENSE/(INCOME) UNDER GASB STATEMENT NO. 68 CALENDAR YEAR ENDED DECEMBER 31, 2014

A. Expense/(Income)

1. Service Cost	\$ 245,612
2. Interest on the Total Pension Liability	1,048,075
3. Current-Period Benefit Changes	0
4. Employee Contributions (made negative for addition here)	(91,631)
5. Projected Earnings on Plan Investments (made negative for addition here)	(1,054,208)
6. Other Changes in Plan Fiduciary Net Position	(121,005)
7. Recognition of Outflow (Inflow) of Resources due to Liabilities	367,145
8. Recognition of Outflow (Inflow) of Resources due to Assets	 40,095
9. Total Pension Expense/(Income)	\$ 434,083

STATEMENT OF OUTFLOWS AND INFLOWS ARISING FROM CURRENT REPORTING PERIOD CALENDAR YEAR ENDED DECEMBER 31, 2014

A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience	
of the Total Pension Liability (gains) or losses	\$ (9,337)
2. Assumption Changes (gains) or losses	\$ 619,422
3. Recognition period for Liabilities: Average of the	
expected remaining service lives of all employees {in years}	1.6617
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	\$ (5,619)
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for	
Assumption Changes	\$ 372,764
6. Outflow (Inflow) of Resources to be recognized in the current pension expense	
due to Liabilities	\$ 367,145
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	\$ (3,718)
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for	
Assumption Changes	\$ 246,658
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses	
due to Liabilities	\$ 242,940
B. Outflows (Inflows) of Resources due to Assets	
1. Net difference between projected and actual earnings on	
pension plan investments (gains) or losses	\$ 200,476
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	\$ 40,095
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses	
due to Assets	\$ 160,381

STATEMENT OF OUTFLOWS AND INFLOWS ARISING FROM CURRENT AND PRIOR REPORTING PERIODS CALENDAR YEAR ENDED DECEMBER 31, 2014

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

	C	outflows	I	nflows	Net	t Outflows
	of F	Resources	of R	esources	of H	Resources
1. Due to Liabilities	\$	372,764	\$	5,619	\$	367,145
2. Due to Assets		40,095		0		40,095
3. Total	\$	412,859	\$	5,619	\$	407,240

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

	Outflows	Inf	lows	Ne	t Outflows
	of Resources	of Re	sources	ofl	Resources
1. Differences between expected and actual experience \$	6 0	\$	5,619	\$	(5,619)
2. Assumption changes	372,764		0		372,764
3. Net difference between projected and actual					
earnings on pension plan investments	40,095		0		40,095
4. Total \$	412,859	\$	5,619	\$	407,240

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

	Deferred Outflows of Resources	Deferred of Reso		rred Outflows esources
1. Differences between expected and actual experience	\$ 0	\$	3,718	\$ (3,718)
2. Assumption changes	246,658		0	246,658
3. Net difference between projected and actual				
earnings on pension plan investments	160,381		0	160,381
4. Total	\$ 407,039	\$	3,718	\$ 403,321

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

Year Ending December 31	 erred Outflows Resources
2015	\$ 283,035
2016	40,095
2017	40,095
2018	40,096
2019	0
Thereafter	0
Total	\$ 403,321

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

CALENDAR YEAR ENDED DECEMBER 31, 2014

A. Total pension liability

1. Service Cost	\$	245,612
2. Interest on the Total Pension Liability	ψ	1,048,075
3. Changes of benefit terms		0
-		0
4. Difference between expected and actual experience of the Total Pension Liability		(9,337)
5. Changes of assumptions		619,422
		019,422
6. Benefit payments, including refunds		(944,746)
of employee contributions		
7. Net change in total pension liability	\$	959,026
8. Total pension liability – beginning		14,323,894
9. Total pension liability – ending	\$	15,282,920
B. Plan fiduciary net position		
1. Contributions – employer	\$	253,324
2. Contributions – employee		91,631
3. Net investment income		853,732
4. Benefit payments, including refunds		
of employee contributions		(944,746)
5. Other (Net Transfer)		121,005
6. Net change in plan fiduciary net position	\$	374,946
7. Plan fiduciary net position – beginning		14,295,494
8. Plan fiduciary net position – ending	\$	14,670,440
C. Net pension liability/(asset)	\$	612,480
D. Plan fiduciary net position as a percentage		
of the total pension liability		95.99%
E. Covered Valuation payroll	\$	2,066,746
F. Net pension liability as a percentage		
of covered valuation payroll		29.63%

SENSITIVITY OF NET PENSION LIABILITY/(ASSET) TO THE SINGLE DISCOUNT RATE ASSUMPTION

			Curren	t Single Discount	
	10	% Decrease	Rate	e Assumption	1% Increase
		6.49%		7.49%	 8.49%
Total Pension Liability	\$	17,007,824	\$	15,282,920	\$ 13,853,433
Plan Fiduciary Net Position		14,670,440		14,670,440	 14,670,440
Net Pension Liability/(Asset)	\$	2,337,384	\$	612,480	\$ (817,007)

Schedules of Required Supplementary Information Multiyear Schedule of Changes in Net Pension Liability and Related Ratios

Last 10 Calendar Years

(schedule to be built prospectively from 2014)

Calendar year ending December 31,	 2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Total Pension Liability										
Service Cost	\$ 245,612									
Interest on the Total Pension Liability	1,048,075									
Benefit Changes	0									
Difference between Expected and Actual Experience	(9,337)									
Assumption Changes	619,422									
Benefit Payments and Refunds	 (944,746)									
Net Change in Total Pension Liability	 959,026									
Total Pension Liability - Beginning	14,323,894									
Total Pension Liability - Ending (a)	\$ 15,282,920									
Plan Fiduciary Net Position										
Employer Contributions	\$ 253,324									
Employee Contributions	91,631									
Pension Plan Net Investment Income	853,732									
Benefit Payments and Refunds	(944,746)									
Other	 121,005									
Net Change in Plan Fiduciary Net Position	374,946									
Plan Fiduciary Net Position - Beginning	 14,295,494									
Plan Fiduciary Net Position - Ending (b)	\$ 14,670,440									
Net Pension Liability/(Asset) - Ending (a) - (b)	 612,480									
Plan Fiduciary Net Position as a Percentage										
of Total Pension Liability	95.99%									
Covered Valuation Payroll	\$ 2,066,746									
Net Pension Liability as a Percentage										
of Covered Valuation Payroll	29.63%									

