Agenda

ND Teachers' Fund for Retirement Board Meeting

Thursday, October 25, 2012
1:00 pm

Peace Garden Room
State Capitol, Bismarck, ND

1. Call to Order and Approval of Agenda - Pres. Gessner
2. Approval of Minutes of September 25, 2012, Meeting – Pres. Gessner
3. 2012 Valuation Report - Kim Nicholl and Matt Strom, Segal
4. TFFR Funding Policy – Kim Nicholl and Matt Strom, Segal
5. GASB, Moody's, and other national pension issues – Kim Nicholl, Segal
6. Board Resolution – Pres. Gessner

BREAK *- Retirement Coffee Party Honoring Dr. Wayne Sanstead*

7. Legislative Update – Fay Kopp
8. Annual TFFR Ends and Statistics Report – Shelly Schumacher
9. Annual TFFR Program Audit Report – Les Mason
10. RIO Organizational Structure – Fay Kopp
11. Consent Agenda
12. Other Business
13. Adjournment

Next Board Meeting: January 24, 2013

Any person who requires an auxiliary aid or service should contact the Retirement and Investment Office at 701-328-9885 at least three (3) days before the scheduled meeting.

NORTH DAKOTA TEACHERS' FUND FOR RETIREMENT
MINUTES OF THE
SEPTEMBER 27, 2012, BOARD MEETING

BOARD MEMBERS PRESENT:	Mike Gessner, President Clarence Corneil, Trustee Kim Franz, Trustee Lowell Latimer, Vice President Wayne Sanstead, State Superintendent Kelly Schmidt, State Treasurer Bob Toso, Trustee
STAFF PRESENT:	Connie Flanagan, Fiscal & Investment Officer Fay Kopp, Interim Executive Director Darlene Roppel, Retirement Assistant Darren Schulz, Interim CIO Shelly Schumacher, Retirement Program Manager
OTHERS PRESENT:	Greg Burns, NDEA Erica Cermak, NDRTA Edward Erickson, Attorney General's Office Doug Johnson, NDCEL Janilyn Murtha, Attorney General's Office

CALL TO ORDER:

Mr. Mike Gessner, President of the Teachers' Fund for Retirement (TFFR) Board of Trustees, called the board meeting to order at 12:30 p.m. on Thursday, September 27, 2012, at the State Capitol, Peace Garden Room, Bismarck, ND.

THE FOLLOWING MEMBERS WERE PRESENT REPRESENTING A QUORUM: PRESIDENT GESSNER, MR. CORNEIL, MRS. FRANZ, DR. LATIMER, DR. SANSTEAD, TREASURER SCHMIDT, AND MR. TOSO.

APPROVAL OF AGENDA:

The Board considered the meeting agenda.

TREASURER SCHMIDT MOVED AND DR. LATIMER SECONDED TO APPROVE THE AGENDA AS PRESENTED.

AYES: MR. CORNEIL, TREASURER SCHMIDT, DR. SANSTEAD, MR. TOSO, MRS. FRANZ, DR. LATIMER, AND PRESIDENT GESSNER.
NAYS: NONE
MOTION CARRIED.

MINUTES:

The Board considered the minutes of the regular board meeting held July 18, 2012.

MR. TOSO MOVED AND MRS. FRANZ SECONDED TO APPROVE THE MINUTES OF THE REGULAR TFFR BOARD MEETING HELD JULY 18, 2012, AS PRESENTED.

AYES: MR. TOSO, DR. LATIMER, TREASURER SCHMIDT, MR. CORNEIL, DR. SANSTEAD, MRS. FRANZ, AND PRESIDENT GESSNER.
NAYS: NONE
MOTION CARRIED.

EXECUTIVE SESSION:

Ms. Jan Murtha, Attorney General's office (AGO), introduced Mr. Edward Erickson, also from the AGO, and outlined the general structure of the appeal and explained the individual roles of legal counsel.

President Gessner advised the Board that it would go into Executive Session to discuss Member Appeal 2012-2A due to the confidentiality of the retirement records being discussed under NDCC 15-39.1-30. The legal authority under which the Board is moving into Executive Session is NDCC 44-04-19.2. The topic to be discussed in the Executive Session is a benefit appeal. President Gessner reminded board members to limit their discussion during the executive session to the announced topic.

EXECUTIVE SESSION – CONFIDENTIAL MEMBER INFORMATION

Executive session attendees included: Mr. Corneil, Mrs. Franz, President Gessner, Dr. Latimer, Dr. Sanstead, Treasurer Schmidt, Mr. Toso, Ms. Murtha, Mr. Erickson, Mrs. Kopp, Mrs. Schumacher, Mrs. Roppel, and deceased member's spouse.

The executive session began at 12:35 p.m. and ended at 1:59 p.m.

OPEN SESSION

MR. TOSO MOVED AND MR. CORNEIL SECONDED TO DENY APPEAL # 2012-2A.

AYES: TREASURER SCHMIDT, DR. SANSTEAD, MR. CORNEIL, MRS. FRANZ, DR. LATIMER, MR.TOSO, AND PRESIDENT GESSNER.
NAYS: NONE
MOTION CARRIED.

The Board directed staff to provide the deceased member's spouse written notification explaining the reasons for the denial.

The meeting recessed at 2:00 p.m. and reconvened at 2:10 p.m.

ANNUAL INVESTMENT REVIEW:

Mr. Darren Schulz, Interim Chief Investment Officer (CIO), presented the annual review of the investment performance for TFFR. Mr. Schulz provided information on fiscal year highlights, investment climate, asset class historical returns, TFFR investment performance and attribution, TFFR asset allocation, and fiscal year activity.

TFFR's actual net return for fiscal year ending June 30, 2012 was -0.96%.

Investment activities during the fiscal year included:

1. New target allocation and asset allocation framework adopted by TFFR.
2. Fixed income allocation restructured to deliver enhanced risk-adjusted returns via reduced credit exposure.
3. Global equity mandate structure is currently being reviewed and a phased restructuring is pending.
4. Seeking to reduce investment management fees, emphasize current income, adopt a more global perspective with less emphasis on "style boxes", and dampen the sensitivity to equity market volatility.

A copy of the report is on file at the Retirement and Investment Office (RIO).

DR. SANSTEAD MOVED AND MR. TOSO SECONDED TO APPROVE THE ANNUAL INVESTMENT PERFORMANCE REPORT.

AYES: MRS. FRANZ, MR. CORNEIL, MR. TOSO, DR. LATIMER, DR. SANSTEAD, TREASURER SCHMIDT, AND PRESIDENT GESSNER.
NAYS: NONE
MOTION CARRIED.

ANNUAL RIO BUDGET AND EXPENSE REPORT:

Mrs. Connie Flanagan, Fiscal & Investment Officer, provided an overview of RIO's budget and expenses. A copy of the report is on file at RIO.

Mrs. Flanagan reported more than 50% of the budget remains after the first half of the biennium. Mrs. Flanagan also gave a summary of the investment and administrative expenses. After discussion,

DR. LATIMER MOVED AND MRS. FRANZ SECONDED TO APPROVE THE ANNUAL BUDGET AND EXPENSE REPORT.

AYES: DR. LATIMER, MR. CORNEIL, DR. SANSTEAD, MR. TOSO, TREASURER SCHMIDT, MRS. FRANZ, AND PRESIDENT GESSNER.
NAYS: NONE
MOTION CARRIED.

LEGISLATIVE UPDATE:

Mrs. Kopp, Interim Executive Director and Chief Retirement Officer, reported on the interim Legislative Employee Benefits Programs Committee (EBPC) meeting which was held September 25, 2012. The draft technical comments on the bills were reviewed at the meeting. The next meeting will be held October 30, 2012, at which time all of the technical comments will be finalized. The 2012 Valuation report will also be presented by the actuary, Segal Company.

Mrs. Kopp reviewed the draft technical comments on bill 99 which was submitted by the TFFR Board. Upon Segal's recommendation, Mrs. Kopp requested the board approve an amendment to bill 99 which would incorporate Internal Revenue Code language to clarify that increases in maximum benefit limits under section 415 would apply to former employees as well as current employees.

