



110 West Berry Street
Suite 1300
Fort Wayne, IN 46802

October 6, 2023

Mr. Thomas Causey
Executive Director
State of North Carolina
Department of State Treasurer
Retirement Systems Division
3200 Atlantic Avenue
Raleigh, NC 27604

**Teachers' and State Employees' Retirement System
GASB 67 Disclosure for Fiscal Year Ending June 30, 2023
Based on Valuation Date of December 31, 2022 (updated)¹**

Dear Mr. Causey:

We have prepared the required accounting information for Governmental Accounting Standards Board (GASB) Statement No. 67 for the Teachers' and State Employees' Retirement System of North Carolina (TSERS) for fiscal year ending June 30, 2023 based on a valuation date of December 31, 2022.

GASB Statement No. 67

GASB Statement No. 67 set forth certain items of information to be disclosed in the financial statements of the Plan.

1. One such item is a distribution of the number of employees by type of membership, as follows:

Number of Active and Retired Participants as of 12/31/2022	
Retired members and survivors of deceased members currently receiving benefits	246,374
Terminated members and survivors of deceased members entitled to benefits but not yet receiving benefits	214,465
Active members ²	<u>302,293</u>
Total	763,132

¹ This letter is an update to the GASB 67 letter dated August 31, 2023, reflecting the provisions of House Bill 259, which became law on October 3, 2023.

² Includes current recipients of DIP benefits.

2. Following is the schedule of changes in Net Pension Liability

Schedule of Changes in Net Pension Liability as of June 30, 2023		
Total Pension Liability		
Service Cost	\$	1,932,122,000
Interest		6,027,474,000
Changes in Benefit Terms		213,711,000
Differences Between Expected and Actual Experience		1,812,215,000
Changes of Assumptions		0
Benefits Payments, including Refund of Member Contributions		<u>(5,636,727,000)</u>
Net Change in Total Pension Liability	\$	4,348,795,000
Total Pension Liability – Beginning of Year	\$	93,572,242,000
Total Pension Liability – End of Year	\$	97,921,037,000
Plan Fiduciary Net Position		
Employer Contributions	\$	3,034,897,000
Member Contributions		1,059,460,000
Net Investment Income		4,075,935,000
Benefit Payments, including Refund of Member Contributions		(5,636,727,000)
Administrative Expenses		(16,093,000)
Other		<u>1,578,000</u>
Net Change in Plan Fiduciary Net Pension	\$	2,519,050,000
Plan Fiduciary Net Pension – Beginning of Year	\$	78,730,004,000
Plan Fiduciary Net Pension – End of Year	\$	81,249,054,000

Net Pension Liability/(Asset)		
	June 30, 2023	June 30, 2022
Total Pension Liability	\$ 97,921,037,000	\$ 93,572,242,000
Plan Fiduciary Net Pension	<u>81,249,054,000</u>	<u>78,730,004,000</u>
Net Pension Liability/(Asset)	\$ 16,671,983,000	\$ 14,842,238,000
Plan Fiduciary Net Pension as a Percentage of the Total Pension Liability/(Asset)	82.97%	84.14%

3. Following is the sensitivity of the Net Pension Liability to changes in the discount rate.

Sensitivity of the Net Pension Liability to Changes in Discount Rate			
	1% Decrease	Current	1% Increase
Discount Rate	5.50%	6.50%	7.50%
Net Pension Liability (Asset)	\$ 28,621,888,000	\$ 16,671,983,000	\$ 6,813,699,000

4. The discount rate used to measure the total pension liability was 6.50%. The projection of cash flows used to determine the discount rate assumed that for fiscal years ending 2023 through 2027, System contributions will follow the Employer Contribution Rate Stabilization Policy as adopted by the Board of Trustees on April 29, 2021, and “direct-rate smoothing” as adopted by the Board of Trustees on January 28, 2021. It is assumed that for fiscal years 2028 and beyond, System contributions will be based on the actuarially determined contribution rate with a minimum employer contribution rate of 6.00% of payroll in accordance with G.S 135-8(d)(1a). In addition, assumed contributions include contributions based on payroll from future employees of the System that are not associated with the accumulation of their plan benefits. Investment earnings are based on actual returns through June 30, 2023, and on the assumed investment rate of return thereafter. In addition, future administrative expenses are assumed to equal 0.1% of projected payroll, but are limited to a flat dollar rate per active and in-pay member as of each valuation date. The flat dollar rate is \$27 in 2022 and increased by 2.5% each year thereafter. Based on those policies, the System’s fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Please see Appendix A for additional detail.