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MULTIYEAR SCHEDULE OF CONTRIBUTIONS

Last 10 Calendar Years

Calendar Year	Act	tuarially			Con	tribution	Covered	Actual Contribution
Ending	Determined			Actual	De	ficiency	Valuation	as a % of
December 31,	Con	tribution		Contribution	 (1	Excess)	 Payroll	Covered Valuation Payroll
2014	\$	281,284	*	\$ 253,324	\$	27,960	\$ 2,066,746	12.26%

* Estimated based on contribution rate of 13.61% and covered valuation payroll of \$2,066,746. This number should be verified by the auditor.

NOTES TO SCHEDULE OF CONTRIBUTIONS

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS USED IN THE CALCULATION OF THE 2014 CONTRIBUTION RATE*

Valuation Date:	
Notes	Actuarially determined contribution rates are calculated as of December 31 each year, which are 12 months prior to the beginning of the fiscal year in which contributions are reported.
Methods and Assumptions Used	to Determine 2014 Contribution Rates:
Actuarial Cost Method	Aggregate Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	Non-Taxing bodies: 10-year rolling period. Taxing bodies (Regular, SLEP and ECO groups): 29-year closed period until remaining period reaches 15 years (then 15-year rolling period). Early Retirement Incentive Plan liabilities: a period up to 10 years selected by the Employer upon adoption of ERI. SLEP supplemental liabilities attributable to Public Act 94-712 were financed over 24 years for most employers (two employers were financed over 33 years).
Asset Valuation Method	5-Year smoothed market; 20% corridor
Wage growth	4.00%
Price Inflation	3.0% approximate; No explicit price inflation assumption is used in this valuation.
Salary Increases	4.40% to 16.00% including inflation
Investment Rate of Return	7.50%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2011 valuation pursuant to an experience study of the period 2008 - 2010.
Mortality	RP-2000 Combined Healthy Mortality Table, adjusted for mortality improvements to 2020 using projection scale AA. For men 120% of the table rates were used. For women 92% of the table rates were used. For disabled lives, the mortality rates are the rates applicable to non-disabled lives set forward 10 years.
Other Information:	
Notes	There were no benefit changes during the year.

* Based on Valuation Assumptions used in the December 31, 2012 actuarial valuation

DEVELOPMENT OF MARKET VALUE OF ASSETS

Market Value of Assets as of December 31, 2014

1. Employee Contribution Reserve (MDF Assets from IMRF)	\$ 1,599,539
2. Employer Contribution Reserve (EAF assets from IMRF)	3,489,552
3. Annuitant Reserve	10,094,493
4. Assumed Transfer from Employer Reserve for Annuitant Mortality Change	(403,900)
5. Miscellaneous Adjustment*	 (109,244)
6. Net Market Value	\$ 14,670,440

* Includes an adjustment factor of .00739151 on Items 1 through 4 to ensure that Market Value of Assets for all employers balances to the total Market Value of IMRF. Miscellaneous adjustments are due to various items such as suspended annuity reserve, disability benefit reserve, death benefit reserve, supplemental benefit reserve, employers with no assets, etc.

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS USED IN THE CALCULATION OF THE TOTAL PENSION LIABILITY

Methods and Assumptions Used to Determine Total Pension Liability:

Actuarial Cost Method	Entry Age Normal
Asset Valuation Method	Market Value of Assets
Inflation	3.5%
Price Inflation	2.75%
Salary Increases	3.75% to 14.50% including inflation
Investment Rate of Return	7.49%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2014 valuation pursuant to an experience study of the period 2011-2013.
Mortality	For non-disabled retirees, an IMRF specific mortality table was used with fully generational projection scale MP-2014 (base year 2014). The IMRF specific rates were developed from the RP-2014 Blue Collar Health Annuitant Mortality Table with adjustments to match current IMRF experience. For disabled retirees, an IMRF specific mortality table was used with fully generational projection scale MP-2014 (base year 2014). The IMRF specific rates were developed from the RP-2014 (base year 2014). The IMRF specific rates were developed from the RP-2014 Disabled Retirees Mortality Table applying the same adjustment that were applied for non-disabled lives. For active members, an IMRF specific mortality table was used with fully generational projection scale MP-2014 (base year 2014). The IMRF specific rates were developed from that were applied for non-disabled lives. For active members, an IMRF specific mortality table was used with fully generational projection scale MP-2014 (base year 2014). The IMRF specific rates were developed from that were applied for non-disabled lives. For active members, an IMRF specific mortality table was used with fully generational projection scale MP-2014 (base year 2014). The IMRF specific rates were developed from the RP-2014 (base year 2014). The IMRF specific rates were developed from the RP-2014 (base year 2014). The IMRF specific rates were developed from the RP-2014 (base year 2014). The IMRF specific rates were developed from the RP-2014 Employee Mortality Table with adjustments to match current IMRF experience.
Other Information:	
Notes	There were no benefit changes during the year.

A detailed description of the actuarial assumptions and methods can be found in the December 31, 2014 Illinois Municipal Retirement Fund annual actuarial valuation report.

SECTION C CALCULATION OF THE SINGLE DISCOUNT RATE

CALCULATION OF THE SINGLE DISCOUNT RATE

GASB Statement No. 68 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 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 assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a "risk-free" 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) 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 7.50%; the municipal bond rate is 3.56%; and the resulting single discount rate is 7.49%.