TREASURER SCHMIDT MOVED AND DR. SANSTEAD SECONDED TO APPROVE THE PROPOSED AMENDMENT TO BILL NO. 13.0099.02000.

AYES: DR. SANSTEAD, MR. TOSO, MR. CORNEIL, DR. LATIMER, MRS. FRANZ, TREASURER SCHMIDT, AND PRESIDENT GESSNER.
NAYS: NONE
MOTION CARRIED.

Mrs. Kopp reviewed the draft technical comments on bill 43, which was introduced by Representative Louser. The bill would modify the expiration of the increase in required contributions for both employers and members of TFFR until the fund reaches 100% funded ratio, not 90% as provided in current law. After discussion,

DR. LATIMER MOVED AND DR. SANSTEAD SECONDED TO SUPPORT THE BILL.

AYES: MRS. FRANZ, DR. LATIMER, TREASURER SCHMIDT, DR. SANSTEAD, MR. CORNEIL, AND PRESIDENT GESSNER.
NAYS: MR. TOSO
MOTION CARRIED.

STRUCTURE OF RETIREMENT AND INVESTMENT OFFICE:

President Gessner opened discussion on the structure of the Retirement and Investment office. The State Investment Board (SIB) is requesting input on the organizational structure of RIO. Mrs. Kopp reviewed the North Dakota Century Code (NDCC) statutes that govern the RIO, TFFR and SIB. The Board discussed the interim agency organizational structure, Executive Director/CIO position, board governance, and potential future changes in the TFFR and SIB programs.

After a lengthy discussion, **MR. TOSO MOVED** and **TREASURER SCHMIDT SECONDED** the following substitute motion:

TFFR SUPPORTS DISCUSSION RELATING TO THE POSITION OF EXECUTIVE DIRECTOR-CIO IN ITS CURRENT INTERIM FORM.

AYES: DR. LATIMER, MR. CORNEIL, DR. SANSTEAD, MR. TOSO, TREASURER SCHMIDT, MRS. FRANZ, AND PRESIDENT GESSNER.
NAYS: NONE
MOTION CARRIED.

ADJOURNMENT:

The next regular TFFR board meeting is scheduled for October 25, 2012.

With no further business to come before the Board, President Gessner adjourned the meeting at 4:20 p.m.

Respectfully Submitted:

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Mr. Mike Gessner, President
Teachers’ Fund for Retirement Board

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Darlene Roppel
Reporting Secretary

MEMORANDUM

TO: TFFR Board

FROM: Fay Kopp

DATE: October 18, 2012

SUBJ: 2012 Valuation Report

TFFR actuarial consultants, Kim Nicholl and Matt Strom, Segal Company, will be at the October TFFR Board meeting to present the 2012 valuation report. Enclosed is a copy of the report.

Please review the report and plan to discuss at the meeting.

Enclosure

North Dakota Teachers' Fund for Retirement

Actuarial Valuation and Review as of July 1, 2012

Doc #5294422

SEGAL

SEGAL

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October 17, 2012

Board of Trustees
North Dakota Teachers' Fund for Retirement
1930 Burnt Boat Drive P.O. Box 7100
Bismarck, ND 58507-7100

Dear Trustees:

We certify that the information contained in this report is accurate and fairly presents the actuarial position of the North Dakota Teachers' Fund for Retirement (TFFR) as of July 1, 2012.

All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion the results presented also comply with the North Dakota Century Code, and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board (GASB). The undersigned are independent actuaries. All are Fellows of the Society of Actuaries, Enrolled Actuaries, and Members of the American Academy of Actuaries, and all are experienced in performing valuations for large public retirement systems. They all meet the Qualification Standards of the American Academy of Actuaries.

ACTUARIAL VALUATION

The primary purposes of the valuation report are to determine the adequacy of the current employer contribution rate, to describe the current financial condition of TFFR, and to analyze changes in TFFR's financial condition. In addition, the report provides information required by TFFR in connection with Governmental Accounting Standards Board Statement No. 25 (GASB 25) and it provides various summaries of the data. Valuations are prepared annually, as of July 1 of each year, the first day of TFFR's plan and fiscal year.

FINANCING OBJECTIVES

The member and employer contribution rates are established by statute. The member rate was increased from 7.75% to 9.75% effective July 1, 2012, and is scheduled to increase to 11.75% effective July 1, 2014. The employer rate was increased from 8.75% to 10.75% effective July 1, 2012, and is scheduled to increase to 12.75% effective July 1, 2014. The 11.75% member contribution rate and 12.75% employer contribution rate will remain in effect until TFFR is 90% funded on an actuarial basis. At that point, the employer and member contribution rates will revert to 7.75%.

The rates are intended to be sufficient to pay TFFR's normal cost and to amortize TFFR's unfunded actuarial accrued liability (UAAL) over a period of 30 years from the valuation date, although at any given time the statutory rates may be insufficient. A 30-year period is the maximum amortization period allowed by GASB 25 in computing the Annual Required Contribution.

PROGRESS TOWARD REALIZATION OF FINANCING OBJECTIVES

In order to determine the adequacy of the 10.75% statutory employer contribution rate, it is compared to the GASB 25 Annual Required Contribution (ARC). The ARC is equal to the sum of (a) the employer normal cost rate and (b) the level percentage of pay required to amortize the UAAL over a 30-year period. For this calculation, payroll is assumed to increase 3.25% per year. As of July 1, 2012, the ARC is 13.02%, compared to 13.16% last year. This is greater than the 10.75% rate currently required by law. The shortfall (the negative margin) between the rate mandated by law (10.75%) and the rate necessary to fund the UAAL in 30 years is 2.27%.

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) decreased from last year. The funded ratio at July 1, 2011 was 66.3%, while it is 60.9% as of July 1, 2012. Based on market values rather than actuarial values of assets, the funded ratio decreased to 57.6%, compared to 62.8% last year.

The plan has a net asset loss of $94 million from previous years that has not yet been recognized in the actuarial value of assets because of the five-year smoothing. This unrecognized asset loss is due to large market losses during FY 2009 and FY 2012. As these losses are recognized over the next four years, the ARC is expected to continue to increase and the funded ratio is expected to continue decreasing, assuming the plan earns 8.00% in the future. However, the scheduled increases in the employer and member contribution rates are projected to improve the funded status and reduce the ARC.

REPORTING CONSEQUENCES

TFFR is required to report in its Comprehensive Annual Financial Report (CAFR) for the current fiscal year ending June 30, 2012 that actual contributions received in FY 2012 were less than the ARC. The FY 2012 8.75% statutory rate was 66.5% of the 13.16% ARC determined by the last valuation. Next year, the CAFR for FY 2013 will show that the 10.75% statutory rate is 82.6% of the 13.02% ARC. There are no other accounting consequences for the state or the other school districts that sponsor TFFR, since it is a cost-sharing, multiple-employer retirement system.

BENEFIT PROVISIONS

The actuarial valuation reflects the benefit and contribution provisions set forth in the North Dakota Century Code. These have not changed from the prior valuation.

ASSUMPTIONS AND METHODS

Actuarial assumptions and methods are set by the Board of Trustees, based upon recommendations made by the plan's actuary. On January 21, 2010, the Board adopted new assumptions, effective for the July 1, 2010 valuation. These actuarial assumptions and methods comply with the parameters for disclosure in GASB 25. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of the Plan.

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates, and funding periods.

DATA

Member data for retired, active, and inactive participants was supplied as of July 1, 2012, by the staff of the Retirement and Investment Office (RIO). We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data. Asset information was also supplied by the RIO staff.