Note that the projection of cash flows in Appendix A has not been updated to reflect the provisions of House Bill 259. However, based on the policies described above as well as the benefits and appropriation updates described in HB 259, the System’s fiduciary net position is still projected to be made available to make all projected future benefit payments of current plan members.

5. Methods and assumptions used to calculate the actuarially determined contribution rate are as follows:

Valuation Date	12/31/2022
Actuarial Cost Method	Entry Age
Amortization Method	Level dollar closed
Amortization Period	12-year closed period
Asset Valuation Method	Asset returns in excess of or less than the expected return on market value of assets reflected over a five-year period (not greater than 120% of market value and not less than 80% of market value)
Actuarial Assumptions:	
Investment Rate of Return*	6.50%
Projected Salary Increases**	3.25% - 8.05%
*Includes Inflation of	2.50%
**Includes Inflation and Productivity of	3.25%
Cost-of-living Adjustments	N/A

The June 30, 2023 total pension liability was determined by an actuarial valuation as of December 31, 2022, based on the assumptions adopted by the Board of Trustees on January 28, 2021, which are based on the experience study prepared as of December 31, 2019, including a discount rate of 6.50%. The economic assumptions with respect to investment yield, salary increase, and inflation have been based upon a review of the existing portfolio structure as well as recent and anticipated experience.

The plan sponsor selected the assumptions used for the accounting results in this letter. We believe that these assumptions are reasonable and comply with the Actuarial Standards of Practice ("ASOPs") 27 and 35 and the requirements of GASB Statement No. 67. We prepared this letter in accordance with the requirement of this standard.

ASOPs 27 and 35 ask the actuary to disclose the information and analysis used to support the actuary's determination that the assumptions selected by the plan sponsor do not significantly conflict with what, in the actuary's professional judgment, are reasonable for the purpose of the measurement. In the case of the plan sponsor's selection of expected return on assets ("EROA"), the signing actuaries have used economic information and tools provided by the Financial Risk Management ("FRM") practice at Buck, A Gallagher Company (Buck). A spreadsheet tool created by the FRM team converts averages, standard deviations, and correlations from Buck's Capital Markets Assumptions ("CMA") that are used for stochastic forecasting into approximate percentile ranges for the arithmetic and geometric average returns. It is intended to suggest possible reasonable ranges for EROA without attempting to predict or select a specific best estimate rate of return. It takes into account the duration (horizon) of investment and the target allocation of assets in the portfolio to various asset classes. Based on the actuary's analysis, including consistency with other assumptions used in the valuation and the percentiles generated by the spreadsheet described above, the actuary believes the EROA, in the actuary's professional judgment, is reasonable for the purpose of the measurement.

The June 30, 2023 total pension liability is based on the same plan provisions as used in the previous valuation, except that it reflects the provisions of House Bill 259, which became law on October 3, 2023. In particular, the June 30, 2023 total pension liability reflects the one-time supplement for TSERS payees in pay status as of October 1, 2023 that is equal to 4% of their annual allowance and payable in November 2023. All other TSERS provisions enacted by the legislature were reviewed with staff of the Retirement Systems Division and were not considered material to the current valuation.

Other than the 4% supplement described above, full summaries of the assumptions, methods and plan provisions used in the previous valuation and for the June 30, 2023 total pension liability were provided in October 2022 in the "Report on the Seventy-Ninth Actuarial Valuation of the Teachers' and State Employees' Retirement System of North Carolina Prepared as of December 31, 2021."

The actuarial cost method used to develop the total pension liability is the Entry Age Normal Cost Method, as required by GASB Statement No. 67.

The results of this letter are based upon participant data supplied by the Retirement Systems Division and unaudited financial data supplied by the Financial Operations Division. Buck reviewed the data for reasonableness and consistency with data for the prior valuation but performed no audit of the data. The results of this letter are dependent on the accuracy of the data.