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).

Expected Contributions are developed based on the following:

- Member Contributions for current members
- Normal Cost contributions for current members
- Unfunded Liability contributions for current and future members.

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.

SINGLE DISCOUNT RATE DEVELOPMENT PROJECTION OF CONTRIBUTIONS

Year	Payroll for Current Employees	Contributions from Current Employees	Normal Cost Contributions	UAL Contributions	Total Contributions
0	\$ 2,066,746				
1	\$ 2,066,746 2,053,290	\$ 92,398	\$ 157,147	\$ 80,029	\$ 329,574
2		\$ <u>92,398</u> 86,586	130,899		325,574 306,903
2	1,924,140			89,418	
4	1,815,654	81,704	124,057	71,120	276,881
4 5	1,712,384	77,057	117,170	50,032	244,260
6	1,615,073	72,678 68,644	110,512	30,064 32,756	213,254
7	1,525,429	64,884	104,227		205,627
8	1,441,864		98,375	33,902	197,161
o 9	1,360,631 1,279,830	61,228	92,429	35,089	188,746 180,469
10		57,592	86,560	36,317	· · · · · · · · · · · · · · · · · · ·
10	1,196,424	53,839 50,047	80,446	37,588	171,873
	1,112,165	-	74,340	38,903	163,291
12	1,034,915	46,571	68,563	40,265	155,399
13	964,573	43,406	63,426	41,674	148,506
14	898,750	40,444	58,475	43,133	142,052
15	838,838	37,748	54,080	42,390	134,218
16	788,124	35,466	50,342	41,661	127,469
17	743,177	33,443	47,030	40,944	121,417
18	697,831	31,402	43,747	40,239	115,388
19	649,758	29,239	40,412	39,547	109,198
20	602,106	27,095	37,091	38,866	103,052
21	555,194	24,984	33,927	38,197	97,107
22	511,968	23,039	30,981	37,540	91,559
23	472,740	21,273	28,280	36,894	86,447
24	434,247	19,541	25,720	36,259	81,520
25	398,014	17,911	23,298	35,635	76,844
26	365,739	16,458	21,084	35,021	72,563
27	334,873	15,069	19,006	34,419	68,494
28	302,423	13,609	16,835	33,826	64,271
29	272,281	12,253	14,834	33,244	60,331
30	247,398	11,133	13,210	32,672	57,014
31	226,971	10,214	11,850	32,110	54,173
32	210,786	9,485	10,775	31,557	51,818
33	188,751	8,494	9,444	31,014	48,951
34	167,593	7,542	8,269	30,480	46,291
35	142,310	6,404	6,937	29,956	43,297
36	102,206	4,599	4,952	29,440	38,991
37	65,148	2,932	3,189	28,933	35,054
38	34,202	1,539	1,711	28,435	31,686
39	14,973	674	799	27,946	29,419
40	8,470	381	516	27,465	28,362
41	5,979	269	398	26,992	27,660
42	4,380	197	305	26,528	27,030
43	3,203	144	223	26,071	26,438
44	2,330	105	166	25,622	25,893
45	1,237	56	88	25,181	25,325
46	554	25	39	24,748	24,812
47	386	17	27	24,322	24,366
48	180	8	13	23,904	23,925
49	0	0	0	23,492	23,492
50	0	0	0	23,088	23,088

SINGLE DISCOUNT RATE DEVELOPMENT PROJECTION OF CONTRIBUTIONS (CONCLUDED)

Year	Payroll for Current Employees	Contributions from Current Employees	Normal Cost Contributions	UAL Contributions	Total Contributions
51	\$ 0	\$ 0	\$ 0	\$ 22,690	\$ 22,690
52	0	0	0	22,300	22,300
53	0	0	0	21,916	21,916
54	0	0	0	21,539	21,539
55	0	0	0	21,000	21,168
56	0	0	0	20,804	20,804
57	0	0	0	20,446	20,446
58	0	0	0	20,094	20,094
59	0	0	0	19,748	19,748
60	0	0	0	19,408	19,408
61	0	0	0	19,074	19,074
62	0	0	0	18,746	18,746
63	0	0	0	18,424	18,424
64	0	0	0	18,106	18,106
65	0	0	0	17,795	17,795
66	0	0	0	17,488	17,488
67	0	0	0	17,488	17,188
68	0	0	0	16,892	16,892
69	0	0	0	16,601	16,601
70	0	0	0	16,315	16,315
70	0	0	0	16,034	16,034
72	0	0	0		
72	0	0	0	15,758	15,758
				15,487	15,487
74 75	0	0	0	15,221	15,221
75 76	0	0	0	14,959	14,959
76	0	0	0	14,701	14,701
77 79	0	0	0	14,448	14,448
78 70	0	0	0	14,200	14,200
79 80	0	0	0	13,955	13,955
80	0	0	0	13,715	13,715
81	0	0	0	13,479	13,479
82	0	0	0	13,247	13,247
83	0	0	0 0	13,019	13,019
84	0	0		12,795	12,795
85 86	0	0	0	12,575	12,575
86	0	0	0	12,358	12,358
87	0	0	0	12,146	12,146
88	0	0	0	11,937	11,937
89	0	0	0	11,731	11,731
90	0	0	0	11,529	11,529
91 02	0	0	0	11,331	11,331
92 02	0	0	0	11,136	11,136
93 04	0	0	0	10,944	10,944
94 05	0	0	0	10,756	10,756
95 06	0	0	0	10,571	10,571
96	0	0	0	10,389	10,389
97	0	0	0	10,210	10,210
98	0	0	0	10,034	10,034
99	0	0	0	9,861	9,861
100	0	0	0	9,692	9,692