Sincerely,

THE SEGAL COMPANY

By: Kim Nicholl

Kim Nicholl, FSA, MAAA, EA
Senior Vice President and Actuary

Matthew A. Strom

Matthew A. Strom, FSA, MAAA, EA
Consulting Actuary

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SECTION 1

VALUATION SUMMARY

SECTION 2

VALUATION RESULTS

SECTION 3

SUPPLEMENTAL INFORMATION

SECTION 4

REPORTING INFORMATION

Significant Issues in the Valuation Year

1. The employer statutory contribution rate for the fiscal year beginning July 1, 2012 under the North Dakota Century Code is equal to 10.75% of payroll for employers. Compared to the annual required contribution of 13.02% of payroll, the contribution deficiency is 2.27% of payroll as of July 1, 2012. Each year there is a contribution deficiency leads to an increased deficiency in all future years.
2. The 2011 legislative changes included increases to the statutory contribution rates: 2% each for employer and member effective July 1, 2012 and an additional 2% each for employer and member effective July 1, 2014. Employer and member contributions will be reset to 7.75% each once the Fund reaches a 90% funded ratio, measured using the actuarial value of assets. When including the additional total 4% increase effective July 1, 2014 in the statutory contribution rates and comparing that to the annual required contribution, there would no longer be a contribution deficiency.
3. The funding ratio based on the actuarial value of assets over the actuarial accrued liability as of July 1, 2012 is 60.9%, compared to 66.3% as of July 1, 2011. This ratio is a measure of funding status, its history is a measure of funding progress, and is the ratio required to be reported under GASB 25. The total 8% increase in the statutory contribution rates is expected to improve the funding ratio of the plan over time.
4. For the year ended June 30, 2012, Segal has determined that the asset return on a market value basis was -1.4%. Coincidentally, after gradual recognition of investment gains and losses under the actuarial smoothing method, the actuarial rate of return was also -1.4%. This represents an experience loss when compared to the assumed rate of 8%. As of June 30, 2012, the actuarial value of assets ($1.748 billion) represented 105.7% of the market value ($1.654 billion).
5. The portion of deferred investment gains and losses recognized during the calculation of the July 1, 2012 actuarial value of assets contributed to a loss of $169,448,005. Conversely, the demographic and liability experience resulted in a $9,785,010 gain.
6. As indicated on page 6 of this report, the total investment loss not yet recognized as of June 30, 2012 is $93,931,112. This unrecognized loss will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent they are not offset by recognition of gains derived from future experience. This means that earning the assumed rate of investment return of 8% per year (net of investment expenses) on a market value basis will result in investment losses on the actuarial value of assets in the next few years.
7. As mentioned above, the current method used to determine the actuarial value of assets yields an amount that is 105.7% of the market value of assets as of June 30, 2012. Guidelines in Actuarial Standard of Practice No. 44 (Selection and Use of Asset Valuation Methods for Pension Valuations) recommend that asset values fall within a reasonable range around the corresponding market value. The actuarial asset method complies with these guidelines.

8. This actuarial valuation report as of June 30, 2012 is based on financial data as of that date. Changes in the value of assets subsequent to that date are not reflected. Declines in asset values will increase the cost of the plan, while increases in asset values (in excess of expected) will decrease the cost of the plan.
9. The Fund's cash flow (contributions minus benefit payments, refunds, and expenses) as a percentage of the market value of assets is -3.1% as of June 30, 2012, compared to -2.7% as of June 30, 2011. The scheduled increases in the employer and member contribution rates will improve the cash flow percentage, assuming all other experience emerges as expected.

Summary of Key Valuation Results

	2012	2011
Demographic Data for Plan Year Beginning July 1:		
Number of retirees and beneficiaries	7,151	6,933
Number of inactive vested members	1,483	1,463
Number of inactive non-vested members	468	407
Number of active members	10,014	10,004
Total payroll supplied by System	$505,285,069	$488,764,292
Statutory Contributions (% of Payroll) for Plan Year Beginning July 1:		
Employer	10.75%	8.75%
Member	9.75%	7.75%
Assets:		
Market value	$1,654,149,659	$1,726,179,317
Actuarial value	1,748,080,771	1,822,598,871
Return on market value as determined by Segal	-1.4%	23.5%
Return on actuarial value	-1.4%	1.4%
Ratio of actuarial value to market value	105.7%	105.6%
Net cash flow % relative to market value	-3.1%	-2.7%
Actuarial Information:		
Normal cost %	9.83%	9.80%
Normal cost	$52,667,248	$50,760,259
Actuarial accrued liability	2,871,870,286	2,749,751,755
Unfunded actuarial accrued liability	1,123,789,515	927,152,884
Funded ratio	60.9%	66.3%
Effective amortization period*	51 years	Infinite
GASB 25 Information:		
Annual required employer contribution rate for year beginning July 1	13.02%	13.16%
Margin/(Deficit)	-2.27%	-4.41%
Gains/(Losses):		
Asset experience	-$169,448,005	-$120,206,192
Liability experience	9,785,010	-6,164,197
Benefit changes	0	24,298,740
Assumption/method changes	0	0
Total Gain/(Loss)	-$159,662,995	-$102,071,649

**Does not reflect increases in member and employer contribution rates effective in future years (July 1, 2012 and 2014 for 2011 valuation year and July 1, 2014 for 2012 valuation year).*

A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active participants, inactive participants, retirees, and beneficiaries.

This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

A historical perspective of how the participant population has changed over the past ten valuations can be seen in this chart.

CHART 1

Member Population: 2003 – 2012

Year Ended June 30	Active Members	Inactive Vested Members	Inactive Non-vested Members	Retirees and Beneficiaries	Ratio of Actives to Retirees and Beneficiaries
2003	9,916	1,276	233	5,177	1.92
2004	9,826	1,346	175	5,373	1.83
2005	9,801	1,377	168	5,586	1.75
2006	9,585	1,409	143	5,893	1.63
2007	9,599	1,439	142	6,077	1.58
2008	9,561	1,459	229	6,317	1.51
2009	9,707	1,490	292	6,466	1.50
2010	9,907	1,472	331	6,672	1.48
2011	10,004	1,463	407	6,933	1.44
2012	10,014	1,483	468	7,151	1.40

Active Members

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 10,014 active members with an average age of 43.7 and 13.7 average years of service. The 10,004 active members in the prior valuation had an average age of 43.9 and 13.8 average years of service.

Inactive Members

In this year's valuation, there were 1,483 participants with a vested right to a deferred or immediate vested benefit.

In addition, there were 468 participants entitled to a return of their employee contributions.

These graphs show a distribution of active members by age and by years of service.

CHART 2

Distribution of Active Members by Age as of June 30, 2012

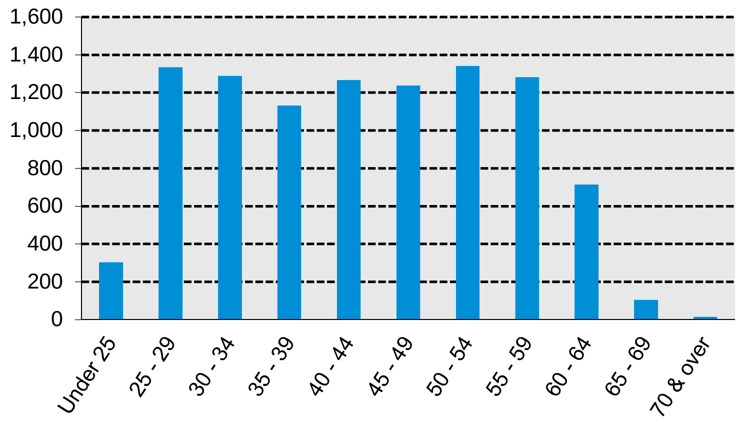
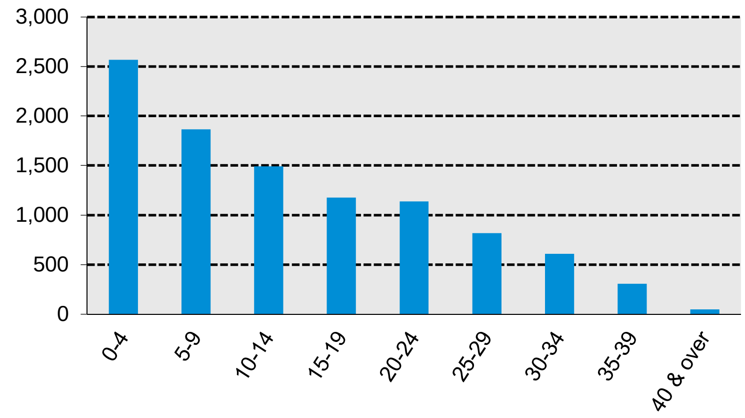