The primary purpose of the letter is to provide information that the Office of the State Controller (OSC) requires for its Annual Comprehensive Financial Report. This letter may also be used in conjunction with other materials for purposes of the pension plan audit. Use of the letter for any other purposes or by anyone other than OSC and its auditors may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the letter for that purpose. Because of the risk of misinterpretation of actuarial results, you should ask us to review any statement you wish to make on the results contained in this report. Buck will not accept any liability for any such statement made without prior review by Buck.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Because of limited scope, Buck performed no analysis of the potential range of such future differences.

Actuarial Standard of Practice No. 56 ("ASOP 56") provides guidance to actuaries when performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. Buck uses third-party software in the performance of annual actuarial valuations and projections. The model is intended to calculate the liabilities associated with the provisions of the Plan using data and assumptions as of the measurement date under the accounting rules specified in this report. The output from the third-party vendor software is used as input to an internally developed model that applies applicable accounting rules to the liabilities derived and other inputs, such as Plan assets and contributions, to generate many of the exhibits found in this report. Buck has an extensive review process whereby the results of the liability calculations are checked using detailed sample output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other accounting outputs and the internal model are similarly reviewed in detail and at a high level for accuracy, reasonability, and consistency with prior results. Buck also reviews the third-party model when significant changes are made to the software. The review is performed by experts within the company who are familiar with applicable accounting rules as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed. Significant changes to the internal model that are applicable to multiple clients are generally developed, checked and reviewed by multiple experts within the company who are familiar with the details of the required changes.

Where presented, references to "net pension liability" and "fiduciary net position as a percentage of the total pension liability" may be appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the Fund if the Fund were to settle (i.e., purchase annuities to cover) any portion of its liabilities.

This report was prepared under our supervision and in accordance with all applicable Actuarial Standards of Practice. We are Fellows of the Society of Actuaries, Enrolled Actuaries, Members of the American Academy of Actuaries, and Fellows of the Conference of Consulting Actuaries. We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. We are available to discuss this report with you at your convenience.

Mr. Thomas Causey
October 6, 2023

Please let us know if you require additional information.

Sincerely,

Buck, A Gallagher Company

A handwritten signature in black ink that reads "Michael A. Ribble". The signature is written in a cursive style with a clear, legible font.

Michael A. Ribble, FSA, EA, MAAA, FCA
Principal, Consulting Actuary

A handwritten signature in black ink that reads "Elizabeth A. Wiley". The signature is written in a cursive style with a clear, legible font.

Elizabeth A. Wiley, FSA, EA, MAAA, FCA
Senior Actuarial Consultant

Appendix A Table 1 – Projection of Fiduciary Net Positions

(\$ in Thousands)