SINGLE DISCOUNT RATE DEVELOPMENT PROJECTION OF PLAN FIDUCIARY NET POSITION

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Investment Earnings at 7.50%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
1	\$ 14,670,440	\$ 329,574	\$ 977,929	\$ 1,076,409	\$ 15,098,494
2	15,098,494	306,903	1,015,059	1,106,311	15,496,649
3	15,496,649	276,881	1,034,917	1,134,336	15,872,951
4	15,872,951	244,260	1,068,194	1,160,132	16,209,148
5	16,209,148	213,254	1,113,155	1,182,550	16,491,796
6	16,491,796	205,627	1,152,698	1,202,012	16,746,737
7	16,746,737	197,161	1,190,112	1,219,443	16,973,229
8	16,973,229	188,746	1,226,155	1,234,793	17,170,612
9	17,170,612	180,469	1,259,910	1,248,049	17,339,220
10	17,339,220	171,873	1,305,513	1,258,699	17,464,278
11	17,464,278	163,291	1,349,537	1,266,141	17,544,173
12	17,544,173	155,399	1,388,698	1,270,400	17,581,275
12	17,581,275	148,506	1,426,110	1,270,400	17,575,222
13	17,575,222	142,052	1,456,921	1,269,725	17,530,078
14	17,530,078	134,218	1,479,730	1,265,211	17,330,078
					17,340,225
16	17,449,777	127,469	1,495,385	1,258,364	
17	17,340,225	121,417	1,506,670	1,249,509	17,204,481
18	17,204,481	115,388	1,517,737	1,238,699	17,040,832
19	17,040,832	109,198	1,527,149	1,225,850	16,848,731
20	16,848,731	103,052	1,538,168	1,210,811	16,624,425
21	16,624,425	97,107	1,545,823	1,193,487	16,369,197
22	16,369,197	91,559	1,546,003	1,174,134	16,088,888
23	16,088,888	86,447	1,544,593	1,152,975	15,783,717
24	15,783,717	81,520	1,540,950	1,130,039	15,454,326
25	15,454,326	76,844	1,532,004	1,105,492	15,104,657
26	15,104,657	72,563	1,519,403	1,079,574	14,737,392
27	14,737,392	68,494	1,505,195	1,052,402	14,353,092
28	14,353,092	64,271	1,492,392	1,023,896	13,948,867
29	13,948,867	60,331	1,474,785	994,082	13,528,494
30	13,528,494	57,014	1,449,875	963,349	13,098,983
31	13,098,983	54,173	1,420,380	932,117	12,664,893
32	12,664,893	51,818	1,387,390	900,688	12,230,009
33	12,230,009	48,951	1,360,742	868,948	11,787,166
34	11,787,166	46,291	1,327,012	836,879	11,343,323
35	11,343,323	43,297	1,309,940	804,109	10,880,789
36	10,880,789	38,991	1,299,473	769,646	10,389,953
37	10,389,953	35,054	1,277,942	733,481	9,880,545
38	9,880,545	31,686	1,255,555	695,975	9,352,651
39	9,352,651	29,419	1,217,811	657,690	8,821,950
40	8,821,950	28,362	1,166,673	619,731	8,303,370
41	8,303,370	27,660	1,113,875	582,756	7,799,910
42	7,799,910	27,030	1,061,291	546,910	7,312,560
43	7,312,560	26,438	1,008,858	512,267	6,842,407
44	6,842,407	25,893	957,249	478,886	6,389,938
45	6,389,938	25,325	906,522	446,798	5,955,538
46	5,955,538	24,812	856,392	416,045	5,540,004
47	5,540,004	24,366	807,200	386,675	5,143,844
48	5,143,844	23,925	759,797	358,692	4,766,664
49	4,766,664	23,492	713,905	332,077	4,408,329
50	4,408,329	23,088	669,771	306,812	4,068,458
50	т,т00,525	25,088	009,771	500,012	т,000,т30

SINGLE DISCOUNT RATE DEVELOPMENT PROJECTION OF PLAN FIDUCIARY NET POSITION (CONCLUDED)

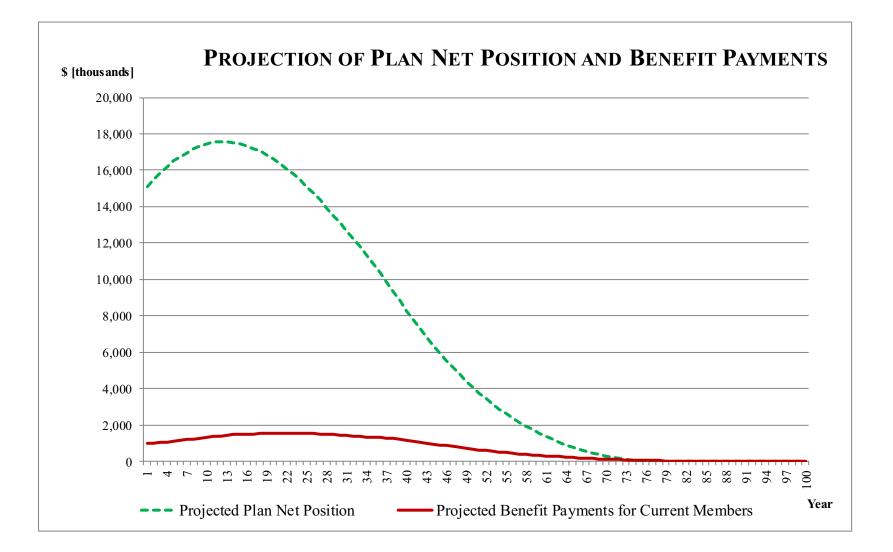
Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Investment Earnings at 7.50%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
51	\$ 4,068,458	\$ 22,690	\$ 627,596	\$ 282,860	\$ 3,746,413
52	3,746,413	22,300	587,399	260,173	3,441,487
53	3,441,487	21,916	549,141	238,698	3,152,960
54	3,152,960	21,539	512,753	218,384	2,880,131
55	2,880,131	21,168	478,122	199,184	2,622,361
56	2,622,361	20,804	445,122	181,053	2,379,096
57	2,379,096	20,446	413,656	163,953	2,149,840
58	2,149,840	20,094	383,640	147,851	1,934,146
59	1,934,146	19,748	355,003	132,716	1,731,607
60	1,731,607	19,408	327,686	118,519	1,541,848
61	1,541,848	19,074	301,623	105,235	1,364,534
62	1,364,534	18,746	276,749	92,840	1,199,371
63	1,199,371	18,424	253,024	81,314	1,046,086
64	1,046,086	18,106	230,416	70,639	904,415
65	904,415	17,795	208,908	60,794	774,096
66	774,096	17,793	188,502	51,760	654,842
67	654,842	-	169,206	43,516	
		17,188			546,339
68	546,339	16,892	151,037	36,036	448,230
69 70	448,230	16,601	134,017	29,294	360,107
70	360,107	16,315	118,143	23,258	281,537
71	281,537	16,034	103,395	17,899	212,076
72	212,076	15,758	89,753	13,181	151,262
73	151,262	15,487	77,203	9,072	98,619
74	98,619	15,221	65,732	5,537	53,644
75	53,644	14,959	55,321	2,537	15,819
76	15,819	14,701	45,953	36	0
77	0	14,448	37,623	0	0
78	0	14,200	30,317	0	0
79	0	13,955	24,005	0	0
80	0	13,715	18,643	0	0
81	0	13,479	14,179	0	0
82	0	13,247	10,545	0	0
83	0	13,019	7,653	0	0
84	0	12,795	5,409	0	0
85	0	12,575	3,714	0	0
86	0	12,358	2,474	0	0
87	0	12,146	1,596	0	0
88	0	11,937	994	0	0
89	0	11,731	597	0	0
90	0	11,529	345	0	0
91	0	11,331	192	0	0
92	0	11,136	102	0	0
93	0	10,944	52	0	0
94	0	10,756	25	0	0
95	0	10,571	12	0	0
96	0	10,389	6	0	0
97	0	10,210	2	0	0
98	0	10,034	1	0	0
99	0	9,861	0	0	0
99 100	0	9,692	0	0	0
100	0	9,092	0	0	0