CHART 3

Distribution of Active Members by Years of Service as of June 30, 2012

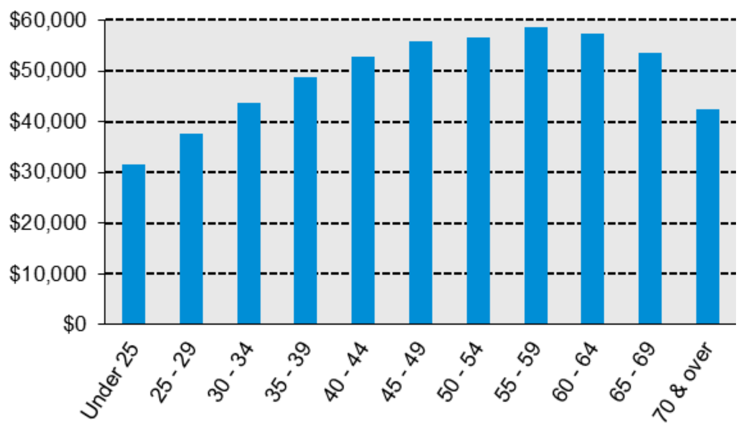


Distribution of Active Members by Age and Average Compensation

In this year's valuation, there were 10,014 active members with an average compensation of $50,458. The 10,004 active members in the prior valuation had an average compensation of $48,857.

CHART 4

Distribution of Active Members by Age and Average Compensation as of June 30, 2012



Retirees and Beneficiaries

As of June 30, 2012, 6,568 retirees and 583 beneficiaries were receiving total monthly benefits of $11,902,594. For comparison, in the previous valuation, there were 6,372 retirees and 561 beneficiaries receiving monthly benefits of $11,134,239.

These graphs show a distribution of the current retirees and beneficiaries based on their monthly amount and age, by type of pension.

CHART 5

Distribution of Retirees and Beneficiaries by Type and by Monthly Amount as of June 30, 2012

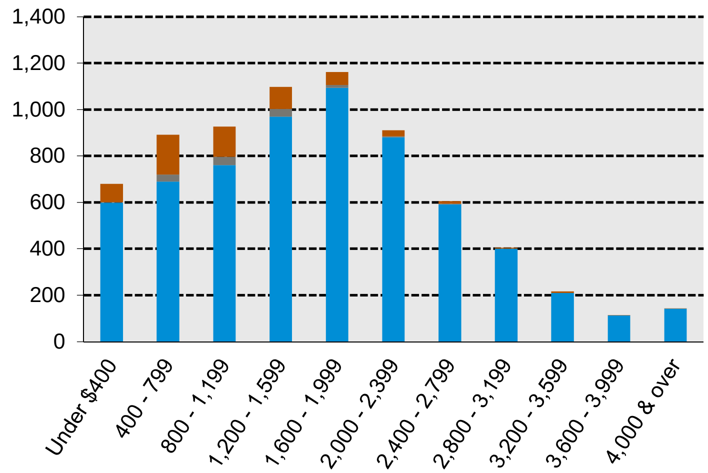
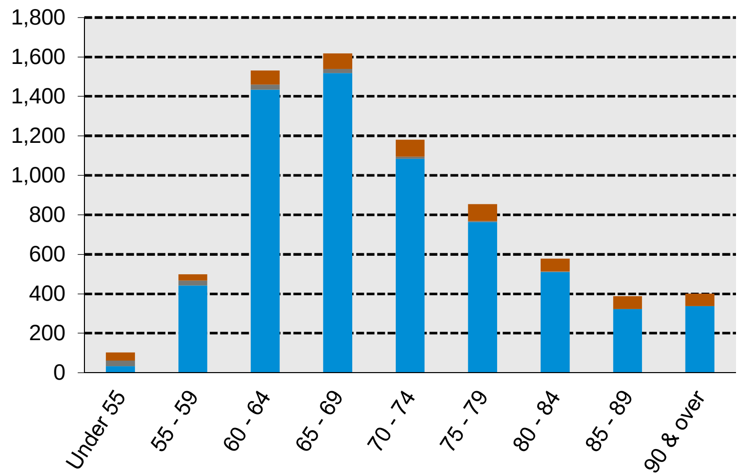


CHART 6

Distribution of Retirees and Beneficiaries by Type and by Age as of June 30, 2012



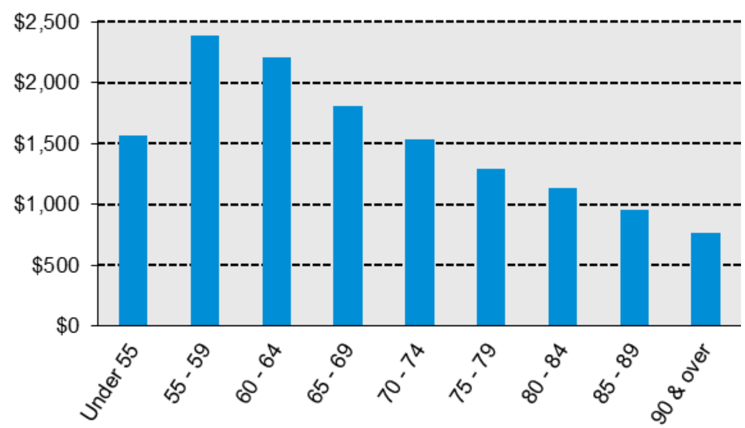
■ Beneficiary
■ Disabled Retiree
■ Retiree

Distribution of Retirees and Beneficiaries by Age and Average Monthly Benefit Amount

As of June 30, 2012, the average monthly benefit amount among 6,568 retirees and 583 beneficiaries was $1,664. In the previous valuation, the average monthly benefit amount among 6,372 retirees and 561 beneficiaries was $1,606.

CHART 7

Distribution of Retirees and Beneficiaries by Age and Average Monthly Amount as of June 30, 2012



B. FINANCIAL INFORMATION

It is desirable to have level and predictable plan costs from one year to the next. For this reason, TFFR's Board utilizes an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 8

Determination of Actuarial Value of Assets for Years Ended June 30, 2012 and June 30, 2011

				2012		2011	
1.	Market value of assets available for benefits				$1,654,149,659		$1,726,179,317
2.	Calculation of unrecognized return*		Original Amount**	% Not Recognized		% Not Recognized	
	(a)	Year ended June 30, 2012	-$159,245,999	80%	-$127,396,799		--
	(b)	Year ended June 30, 2011	219,705,461	60%	131,823,277	80%	$175,764,369
	(c)	Year ended June 30, 2010	74,336,281	40%	29,734,512	60%	44,601,768
	(d)	Year ended June 30, 2009	-640,460,510	20%	-128,092,102	40%	-256,184,204
	(e)	Year ended June 30, 2008	-303,007,436			20%	-60,601,487
	(f)	Total unrecognized return			-$93,931,112		-$96,419,554
3.	Actuarial value of assets (Current Assets): (1) – (2f)				$1,748,080,771		$1,822,598,871
4.	Actuarial value as a percent of market value: (3) ÷ (1)				105.7%		105.6%