Calendar Year	Beginning Fiduciary Position	Member Contributions	Employer Contributions	Benefit Payments	Administrative Expenses	Investment Earnings	Ending Fiduciary Position
2023	\$ 77,445,237	\$ 986,691	\$ 2,780,825	\$ 5,760,164	\$ 16,184	\$ 7,163,365	\$ 82,599,770
2024	82,599,770	933,297	2,646,914	5,940,651	15,308	5,292,989	85,517,011
2025	85,517,011	882,960	2,629,867	6,112,631	14,608	5,474,975	88,377,574
2026	88,377,574	837,031	2,666,401	6,292,477	14,630	5,654,856	91,228,755
2027	91,228,755	794,081	2,933,386	6,476,222	14,697	5,841,472	94,306,775
2028	94,306,775	753,030	3,473,268	6,671,508	14,776	6,051,249	97,898,038
2029	97,898,038	712,787	3,589,717	6,880,642	14,835	6,280,427	101,585,492
2030	101,585,492	672,890	3,230,186	7,092,413	14,875	6,500,560	104,881,840
2031	104,881,840	633,328	2,812,766	7,302,613	14,897	6,693,479	107,703,903
2032	107,703,903	593,935	2,317,010	7,509,186	14,900	6,853,187	109,943,949
2033	109,943,949	554,655	1,952,507	7,711,877	14,888	6,979,389	111,703,735
2034	111,703,735	515,823	1,640,563	7,909,455	14,859	7,076,234	113,012,041
2035	113,012,041	477,766	1,735,418	8,098,420	14,812	7,157,050	114,269,043
2036	114,269,043	440,649	1,491,357	8,275,387	14,747	7,224,102	115,135,017
2037	115,135,017	404,753	805,796	8,439,066	14,662	7,252,078	115,143,916
2038	115,143,916	371,201	613,720	8,578,139	14,565	7,240,994	114,777,127
2039	114,777,127	340,037	411,161	8,693,963	14,448	7,205,974	114,025,888
2040	114,025,888	309,668	309,668	8,802,120	14,310	7,149,472	112,978,266
2041	112,978,266	279,760	279,760	8,903,200	14,150	7,076,234	111,696,670
2042	111,696,670	250,019	250,019	9,001,321	13,963	6,987,894	110,169,318
2043	110,169,318	220,605	220,605	9,077,332	13,755	6,884,310	108,403,751
2044	108,403,751	192,305	192,305	9,122,145	13,529	6,766,312	106,418,999
2045	106,418,999	165,584	165,584	9,148,888	13,282	6,634,744	104,222,741
2046	104,222,741	140,350	140,350	9,156,487	13,011	6,490,139	101,824,082
2047	101,824,082	116,819	116,819	9,143,081	12,719	6,333,160	99,235,080
2048	99,235,080	95,537	95,537	9,103,860	12,412	6,164,777	96,474,659
2049	96,474,659	76,563	76,563	9,039,017	12,090	5,986,221	93,562,899
2050	93,562,899	59,652	59,652	8,948,949	11,754	5,798,766	90,520,266
2051	90,520,266	44,039	44,039	8,839,636	11,399	5,603,505	87,360,814
2052	87,360,814	29,937	29,937	8,710,487	11,044	5,401,381	84,100,538
2053	84,100,538	19,591	19,591	8,541,221	10,696	5,194,226	80,782,029
2054	80,782,029	13,241	13,241	8,331,254	10,346	4,984,845	77,451,756
2055	77,451,756	9,065	9,065	8,097,923	9,998	4,775,584	74,137,549
2056	74,137,549	6,232	6,232	7,849,281	9,651	4,567,944	70,859,025
2057	70,859,025	4,283	4,283	7,590,172	9,307	4,363,015	67,631,127
2058	67,631,127	2,939	2,939	7,323,621	8,968	4,161,654	64,466,070
2059	64,466,070	2,013	2,013	7,051,814	8,647	3,964,570	61,374,205
2060	61,374,205	1,371	1,371	6,776,334	8,359	3,772,381	58,364,635
2061	58,364,635	931	931	6,498,428	8,087	3,585,627	55,445,609
2062	55,445,609	625	625	6,219,687	7,820	3,404,797	52,624,149
2063	52,624,149	416	416	5,758,133	7,555	3,236,162	50,095,455
2064	50,095,455	272	272	5,487,285	7,290	3,080,458	47,681,882
2065	47,681,882	175	175	5,217,626	7,023	2,932,206	45,389,789
2066	45,389,789	110	110	4,949,808	6,752	2,791,792	43,225,241
2067	43,225,241	67	67	4,684,468	6,478	2,659,589	41,194,018
2068	41,194,018	40	40	4,422,225	6,200	2,535,955	39,301,628
2069	39,301,628	23	23	4,163,741	5,921	2,421,227	37,553,239
2070	37,553,239	13	13	3,909,664	5,639	2,315,717	35,953,679
2071	35,953,679	6	6	3,660,632	5,355	2,219,721	34,507,425
2072	34,507,425	3	3	3,417,255	5,071	2,133,509	33,218,614

Appendix A

Table 1 – Projection of Fiduciary Net Positions (continued)

(\$ in Thousands)