SINGLE DISCOUNT RATE DEVELOPMENT PRESENT VALUES OF PROJECTED BENEFITS

(a)(b)(c)(d)(e) $(f)=(d)*v^{((a)-5)}$ $(g)=(e)*v^{(a)}(d)$ 1\$14,670,440\$977,929\$0\$943,199\$215,098,4941,015,0591,015,0590910,706315,496,6491,034,9171,034,9170863,742415,872,9511,068,1941,068,1940829,317516,209,1481,113,1551,113,1550803,929616,491,7961,152,6981,152,6980774,406716,746,7371,190,1121,190,1120743,760816,973,2291,226,1551,226,1550712,823917,170,6121,259,9101,259,9100681,3461017,339,2201,305,5131,305,5130656,7511117,464,2781,349,5371,349,5370631,5331217,544,1731,388,6981,388,6980604,5201317,581,2751,426,1101,426,1200548,8101517,530,0781,479,7301,479,7300518,5131617,449,7771,495,3851,495,3850487,4411717,340,2251,506,6701,506,6700456,8551817,204,4811,517,7371,517,7370428,1031917,040,8321,527,1491,527,1490400,7052016,848,7311,538,1681,538,168	(a)5) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0) \$ 943,223) \$ 910,775) \$ \$) \$ <
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	910,775 863,850 829,463 804,110 774,620 744,002 713,091 681,636 657,064 631,865
3 $15,496,649$ $1,034,917$ $1,034,917$ 0 $863,742$ 4 $15,872,951$ $1,068,194$ $1,068,194$ 0 $829,317$ 5 $16,209,148$ $1,113,155$ $1,113,155$ 0 $803,929$ 6 $16,491,796$ $1,152,698$ $1,152,698$ 0 $774,406$ 7 $16,746,737$ $1,190,112$ $1,190,112$ 0 $743,760$ 8 $16,973,229$ $1,226,155$ $1,226,155$ 0 $712,823$ 9 $17,170,612$ $1,259,910$ $1,259,910$ 0 $681,346$ 10 $17,339,220$ $1,305,513$ $1,305,513$ 0 $656,751$ 11 $17,464,278$ $1,349,537$ $1,349,537$ 0 $631,533$ 12 $17,544,173$ $1,388,698$ $1,388,698$ 0 $604,520$ 13 $17,581,275$ $1,426,110$ $1,426,110$ 0 $577,494$ 14 $17,575,222$ $1,456,921$ 0 $548,810$ 15 $17,530,078$ $1,479,730$ 0 $518,513$ 16 $17,449,777$ $1,495,385$ $1,495,385$ 0 $487,441$ 17 $17,204,481$ $1,517,737$ 0 $428,103$ 19 $17,040,832$ $1,527,149$ $1,527,149$ 0 $400,705$ 20 $16,848,731$ $1,538,168$ $1,538,168$ 0 $375,438$ 21 $16,624,425$ $1,545,823$ $1,545,823$ 0 $350,983$	0 0 0 0 0 0 0 0 0 0 0 0	0 863,850 0 829,463 0 804,110 0 774,620 0 744,002 0 713,091 0 681,636 0 657,064 0 631,865
4 $15,872,951$ $1,068,194$ $1,068,194$ 0 $829,317$ 5 $16,209,148$ $1,113,155$ $1,113,155$ 0 $803,929$ 6 $16,491,796$ $1,152,698$ $1,152,698$ 0 $774,406$ 7 $16,746,737$ $1,190,112$ $1,190,112$ 0 $743,760$ 8 $16,973,229$ $1,226,155$ $1,226,155$ 0 $712,823$ 9 $17,170,612$ $1,259,910$ 0 $681,346$ 10 $17,339,220$ $1,305,513$ $1,305,513$ 0 $656,751$ 11 $17,464,278$ $1,349,537$ $1,349,537$ 0 $631,533$ 12 $17,544,173$ $1,388,698$ $1,388,698$ 0 $604,520$ 13 $17,581,275$ $1,426,110$ $1,426,110$ 0 $577,494$ 14 $17,575,222$ $1,456,921$ $1,456,921$ 0 $548,810$ 15 $17,530,078$ $1,479,730$ $1,479,730$ 0 $518,513$ 16 $17,449,777$ $1,495,385$ $1,495,385$ 0 $487,441$ 17 $17,340,225$ $1,506,670$ $1,506,670$ 0 $456,855$ 18 $17,204,481$ $1,517,737$ $1,517,737$ 0 $428,103$ 19 $17,040,832$ $1,527,149$ $1,527,149$ 0 $400,705$ 20 $16,848,731$ $1,538,168$ $1,538,168$ 0 $375,438$ 21 $16,624,425$ $1,548,823$ $1,548,23$ 0 $350,983$	0 0 0 0 0 0 0 0 0 0 0	b 829,463 0 804,110 0 774,620 0 744,002 0 713,091 0 681,636 0 657,064 0 631,865
5 16,209,148 1,113,155 1,113,155 0 803,929 6 16,491,796 1,152,698 1,152,698 0 774,406 7 16,746,737 1,190,112 1,190,112 0 743,760 8 16,973,229 1,226,155 1,226,155 0 712,823 9 17,170,612 1,259,910 1,259,910 0 681,346 10 17,339,220 1,305,513 1,305,513 0 656,751 11 17,464,278 1,349,537 0 631,533 12 17,541,173 1,388,698 1,388,698 0 604,520 13 17,581,275 1,426,110 1,426,110 0 577,494 14 17,575,222 1,456,921 0 548,810 15 17,530,078 1,479,730 1,479,730 0 518,513 16 17,449,777 1,495,385 1,495,385 0 487,441 17 17,340,225 1,506,670 1,506,670	0 0 0 0 0 0 0 0 0 0	0 804,110 0 774,620 0 744,002 0 713,091 0 681,636 0 657,064 0 631,865