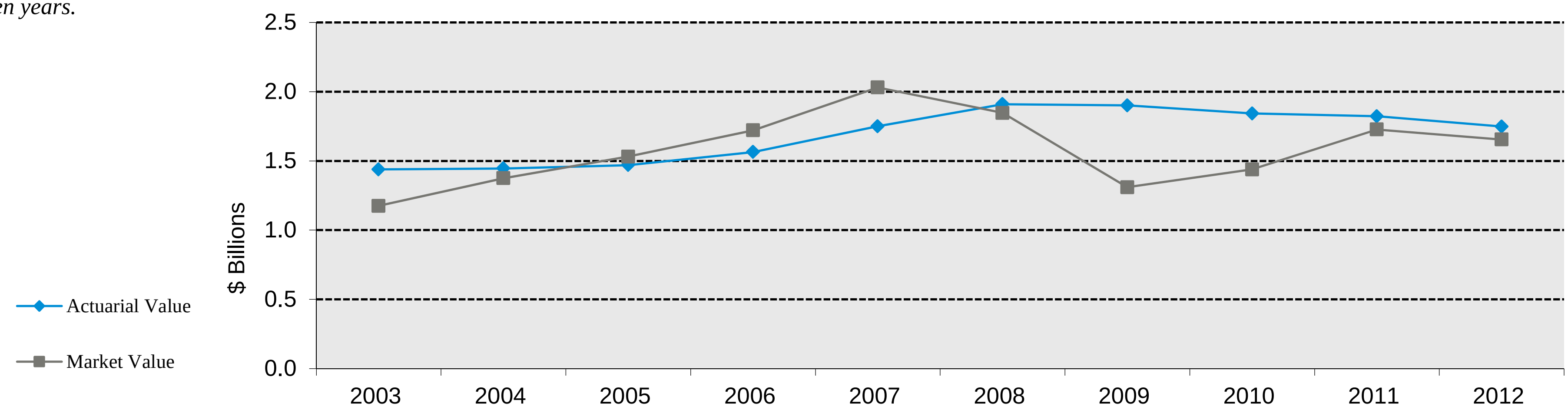
* *Recognition at 20% per year over 5 years*
***Total return minus expected return on market value*

Both the actuarial value and market value of assets are representations of the TFFR's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the TFFR's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows the change in the actuarial value of assets versus the market value over the past ten years.

CHART 9

Actuarial Value of Assets vs. Market Value of Assets as of June 30, 2003 – 2012



Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the TFFR's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 8.00%. The actual rate of return on an actuarial basis for the Plan Year ended June 30, 2012 was -1.42%.

Since the actual return for the year was less than the assumed return, the TFFR experienced an actuarial loss during the year ended June 30, 2012 with regard to its investments.

This chart shows the gain/(loss) due to investment experience.

CHART 10

Actuarial Value Investment Experience for Year Ended June 30, 2012

1.	Actual return	-$25,596,942
2.	Average value of assets	1,798,138,292
3.	Actual rate of return: (1) ÷ (2)	-1.42%
4.	Assumed rate of return	8.00%
5.	Expected return: (2) x (4)	$143,851,063
6.	Actuarial gain/(loss): (1) – (5)	-$169,448,005

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the last twenty years, including five-year, ten-year, fifteen-year and twenty-year averages.

Chart 11
Investment Return

Year Ended June 30	Market Value	Actuarial Value
1993	14.7%	8.1%
1994	1.2%	7.0%
1995	13.6%	9.1%
1996	15.6%	11.3%
1997	18.5%	12.6%
1998	13.2%	12.6%
1999	11.5%	13.5%
2000	11.6%	13.3%
2001	-7.6%	8.6%
2002	-8.6%	3.0%
2003	2.1%	0.6%
2004	18.9%	1.9%
2005	13.3%	3.3%
2006	14.6%	8.5%
2007	20.4%	14.4%
2008	-7.0%	11.6%
2009	-27.0%	1.7%
2010	13.9%	-0.5%
2011	23.5%*	1.4%
2012	-1.4%*	-1.4%
Average Returns		
Last 5 years:	-1.8%	2.5%
Last 10 years:	5.5%	4.0%
Last 15 years:	5.2%	6.0%
Last 20 years:	7.0%	6.9%

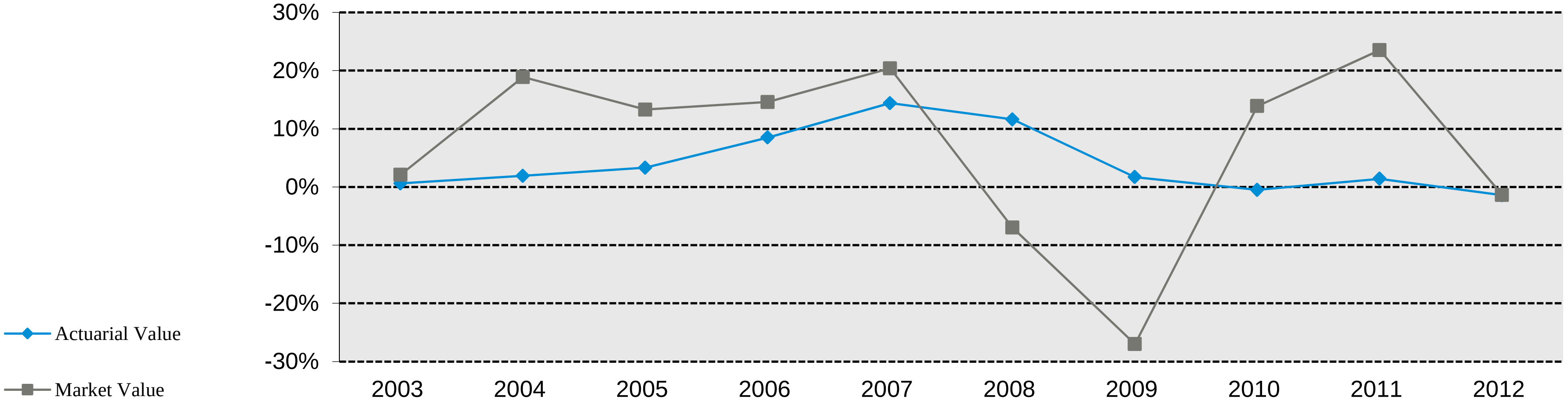
** As determined by Segal.*

Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

This chart illustrates how this leveling effect has actually worked over the years 2003 - 2012.

CHART 12

Market and Actuarial Rates of Return for Years Ended June 30, 2003 - 2012



Cash Flow

Cash flow is the difference between contributions and benefit payments, refunds, and expenses. Negative cash flow indicates that the payments made from the Fund exceed contributions made to the Fund.

The scheduled increases in the employer and member contribution rates will improve the cash flow percentage, assuming all other experience emerges as expected.

Chart 13

History of Cash Flow

Year Ending June 30,	Contributions[1]	Disbursements or Expenditures: Benefit Payments	Refunds	Administrative Expenses	Total	Net Cash Flow for the Year[2]	Market Value of Assets	Net Cash Flow as Percent of Market Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2003	$60,210,068	($72,044,977)	($1,729,764)	($1,056,611)	($74,831,352)	($14,621,284)	$1,175,258,478	-1.2%
2004	63,655,362	(77,153,054)	(5,800,100)	(1,513,788)	(84,466,942)	(20,811,580)	1,374,679,677	-1.5%
2005	64,072,881	(84,498,130)	(2,733,407)	(2,086,849)	(89,318,386)	(25,245,505)	1,530,194,427	-1.6%
2006	65,577,828	(91,818,092)	(2,697,308)	(1,484,591)	(95,999,991)	(30,422,163)	1,720,324,948	-1.8%
2007	66,362,099	(99,737,905)	(3,328,931)	(1,592,060)	(104,658,896)	(38,296,797)	2,029,777,412	-1.9%
2008	70,573,389	(106,456,334)	(5,500,476)	(1,639,521)	(113,596,331)	(43,022,942)	1,846,113,411	-2.3%
2009	74,380,980	(113,966,079)	(2,362,251)	(1,707,506)	(118,035,836)	(43,654,856)	1,309,716,730	-3.3%
2010	78,105,830	(124,472,154)	(2,557,240)	(1,902,796)	(128,932,190)	(50,826,360)	1,437,949,843	-3.5%
2011	84,923,250	(127,435,564)	(2,210,738)	(2,003,705)	(131,650,007)	(46,726,757)	1,726,179,317	-2.7%
2012	88,808,604	(135,250,568)	(2,479,194)	(1,596,976)	(139,326,738)	(50,518,134)	1,654,149,659	-3.1%

[1] Column (2) includes employee and employer contributions, as well as any purchased service credits during the year.
[2] Column (7) = Column (2) + Column (6).

Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include, but are not limited to:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and
- salary increases different than assumed

The net gain from this other experience for the year ended June 30, 2012 amounted to $9,785,010, which is approximately 0.3% of the actuarial accrued liability.

The chart shows elements of the experience gain/(loss) for the most recent year.

CHART 14

Experience Due to Changes in Demographics for Year Ended June 30, 2012

1.	Turnover	-$3,574,553
2.	Retirement	6,743,557
3.	Deaths among retired members and beneficiaries	-1,733,313
4.	Salary/service increase for continuing actives	7,558,733
5.	Other decrements	3,818,113
6.	Miscellaneous	-3,027,527
7.	Total	$9,785,010

C. DEVELOPMENT OF EMPLOYER COSTS

The amount of Annual Required Contribution as defined by GASB is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the Annual Required Contribution of 13.02% of payroll.

GASB allows that the unfunded actuarial accrued liability be amortized over 30 years. This period is reset to 30 each year.

The chart compares this valuation's recommended contribution with the prior valuation.

CHART 15

Annual Required Contribution

	Year Beginning July 1			
	2012		2011	
	Amount	% of Compensation	Amount	% of Compensation
1. Total normal contribution rate	$52,667,248	9.83%	$50,760,259	9.80%
2. Less: member contribution rate	52,247,477	-9.75%	40,160,208	-7.75%
3. Employer normal contribution rate	$419,771	0.08%	$10,600,051	2.05%
4. Employer normal contribution rate, adjusted for timing*	436,131	0.08%	11,013,197	2.12%
5. Actuarial accrued liability	2,871,870,286		2,749,751,755	
6. Actuarial value of assets	1,748,080,771		1,822,598,871	
7. Unfunded actuarial accrued liability: (5) - (6)	1,123,789,515		927,152,884	
8. Payment on unfunded actuarial accrued liability, adjusted for timing*	69,339,912	12.94%	57,207,064	11.04%
9. Annual Required Contribution (4) + (8)	$69,776,043	13.02%	$68,220,261	13.16%
10. Payroll supplied by System	$505,285,069		$488,764,292	
11. Payroll adjusted for one year's pay increase	$535,871,564		$518,196,234	

** Contributions are assumed to be paid at the middle of every month.*

The annual required contribution as of July 1, 2012 is based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. It includes all changes affecting future costs, adopted benefit changes, actuarial gains and losses, and changes in the actuarial assumptions.

Reconciliation of Annual Required Contribution

The chart below details the changes in the annual required contribution from the prior valuation to the current year's valuation.

The chart reconciles the annual required contribution from the prior valuation to the amount determined in this valuation.

CHART 16

Reconciliation of GASB Annual Required Contribution from July 1, 2011 to July 1, 2012

Analysis of Change in GASB Annual Required Contribution		July 1, 2012		July 1, 2011
1. Prior Valuation		13.16%		12.79%
2. Increases/(decreases) due to:				
a. Open amortization	-0.21%		-0.18%	
b. Change in covered payroll and normal cost	0.02%		-0.61%	
c. Employer contributions received at 8.75% rather than 13.16% for FY2012 or 12.79% for FY 2011	0.26%		0.23%	
d. Liability experience	-0.11%		0.07%	
e. Investment experience	1.98%		1.46%	
f. Legislative changes	-2.08%		-0.60%	
g. Total		-0.14%		0.37%
3. Current valuation (1. + 2.g.)		13.02%		13.16%
4. Statutory employer contribution rate		10.75%		8.75%
5. Margin available [contribution sufficiency/(deficiency)] (4. – 3.)		-2.27%		-4.41%

D. INFORMATION REQUIRED BY THE GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to the GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded within the range of GASB reporting requirements. Chart 17 below presents a graphical representation of this information for TFFR.

The other critical piece of information regarding TFFR's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the Plan as calculated under GASB standards. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

Although the GASB requires that the actuarial value of assets be used to determine the funded ratio, Chart 18 shows the funded ratio calculated using both the actuarial value of assets and the market value of assets.

The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits III, IV, and VI.

These graphs show key GASB factors.

CHART 17

Required Versus Actual Employer Contributions, Years Ended June 30

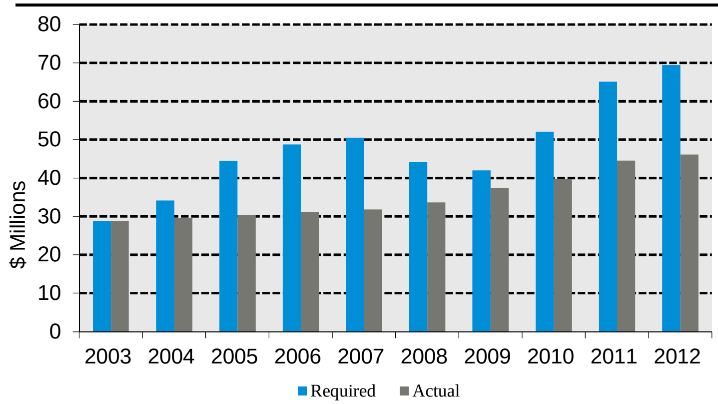
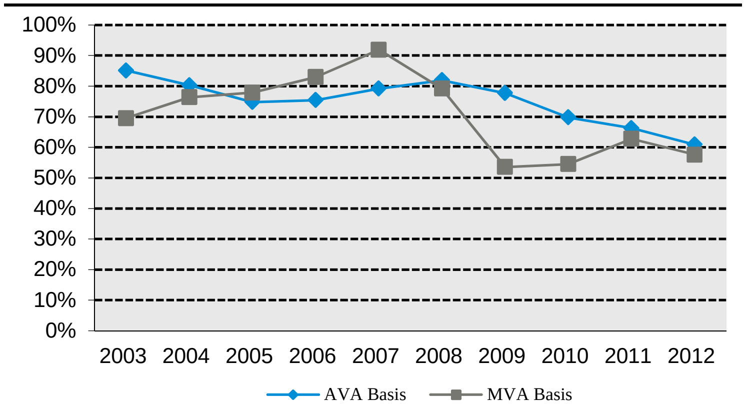


CHART 18

Funded Ratio, Years Ended June 30



Membership Data

Membership data was provided on electronic files sent by the RIO staff. Data for active members includes sex, birth date, service, salary for the prior fiscal year, and accumulated contributions. Data for inactive members was similar, but also includes the members' unreduced benefit. For retired members, data includes status (service retiree, disabled retiree or beneficiary), sex, birth date, pension amount, date of retirement, form of payment, and beneficiary sex and birth date if applicable.

While not verifying the correctness of the data at the source, we performed various tests to ensure the internal consistency of the data and its overall reasonableness.

Membership statistics are summarized in Exhibit A. Exhibit B summarizes certain active member data, and the age/service distribution of active members among tiers is shown in Exhibit C. Exhibit D-1 and Exhibit D-2 show the distribution of retirees by option and by benefit amount. Exhibit E shows a reconciliation of the member data from last year’s valuation to this year’s valuation.

The number of active members increased by 0.1% since last year, from 10,004 to 10,014. Note that normally the actual number of members employed during the year will be somewhat higher than the valuation count, since the July 1 count excludes most June and July retirees but does not include new teachers joining the system for the next school year.

Total payroll increased 3.4% since last year. For all comparative purposes, payroll is the amount supplied by the RIO staff (i.e., the 2011-2012 member pay), annualized. However, this figure is increased by one year’s assumed pay increase to determine the member’s rate of pay (and thus, total projected payroll) at July 1, 2012. Pay is assumed to change only at the beginning of a school/fiscal year.

Average pay increased by 3.3%, from $48,857 to $50,458. This includes the impact of replacing more highly paid members who retire with new teachers. The average increase in salary for the 9,259 continuing members (members active in both this valuation and the preceding valuation) was 5.4%.