Calendar Year	Beginning Fiduciary Position	Member Contributions	Employer Contributions	Benefit Payments	Administrative Expenses	Investment Earnings	Ending Fiduciary Position
2073	\$ 33,218,614	\$ 1	\$ 1	\$ 3,180,112	\$ 4,787	\$ 2,057,330	\$ 32,091,047
2074	32,091,047	0	0	2,949,743	4,504	1,991,417	31,128,217
2075	31,128,217	0	0	2,726,650	4,222	1,935,979	30,333,324
2076	30,333,324	0	0	2,511,295	3,944	1,891,208	29,709,293
2077	29,709,293	0	0	2,304,105	3,669	1,857,283	29,258,802
2078	29,258,802	0	0	2,105,469	3,399	1,834,363	28,984,297
2079	28,984,297	0	0	1,915,739	3,135	1,822,597	28,888,020
2080	28,888,020	0	0	1,735,232	2,878	1,822,122	28,972,032
2081	28,972,032	0	0	1,564,228	2,630	1,833,061	29,238,235
2082	29,238,235	0	0	1,402,958	2,390	1,855,530	29,688,417
2083	29,688,417	0	0	1,251,603	2,161	1,889,642	30,324,295
2084	30,324,295	0	0	1,110,279	1,943	1,935,502	31,147,575
2085	31,147,575	0	0	979,033	1,737	1,993,219	32,160,024
2086	32,160,024	0	0	857,841	1,543	2,062,911	33,363,551
2087	33,363,551	0	0	746,604	1,362	2,144,704	34,760,289
2088	34,760,289	0	0	645,155	1,194	2,238,743	36,352,683
2089	36,352,683	0	0	553,261	1,040	2,345,193	38,143,575
2090	38,143,575	0	0	470,627	899	2,464,250	40,136,299
2091	40,136,299	0	0	396,892	772	2,596,139	42,334,774
2092	42,334,774	0	0	331,640	657	2,741,131	44,743,608
2093	44,743,608	0	0	274,398	555	2,899,540	47,368,195
2094	47,368,195	0	0	224,650	464	3,071,732	50,214,813
2095	50,214,813	0	0	181,842	385	3,258,134	53,290,720
2096	53,290,720	0	0	145,398	316	3,459,236	56,604,242
2097	56,604,242	0	0	114,734	257	3,675,596	60,164,847
2098	60,164,847	0	0	89,268	207	3,907,853	63,983,225
2099	63,983,225	0	0	68,417	166	4,156,716	68,071,358
2100	68,071,358	0	0	51,606	131	4,422,983	72,442,604
2101	72,442,604	0	0	38,273	103	4,707,542	77,111,770
2102	77,111,770	0	0	27,887	80	5,011,371	82,095,174
2103	82,095,174	0	0	19,950	62	5,335,546	87,410,708
2104	87,410,708	0	0	14,009	48	5,681,246	93,077,897
2105	93,077,897	0	0	9,658	37	6,049,753	99,117,955
2106	99,117,955	0	0	6,544	29	6,442,456	105,553,838
2107	105,553,838	0	0	4,368	23	6,860,859	112,410,306
2108	112,410,306	0	0	2,885	18	7,306,577	119,713,980
2109	119,713,980	0	0	1,896	15	7,781,348	127,493,417
2110	127,493,417	0	0	1,251	12	8,287,032	135,779,186
2111	135,779,186	0	0	837	10	8,825,620	144,603,959
2112	144,603,959	0	0	573	8	9,399,239	154,002,617
2113	154,002,617	0	0	404	7	10,010,157	164,012,363
2114	164,012,363	0	0	293	5	10,660,793	174,672,858
2115	174,672,858	0	0	218	5	11,353,729	186,026,364
2116	186,026,364	0	0	165	4	12,091,710	198,117,905
2117	198,117,905	0	0	125	3	12,877,659	210,995,436
2118	210,995,436	0	0	95	2	13,714,700	224,710,039
2119	224,710,039	0	0	71	2	14,606,150	239,316,116
2120	239,316,116	0	0	53	1	15,555,546	254,871,608
2121	254,871,608	0	0	39	1	16,566,653	271,438,221
2122	271,438,221	0	0	28	1	17,643,484	289,081,676

Appendix A

Table 2 – Actuarial Present Values of Projected Benefit Payments (\$ in Thousands)