6 $16,491,796$ $1,152,698$ $1,152,698$ 0 $77,406$ 7 $16,746,737$ $1,190,112$ $1,190,112$ 0 $743,760$ 8 $16,973,229$ $1,226,155$ $1,226,155$ 0 $712,823$ 9 $17,170,612$ $1,259,910$ $1,259,910$ 0 $681,346$ 10 $17,339,220$ $1,305,513$ $1,305,513$ 0 $656,751$ 11 $17,464,278$ $1,349,537$ 0 $631,533$ 12 $17,544,173$ $1,388,698$ $1,388,698$ 0 $604,520$ 13 $17,581,275$ $1,426,110$ $1,426,110$ 0 $577,494$ 14 $17,575,222$ $1,456,921$ 0 $548,810$ 15 $17,530,078$ $1,479,730$ $1,479,730$ 0 $518,513$ 16 $17,449,777$ $1,495,385$ $1,495,385$ 0 $487,441$ 17 $17,340,225$ $1,506,670$ $1,506,670$ 0 $456,855$ 18 $17,204,481$ $1,517,737$ $1,517,737$ 0 $428,103$ 19 $17,040,832$ $1,527,149$ $1,527,149$ 0 $400,705$ 20 $16,848,731$ $1,538,168$ $1,538,168$ 0 $375,438$ 21 $16,624,425$ $1,548,823$ $1,545,823$ 0 $350,983$	0 0 0 0 0 0 0 0 0	0 774,620 0 744,002 0 713,091 0 681,636 0 657,064 0 631,865
7 $16,746,737$ $1,190,112$ $1,190,112$ 0 $743,760$ 8 $16,973,229$ $1,226,155$ $1,226,155$ 0 $712,823$ 9 $17,170,612$ $1,259,910$ $1,259,910$ 0 $681,346$ 10 $17,339,220$ $1,305,513$ $1,305,513$ 0 $656,751$ 11 $17,464,278$ $1,349,537$ 0 $631,533$ 12 $17,544,173$ $1,388,698$ $1,388,698$ 0 $604,520$ 13 $17,581,275$ $1,426,110$ $1,426,110$ 0 $577,494$ 14 $17,575,222$ $1,456,921$ $1,456,921$ 0 $548,810$ 15 $17,530,078$ $1,479,730$ $1,479,730$ 0 $518,513$ 16 $17,449,777$ $1,495,385$ $1,495,385$ 0 $487,441$ 17 $17,204,481$ $1,517,737$ $1,517,737$ 0 $428,103$ 19 $17,040,832$ $1,527,149$ $1,527,149$ 0 $400,705$ 20 $16,848,731$ $1,538,168$ $1,538,168$ 0 $375,438$ 21 $16,624,425$ $1,548,823$ $1,548,23$ 0 $350,983$	0 0 0 0 0 0 0) 744,002) 713,091) 681,636) 657,064) 631,865
8 $16,973,229$ $1,226,155$ $1,226,155$ 0 $712,823$ 9 $17,170,612$ $1,259,910$ $1,259,910$ 0 $681,346$ 10 $17,339,220$ $1,305,513$ $1,305,513$ 0 $656,751$ 11 $17,464,278$ $1,349,537$ 0 $631,533$ 12 $17,544,173$ $1,388,698$ $1,388,698$ 0 $604,520$ 13 $17,581,275$ $1,426,110$ $1,426,110$ 0 $577,494$ 14 $17,57,5222$ $1,456,921$ $1,456,921$ 0 $548,810$ 15 $17,530,078$ $1,479,730$ $1,479,730$ 0 $518,513$ 16 $17,449,777$ $1,495,385$ $1,495,385$ 0 $487,441$ 17 $17,340,225$ $1,506,670$ $1,506,670$ 0 $428,103$ 19 $17,040,832$ $1,527,149$ $1,527,149$ 0 $400,705$ 20 $16,848,731$ $1,538,168$ $1,538,168$ 0 $375,438$ 21 $16,624,425$ $1,548,823$ $1,548,823$ 0 $350,983$	0 0 0 0 0 0 0) 713,091) 681,636) 657,064) 631,865
917,170,6121,259,9101,259,9100681,3461017,339,2201,305,5131,305,5130656,7511117,464,2781,349,5371,349,5370631,5331217,544,1731,388,6981,388,6980604,5201317,581,2751,426,1101,426,1100577,4941417,575,2221,456,9211,456,9210548,8101517,530,0781,479,7301,479,7300518,5131617,449,7771,495,3851,495,3850487,4411717,340,2251,506,6701,506,6700456,8551817,204,4811,517,7371,517,7370428,1031917,040,8321,527,1491,527,1490400,7052016,848,7311,538,1681,538,1680375,4382116,624,4251,545,8231,545,8230350,983	0 0 0 0 0	0 681,636 0 657,064 0 631,865
1017,339,2201,305,5131,305,5130656,7511117,464,2781,349,5371,349,5370631,5331217,544,1731,388,6981,388,6980604,5201317,581,2751,426,1101,426,1100577,4941417,575,2221,456,9211,456,9210548,8101517,530,0781,479,7301,479,7300518,5131617,449,7771,495,3851,495,3850487,4411717,340,2251,506,6701,506,6700456,8551817,204,4811,517,7371,517,7370428,1031917,040,8321,527,1491,527,1490400,7052016,848,7311,538,1681,538,1680375,4382116,624,4251,545,8231,545,8230350,983	0 0 0 0	657,064 631,865
1117,464,2781,349,5370631,5331217,544,1731,388,6981,388,6980604,5201317,581,2751,426,1101,426,1100577,4941417,575,2221,456,9211,456,9210548,8101517,530,0781,479,7301,479,7300518,5131617,449,7771,495,3851,495,3850487,4411717,340,2251,506,6701,506,6700456,8551817,204,4811,517,7371,517,7370428,1031917,040,8321,527,1491,527,1490400,7052016,848,7311,538,1681,538,1680375,4382116,624,4251,545,8231,545,8230350,983	0 0 0	631,865