The average age of active members decreased from 43.9 years to 43.7 years, and their average service decreased from 13.8 years to 13.7 years.

The table below shows additional information about the active membership this year and last year. Tier 1 Grandfathered members are those who will have 65 points as of June 30, 2013, or are at least age 55 and vested. Current Tier 1 members that do not meet these criteria are considered Tier 1 Non-grandfathered members. Tier 2 members are those hired or rehired after June 30, 2008. All new members in future years will enter as Tier 2 members, so the number will increase over time. The Tier 1 Grandfathered and Non-grandfathered population will decrease each year as members leave due to retirement, termination, death, and disability.

Active Statistics		
	July 1, 2012	**July 1, 2011**
Plan Eligibility*		
a. Tier 1 Grandfathered	4,028	4,405
b. Tier 1 Non-grandfathered	3,592	3,680
c. Tier 2	2,394	1,919
d. Total	10,014	10,004
Benefit Eligibility		
a. Non-Vested	2,444	1,991
b. Vested	5,476	5,830
c. Early Retirement	973	945
d. Normal Retirement	1,121	1,134
e. Total	10,014	10,004

* *Number of Tier 1 Grandfathered and Non-grandfathered members is estimated based on the June 30, 2012 census data and eligibility requirements specified above.*

In addition, this table shows the number of members who are non-vested, those who are vested but not eligible for retirement, those who are eligible only for an early retirement (reduced) benefit, and those eligible for a normal (unreduced) benefit. As of the valuation date, 2,094 members were eligible for either reduced or unreduced retirement, an increase over last year's figure of 2,079.

EXHIBIT A
Member Data

Member Data	July 1, 2012	July 1, 2011
1. Active members		
a. Males	2,578	2,590
b. Females	7,436	7,414
c. Total members	10,014	10,004
d. Total payroll supplied, annualized	$505,285,069	$488,764,292
e. Average salary	$50,458	$48,857
f. Average age	43.7	43.9
g. Average service	13.7	13.8
h. Total contributions with interest	$647,935,914	$626,002,547
i. Average contribution with interest	$64,703	$62,575
2. Vested inactive members		
a. Number	1,483	1,463
b. Total annual deferred benefits	$9,268,229	$8,984,442
c. Average annual deferred benefit	$6,250	$6,141
d. Average age	49.0	48.7
3. Non-vested inactive members		
a. Number	468	407
b. Employee contributions with interest due	$1,540,967	$1,178,287
c. Average refund due	$3,293	$2,895
d. Average age	38.5	38.6
4. Service retirees		
a. Number	6,448	6,252
b. Total annual benefits	$133,723,928	$124,977,333
c. Average annual benefit	$20,739	$19,990
d. Average age	70.8	70.7
5. Disabled retirees		
a. Number	120	120
b. Total annual benefits	$1,634,376	$1,586,544
c. Average annual benefit	$13,620	$13,221
d. Average age	61.2	61.1
6. Beneficiaries		
a. Number	583	561
b. Total annual benefits	$7,472,820	$7,046,988
c. Average annual benefit	$12,818	$12,561
d. Average age	73.2	72.8

EXHIBIT B
Historical Summary of Active Member Data

	Active Members		Covered Payroll		Average Salary			
Year Ending June 30,	Number	Percent Increase/ (Decrease)	Amount in $ Millions	Percent Increase/ (Decrease)	$ Amount	Percent Increase/ (Decrease)	Average Age	Average Service
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1993	9,808	1.0%	$260.4	3.8%	$26,549	5.5%	42.2	13.2
1994	9,653	-1.6%	262.4	0.8%	27,187	5.2%	42.4	13.3
1995	9,663	0.1%	268.7	2.4%	27,803	2.3%	42.6	13.4
1996	9,797	1.4%	281.2	4.7%	28,708	3.3%	42.9	13.6
1997	10,010	2.2%	294.1	4.6%	29,382	2.3%	43.4	14.0
1998	9,896	-1.1%	298.4	1.5%	30,156	2.6%	43.5	14.0
1999	10,046	1.5%	314.6	5.4%	31,318	3.9%	44.0	14.4
2000	10,025	-0.2%	323.0	2.7%	32,223	2.9%	43.9	14.1
2001	10,239	2.1%	342.2	5.9%	33,421	3.7%	44.4	14.4
2002	9,931	-3.0%	348.1	1.7%	35,052	4.9%	44.5	14.4
2003	9,916	-0.2%	367.9	5.7%	37,105	5.9%	44.8	14.6
2004	9,826	-0.9%	376.5	2.3%	38,321	3.3%	44.9	14.7
2005	9,801	-0.3%	386.6	2.7%	39,447	2.9%	44.9	14.7
2006	9,585	-2.2%	390.1	0.9%	40,703	3.2%	44.8	14.6
2007	9,599	0.1%	401.3	2.9%	41,810	2.7%	44.7	14.5
2008	9,561	-0.4%	417.7	4.1%	43,684	4.5%	44.6	14.4
2009	9,707	1.5%	440.0	5.3%	45,327	3.8%	44.5	14.3
2010	9,907	2.1%	465.0	5.7%	46,937	3.6%	44.2	14.0
2011	10,004	1.0%	488.8	5.1%	48,857	4.1%	43.9	13.8
2012	10,014	0.1%	505.3	3.4%	50,458	3.3%	43.7	13.7

EXHIBIT C

Members in Active Service as of June 30, 2012
By Age, Years of Service, and Average Compensation

		Years of Credited Service								
Age	**Total**	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & over**
Under 25	302	302	- -	- -	- -	- -	- -	- -	- -	- -
	$31,521	$31,521	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	1,334	1,061	273	- -	- -	- -	- -	- -	- -	- -
	37,738	36,711	$41,731	- -	- -	- -	- -	- -	- -	- -
30 - 34	1,288	432	701	155	- -	- -	- -	- -	- -	- -
	43,732	38,130	45,859	$49,728	- -	- -	- -	- -	- -	- -
35 - 39	1,132	235	292	495	110	- -	- -	- -	- -	- -
	48,788	38,923	47,995	52,596	$54,832	- -	- -	- -	- -	- -
40 - 44	1,266	182	209	280	456	139	- -	- -	- -	- -
	52,829	40,319	47,989	53,557	57,431	$59,920	- -	- -	- -	- -
45 - 49	1,238	108	134	188	222	425	158	3	- -	- -
	55,905	39,895	48,195	52,924	57,509	60,301	$62,942	$51,573	- -	- -
50 - 54	1,341	119	102	150	151	241	367	209	2	- -
	56,538	41,081	46,947	51,760	56,325	60,325	61,417	60,597	$64,284	- -
55 - 59	1,281	59	93	128	144	205	188	317	147	- -
	58,490	43,386	47,933	50,883	57,642	60,278	61,881	63,579	60,883	- -
60 - 64	713	49	53	75	77	110	96	72	143	38
	57,257	36,567	49,369	53,284	55,051	57,498	60,301	61,257	63,658	$67,190
65 - 69	104	14	6	20	16	14	7	5	13	9
	53,585	31,708	52,432	47,607	55,339	60,611	54,651	68,212	64,895	62,332
70 & over	15	8	1	- -	- -	2	1	2	- -	1
	42,315	33,442	31,143	- -	- -	51,146	62,800	57,315	- -	56,325
Total	10,014	2,569	1,864	1,491	1,176	1,136	817	608	305	48
	$50,458	$37,247	$46,272	$52,256	$56,902	$59,972	$61,631	$62,237	$62,378	$66,052