Calendar Year	Beginning Fiduciary Position	Benefit Payments	Funded Benefit Payments	Unfunded Benefit Payments	Present Value of Benefit Payments		
					Funded Payments at 6.50%	Unfunded Payments at 3.65%	Using Single Discount Rate of 6.50%
2023	\$ 77,445,237	\$ 5,760,164	\$ 5,760,164	\$ 0	\$ 5,581,617	\$ 0	\$ 5,581,617
2024	82,599,770	5,940,651	5,940,651	0	5,405,173	0	5,405,173
2025	85,517,011	6,112,631	6,112,631	0	5,222,208	0	5,222,208
2026	88,377,574	6,292,477	6,292,477	0	5,047,752	0	5,047,752
2027	91,228,755	6,476,222	6,476,222	0	4,878,075	0	4,878,075
2028	94,306,775	6,671,508	6,671,508	0	4,718,470	0	4,718,470
2029	97,898,038	6,880,642	6,880,642	0	4,569,372	0	4,569,372
2030	101,585,492	7,092,413	7,092,413	0	4,422,542	0	4,422,542
2031	104,881,840	7,302,613	7,302,613	0	4,275,694	0	4,275,694
2032	107,703,903	7,509,186	7,509,186	0	4,128,303	0	4,128,303
2033	109,943,949	7,711,877	7,711,877	0	3,980,973	0	3,980,973
2034	111,703,735	7,909,455	7,909,455	0	3,833,770	0	3,833,770
2035	113,012,041	8,098,420	8,098,420	0	3,685,787	0	3,685,787
2036	114,269,043	8,275,387	8,275,387	0	3,536,459	0	3,536,459
2037	115,135,017	8,439,066	8,439,066	0	3,386,297	0	3,386,297
2038	115,143,916	8,578,139	8,578,139	0	3,232,021	0	3,232,021
2039	114,777,127	8,693,963	8,693,963	0	3,075,737	0	3,075,737
2040	114,025,888	8,802,120	8,802,120	0	2,923,945	0	2,923,945
2041	112,978,266	8,903,200	8,903,200	0	2,777,016	0	2,777,016
2042	111,696,670	9,001,321	9,001,321	0	2,636,264	0	2,636,264
2043	110,169,318	9,077,332	9,077,332	0	2,496,268	0	2,496,268
2044	108,403,751	9,122,145	9,122,145	0	2,355,485	0	2,355,485
2045	106,418,999	9,148,888	9,148,888	0	2,218,207	0	2,218,207
2046	104,222,741	9,156,487	9,156,487	0	2,084,554	0	2,084,554
2047	101,824,082	9,143,081	9,143,081	0	1,954,462	0	1,954,462
2048	99,235,080	9,103,860	9,103,860	0	1,827,303	0	1,827,303
2049	96,474,659	9,039,017	9,039,017	0	1,703,557	0	1,703,557
2050	93,562,899	8,948,949	8,948,949	0	1,583,645	0	1,583,645
2051	90,520,266	8,839,636	8,839,636	0	1,468,827	0	1,468,827
2052	87,360,814	8,710,487	8,710,487	0	1,359,030	0	1,359,030
2053	84,100,538	8,541,221	8,541,221	0	1,251,287	0	1,251,287
2054	80,782,029	8,331,254	8,331,254	0	1,146,035	0	1,146,035
2055	77,451,756	8,097,923	8,097,923	0	1,045,951	0	1,045,951
2056	74,137,549	7,849,281	7,849,281	0	951,959	0	951,959
2057	70,859,025	7,590,172	7,590,172	0	864,351	0	864,351
2058	67,631,127	7,323,621	7,323,621	0	783,096	0	783,096
2059	64,466,070	7,051,814	7,051,814	0	708,011	0	708,011
2060	61,374,205	6,776,334	6,776,334	0	638,829	0	638,829
2061	58,364,635	6,498,428	6,498,428	0	575,239	0	575,239
2062	55,445,609	6,219,687	6,219,687	0	516,962	0	516,962
2063	52,624,149	5,758,133	5,758,133	0	449,389	0	449,389
2064	50,095,455	5,487,285	5,487,285	0	402,114	0	402,114
2065	47,681,882	5,217,626	5,217,626	0	359,017	0	359,017
2066	45,389,789	4,949,808	4,949,808	0	319,801	0	319,801
2067	43,225,241	4,684,468	4,684,468	0	284,186	0	284,186
2068	41,194,018	4,422,225	4,422,225	0	251,903	0	251,903
2069	39,301,628	4,163,741	4,163,741	0	222,703	0	222,703
2070	37,553,239	3,909,664	3,909,664	0	196,351	0	196,351
2071	35,953,679	3,660,632	3,660,632	0	172,624	0	172,624
2072	34,507,425	3,417,255	3,417,255	0	151,311	0	151,311