12 17,544,173 1,388,698 1,388,698 0 604,520 13 17,581,275 1,426,110 1,426,110 0 577,494 14 17,575,222 1,456,921 1,456,921 0 548,810 15 17,530,078 1,479,730 1,479,730 0 518,513 16 17,449,777 1,495,385 1,495,385 0 487,441 17 17,340,225 1,506,670 1,506,670 0 456,855 18 17,204,481 1,517,737 1,517,737 0 428,103 19 17,040,832 1,527,149 1,527,149 0 400,705 20 16,848,731 1,538,168 1,538,168 0 375,438 21 16,624,425 1,545,823 1,545,823 0 350,983	0 0	· · · · · · · · · · · · · · · · · · ·
13 17,581,275 1,426,110 1,426,110 0 577,494 14 17,575,222 1,456,921 1,456,921 0 548,810 15 17,530,078 1,479,730 1,479,730 0 518,513 16 17,449,777 1,495,385 1,495,385 0 487,441 17 17,340,225 1,506,670 1,506,670 0 456,855 18 17,204,481 1,517,737 1,517,737 0 428,103 19 17,040,832 1,527,149 1,527,149 0 400,705 20 16,848,731 1,538,168 1,538,168 0 375,438 21 16,624,425 1,545,823 1,545,823 0 350,983	0	601 969
1417,575,2221,456,9211,456,9210548,8101517,530,0781,479,7301,479,7300518,5131617,449,7771,495,3851,495,3850487,4411717,340,2251,506,6701,506,6700456,8551817,204,4811,517,7371,517,7370428,1031917,040,8321,527,1491,527,1490400,7052016,848,7311,538,1681,538,1680375,4382116,624,4251,545,8231,545,8230350,983		004,000
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1617,449,7771,495,3851,495,3850487,4411717,340,2251,506,6701,506,6700456,8551817,204,4811,517,7371,517,7370428,1031917,040,8321,527,1491,527,1490400,7052016,848,7311,538,1681,538,1680375,4382116,624,4251,545,8231,545,8230350,983	-	549,181
1717,340,2251,506,6701,506,6700456,8551817,204,4811,517,7371,517,7370428,1031917,040,8321,527,1491,527,1490400,7052016,848,7311,538,1681,538,1680375,4382116,624,4251,545,8231,545,8230350,983	0	518,890
1817,204,4811,517,7371,517,7370428,1031917,040,8321,527,1491,527,1490400,7052016,848,7311,538,1681,538,1680375,4382116,624,4251,545,8231,545,8230350,983	0	487,819
1917,040,8321,527,1490400,7052016,848,7311,538,1681,538,1680375,4382116,624,4251,545,8231,545,8230350,983	0	457,233
2016,848,7311,538,1681,538,1680375,4382116,624,4251,545,8231,545,8230350,983	0	428,479
21 16,624,425 1,545,823 1,545,823 0 350,983	0	401,077
	0	375,805
	0	351,344
22 16,369,197 1,546,003 1,546,003 0 326,534	0	326,886
23 16,088,888 1,544,593 1,544,593 0 303,476	0	303,818
24 15,783,717 1,540,950 1,540,950 0 281,637	0	281,969
25 15,454,326 1,532,004 1,532,004 0 260,467	0	260,787
26 15,104,657 1,519,403 1,519,403 0 240,302	0	240,609
27 14,737,392 1,505,195 1,505,195 0 221,446	0	221,741
28 14,353,092 1,492,392 1,492,392 0 204,244	0	204,526
29 13,948,867 1,474,785 1,474,785 0 187,753	0	188,022
30 13,528,494 1,449,875 1,449,875 0 171,704	0	171,958
31 13,098,983 1,420,380 1,420,380 0 156,475	0	156,715
32 12,664,893 1,387,390 1,387,390 0 142,178	0	142,402
33 12,230,009 1,360,742 1,360,742 0 129,718	0	129,930
34 11,787,166 1,327,012 1,327,012 0 117,677	0	117,875
35 11,343,323 1,309,940 1,309,940 0 108,059	0	108,246
36 10,880,789 1,299,473 1,299,473 0 99,716	0	99,894
37 10,389,953 1,277,942 1,277,942 0 91,223	0	91,390
38 9,880,545 1,255,555 1,255,555 0 83,372	0	83,528
39 9,352,651 1,217,811 1,217,811 0 75,224	0	75,369
40 8,821,950 1,166,673 1,166,673 0 67,037	0	67,170
41 8,303,370 1,113,875 1,113,875 0 59,538	0	59,659
42 7,799,910 1,061,291 1,061,291 0 52,770	0	52,879
43 7,312,560 1,008,858 1,008,858 0 46,663	0	46,762
44 6,842,407 957,249 957,249 0 41,187	0	
45 6,389,938 906,522 906,522 0 36,283	0	
46 5,955,538 856,392 856,392 0 31,885	0	
47 5,540,004 807,200 807,200 0 27,957	0	
48 5,143,844 759,797 759,797 0 24,479	0	
49 4,766,664 713,905 713,905 0 21,396	0	
50 4,408,329 669,771 0 18,673	0	