Appendix A

Table 2 – Actuarial Present Values of Projected Benefit Payments (continued)

(\$ in Thousands)

Calendar Year	Beginning Fiduciary Position	Benefit Payments	Funded Benefit Payments	Unfunded Benefit Payments	Present Value of Benefit Payments		
					Funded Payments at 6.50%	Unfunded Payments at 3.65%	Using Single Discount Rate of 6.50%
2073	\$ 33,218,614	\$ 3,180,112	\$ 3,180,112	\$ 0	\$ 132,217	\$ 0	\$ 132,217
2074	32,091,047	2,949,743	2,949,743	0	115,154	0	115,154
2075	31,128,217	2,726,650	2,726,650	0	99,948	0	99,948
2076	30,333,324	2,511,295	2,511,295	0	86,436	0	86,436
2077	29,709,293	2,304,105	2,304,105	0	74,464	0	74,464
2078	29,258,802	2,105,469	2,105,469	0	63,892	0	63,892
2079	28,984,297	1,915,739	1,915,739	0	54,586	0	54,586
2080	28,888,020	1,735,232	1,735,232	0	46,425	0	46,425
2081	28,972,032	1,564,228	1,564,228	0	39,296	0	39,296
2082	29,238,235	1,402,958	1,402,958	0	33,094	0	33,094
2083	29,688,417	1,251,603	1,251,603	0	27,721	0	27,721
2084	30,324,295	1,110,279	1,110,279	0	23,090	0	23,090
2085	31,147,575	979,033	979,033	0	19,118	0	19,118
2086	32,160,024	857,841	857,841	0	15,729	0	15,729
2087	33,363,551	746,604	746,604	0	12,854	0	12,854
2088	34,760,289	645,155	645,155	0	10,430	0	10,430
2089	36,352,683	553,261	553,261	0	8,398	0	8,398
2090	38,143,575	470,627	470,627	0	6,708	0	6,708
2091	40,136,299	396,892	396,892	0	5,312	0	5,312
2092	42,334,774	331,640	331,640	0	4,167	0	4,167
2093	44,743,608	274,398	274,398	0	3,238	0	3,238
2094	47,368,195	224,650	224,650	0	2,489	0	2,489
2095	50,214,813	181,842	181,842	0	1,892	0	1,892
2096	53,290,720	145,398	145,398	0	1,420	0	1,420
2097	56,604,242	114,734	114,734	0	1,052	0	1,052
2098	60,164,847	89,268	89,268	0	769	0	769
2099	63,983,225	68,417	68,417	0	553	0	553
2100	68,071,358	51,606	51,606	0	392	0	392
2101	72,442,604	38,273	38,273	0	273	0	273
2102	77,111,770	27,887	27,887	0	187	0	187
2103	82,095,174	19,950	19,950	0	125	0	125
2104	87,410,708	14,009	14,009	0	83	0	83
2105	93,077,897	9,658	9,658	0	54	0	54
2106	99,117,955	6,544	6,544	0	34	0	34
2107	105,553,838	4,368	4,368	0	21	0	21
2108	112,410,306	2,885	2,885	0	13	0	13
2109	119,713,980	1,896	1,896	0	8	0	8
2110	127,493,417	1,251	1,251	0	5	0	5
2111	135,779,186	837	837	0	3	0	3
2112	144,603,959	573	573	0	2	0	2
2113	154,002,617	404	404	0	1	0	1
2114	164,012,363	293	293	0	1	0	1
2115	174,672,858	218	218	0	1	0	1
2116	186,026,364	165	165	0	0	0	0
2117	198,117,905	125	125	0	0	0	0
2118	210,995,436	95	95	0	0	0	0
2119	224,710,039	71	71	0	0	0	0
2120	239,316,116	53	53	0	0	0	0
2121	254,871,608	39	39	0	0	0	0
2122	271,438,221	28	28	0	0	0	0