SINGLE DISCOUNT RATE DEVELOPMENT PRESENT VALUES OF PROJECTED BENEFITS (CONCLUDED)

Year	Projected Beginning Plan 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)^(a5)
51	\$ 4,068,458	\$ 627,596	\$ 627,596	\$ 0	\$ 16,276	\$ 0	\$ 16,317
52	3,746,413	587,399	587,399	0	14,171	0	14,207
53	3,441,487	549,141	549,141	0	12,324	0	12,356
54	3,152,960	512,753	512,753	0	10,704	0	10,733
55	2,880,131	478,122	478,122	0	9,285	0	9,310
56	2,622,361	445,122	445,122	0	8,041	0	8,063
57	2,379,096	413,656	413,656	0	6,951	0	6,971
58	2,149,840	383,640	383,640	0	5,997	0	6,014
59	1,934,146	355,003	355,003	0	5,162	0	5,177
60	1,731,607	327,686	327,686	0	4,433	0	4,446
61	1,541,848	301,623	301,623	0	3,795	0	3,807
62	1,364,534	276,749	276,749	0	3,239	0	3,249
63	1,199,371	253,024	253,024	0	2,755	0	2,764
64	1,046,086	230,416	230,416	0	2,334	0	2,341
65	904,415	208,908	208,908	0	1,968	0	1,975
66	774,096	188,502	188,502	0	1,652	0	1,658
67	654,842	169,206	169,206	0	1,380	0	1,384
68	546,339	151,037	151,037	0	1,380	0	
69	448,230	131,037	131,037	0	946	0	1,149 949
09 70				0		0	
	360,107	118,143	118,143		775		778
71	281,537	103,395	103,395	0	631	0	633
72	212,076	89,753	89,753	0	510	0	512
73	151,262	77,203	77,203	0	408	0	409
74	98,619	65,732	65,732	0	323	0	324
75	53,644	55,321	53,644	1,676	245	124	254
76	15,819	45,953	15,819	30,134	67	2,148	196
77	0	37,623	0	37,623	0	2,590	149
78	0	30,317	0	30,317	0	2,015	112
79	0	24,005	0	24,005	0	1,541	82
80	0	18,643	0	18,643	0	1,155	60
81	0	14,179	0	14,179	0	849	42
82	0	10,545	0	10,545	0	609	29
83	0	7,653	0	7,653	0	427	20
84	0	5,409	0	5,409	0	291	13
85	0	3,714	0	3,714	0	193	8
86	0	2,474	0	2,474	0	124	5
87	0	1,596	0	1,596	0	77	3
88	0	994	0	994	0	47	2
89	0	597	0	597	0	27	1
90	0	345	0	345	0	15	1
91	0	192	0	192	0	8	0
92	0	102	0	102	0	4	0
93	0	52	0	52	0	2	0
94	0	25	0	25	0	1	0
95	0	12	0	12	0	0	0
96	0	6	0	6	0	0	0
97	0	2	0	2	0	0	0
98	0	1	0	- 1	0	0	0
99	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0
	0	0	0	Totals	\$ 17,044,964		



SECTION D GLOSSARY OF TERMS

GLOSSARY OF TERMS

- Actuarial Accrued Liability 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 ValueThe amount of funds currently required to provide a payment or series of
payments in the future. The present value is determined by discounting
future payments at predetermined rates of interest and 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.
- *Actuarial Valuation Date* The date as of which an actuarial valuation is performed.

Actuarially Determined
Contribution (ADC) or
Annual RequiredA 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 (CONTINUED)

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 Valuation Payroll	The earnings of covered employees for the year ended on the valuation date, which is typically only the pensionable pay and does not include pay above any pay cap. It is not necessarily the same as payroll actually paid because it excludes all pay for people who exited during the year.
Deferred Inflows and Outflows	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	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:
	 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 The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.
Entry Age Actuarial Cost Method (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 (CONTINUED)

GASB	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
Fiduciary Net Position	The fiduciary net position is the value of the assets of the trust.
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. 68, 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 Contribution Entities	Non-employer contribution 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 statement 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 (CONCLUDED)

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:
	 Service Cost; Interest on the Total Pension Liability; Current-Period Benefit Changes; Employee Contributions (made negative for addition here); Projected Earnings on Plan Investments (made negative for addition here); Pension Plan Administrative Expense; Other Changes in Plan Fiduciary Net Position; Recognition of Outflow (Inflow) of Resources due to Liabilities; and Recognition of Outflow (Inflow) of Resources due to Assets.
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 assets used in determining the unfunded liability of the plan. For purposes of the GASB Statement No. 68, the valuation asset is equal to the market value of assets.