EXHIBIT D-1

Schedule of Annuitants by Type of Benefit as of June 30, 2012

Type of Benefits/ Form of Payment	Number	Annual Benefits Amount	Average Monthly Benefits
Service:			
Straight Life	2,801	$48,184,578	$1,434
100% J&S	2,279	56,645,049	2,071
50% J&S	515	11,944,306	1,933
5 Years C&L	23	303,549	1,100
10 Years C&L	178	3,070,635	1,438
20 Years C&L	73	1,497,690	1,710
Level	579	12,078,121	1,738
Subtotal:	6,448	$133,723,928	$1,728
Disability:			
Straight Life	96	$1,334,694	$1,159
100% J&S	13	162,433	1,041
50% J&S	8	102,333	1,066
5 years C&L	2	25,253	1,052
10 Years C&L	0	0	0
20 Years C&L	1	9,663	805
Level	0	0	0
Subtotal:	120	$1,634,376	$1,135
Beneficiaries:			
Straight Life	571	$7,320,669	$1,068
5 Years Certain Only	2	42,878	1,787
10 Years Certain Only	9	70,362	652
20 Years Certain Only	1	38,911	3,243
Subtotal:	583	$7,472,820	$1,068
Total:	7,151	$142,831,124	$1,664

EXHIBIT D-2

Schedule of Annuitants by Monthly Benefit as of June 30, 2012

Monthly Benefit Amount	Number of Members	Female	Male	Average Service
Under $200	215	154	61	6.47
200 - 399	464	359	105	12.54
400 - 599	473	375	98	18.17
600 - 799	418	322	96	22.75
800 - 999	409	304	105	24.31
1,000 - 1,199	518	383	135	27.37
1,200 - 1,399	525	353	172	28.81
1,400 - 1,599	573	373	200	30.13
1,600 - 1,799	592	390	202	29.97
1,800 - 1,999	570	358	212	30.97
2,000 - 2,199	501	324	177	30.81
2,200 - 2,399	409	240	169	32.07
2,400 - 2,599	325	199	126	32.61
2,600 - 2,799	281	162	119	33.52
2,800 - 2,999	227	121	106	33.53
3,000 - 3,199	178	99	79	34.47
3,200 - 3,399	124	57	67	34.26
3,400 - 3,599	92	38	54	34.34
3,600 - 3,799	72	29	43	34.90
3,800 - 3,999	42	16	26	36.18
4,000 & over	143	44	99	36.70
Total:	7,151	4,700	2,451	27.44

EXHIBIT E

Reconciliation of Member Data by Status for the Year Ending June 30, 2012

	Active Members	Vested Terminated Members	Non-Vested Terminated Members	Service Retirees	Disabled Retirees	Beneficiaries	Total
A. Number as of July 1, 2011	10,004	1,463	407	6,252	120	561	18,807
B. Additions and new hires	679	0	0	0	0	0	679
C. Participant movement							
1. Retirement	-318	-49	-4*	371	0	0	0
2. Disability	-7	0	0	0	7	0	0
3. Died with beneficiary	-5	-1	0	-29	-1	37**	1
4. Died without beneficiary	-3	-2	0	-126	-6	-27	-164
5. Terminated vested	-150	150	0	0	0	0	0
6. Terminated non-vested	-125	0	125	0	0	0	0
7. Refunds	-136	-38	-26	0	0	0	-200
8. Rehired as active	76	-40	-33	-3	0	0	0
9. Expired benefits	0	0	0	0	0	-6	-6
10. Alternate payee	0	0	0	-17	0	18***	1
D. Data adjustments	-1	0	-1	0	0	0	-2
E. Number as of June 30, 2012	10,014	1,483	468	6,448	120	583	19,116

* *Vested members under ND PERS*
** *Includes two beneficiaries from one deceased active member*
****Includes one new alternate payee*

EXHIBIT F

Statement of Change in Plan Net Assets for Year Ended June 30, 2012

	As of June 30	
	2012	**2011**
A. Assets available at beginning of year	$1,726,179,317	$1,437,949,843
B. Revenue for the year		
1. Contributions		
a. Employee contributions	$40,254,562	$38,869,260
b. Employer contributions	46,126,193	44,545,433
c. Purchased service credit	2,417,995	1,499,748
d. Interest and penalties	9,854	8,809
e. Total	$88,808,604	$84,923,250
2. Income		
a. Interest, dividends, and other income	$39,968,709	$36,055,355
b. Investment expenses	-5,661,973	-6,430,327
c. Net	$34,306,736	$29,625,028
3. Net realized and unrealized gains/(losses)	-$55,818,260	$305,331,203
4. Total revenue: (1e) + (2c) + (3)	$67,297,080	$419,879,481
C. Expenditures for the year		
1. Benefits and refunds		
a. Refunds	$2,479,194	$2,210,738
b. Regular annuity benefits	134,718,464	126,484,335
c. Partial lump-sum benefits paid	532,104	951,229
d. Total	$137,729,762	$129,646,302
2. Administrative and miscellaneous expenses	1,596,976	2,003,705
3. Total expenditures	$139,326,738	$131,650,007
D. Increase/(decrease) in net assets: (B4 – C3)	-$72,029,658	$288,229,474
E. Value of assets at end of year: (A + D)	$1,654,149,659	$1,726,179,317

EXHIBIT G

Statement of Plan Net Assets (Assets at Market or Fair Value)

	As of June 30	
	2012	**2011**
1. Cash and cash equivalents (operating cash)	$14,370,170	$12,365,575
2. Receivables:		
a. Member and employer contributions	$11,076,423	$10,871,495
b. Investment income	6,832,046	7,419,806
c. Miscellaneous receivables	5,472	7,651
d. Total receivables	$17,913,941	$18,298,952
3. Investments		
a. Invested cash	$21,082,755	$15,900,962
b. Domestic equities	539,857,054	653,723,804
c. International equities	272,892,686	395,756,180
d. Domestic fixed income	286,000,423	311,805,434
e. International fixed income	84,045,239	83,199,718
f. Real assets	315,768,906	174,937,685
g. Private equity	104,823,271	63,012,510
h. Total investments	$1,624,470,334	$1,698,336,293
4. Due from other funds	$1,461	$0
5. Equipment & software (net of depreciation)	$762	$3,050
6. Total assets: (1) + (2d) + (3h) + (4) + (5)	$1,656,756,668	$1,729,003,870
7. Liabilities		
a. Accounts payable	$1,985,912	$2,196,925
b. Accrued expenses	607,086	616,348
c. Due to other funds	14,011	11,280
d. Total liabilities	$2,607,009	$2,824,553
8. Total market value of assets available for benefits: (6) – (7d)	$1,654,149,659	$1,726,179,317

EXHIBIT G (continued)

Statement of Plan Net Assets (Assets at Market or Fair Value)

	As of June 30	
	2012	**2011**
9. Asset allocation (investments)		
a. Invested cash	1.3%	0.9%
b. Domestic equities	33.2%	38.5%
c. International equities	16.8%	23.3%
d. Domestic fixed income	17.6%	18.4%
e. International fixed income	5.2%	4.9%
f. Real assets	19.4%	10.3%
g. Private equity	6.5%	3.7%
h. Total investments	100.0%	100.0%

EXHIBIT H

Development of Unfunded Actuarial Accrued Liability

	Year Ending June 30			
	2012		2011	
1. Unfunded actuarial accrued liability at beginning of year		$927,152,884		$795,204,826
2. Normal cost at beginning of year		50,760,259		52,167,174
3. Total contributions		88,808,604		84,923,250
4. Interest on:				
(a) Unfunded actuarial accrued liability and normal cost	$78,233,051		$65,703,073	
(b) Total contributions	3,211,070		3,070,588	
(c) Total interest: (4a) – (4b)		$75,021,981		62,632,485
5. Expected unfunded actuarial accrued liability: (1) + (2) – (3) + (4c)		$964,126,520		$825,081,235
6. Changes due to (gain)/loss from:				
(a) Investments	169,448,005		$120,206,192	
(b) Demographics	-9,785,010		6,164,197	
(c) Total changes due to (gain)/loss: (6a) + (6b)		159,662,995		$126,370,389
7. Change due to plan amendments		0		-24,298,740
8. Change in actuarial assumptions		0		0
9. Unfunded actuarial accrued liability at end of year: (5) + (6c) + (7) + (8)		1,123,789,515		$927,152,884

EXHIBIT I

Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Actuarial Accrued Liability For Actives: The equivalent of the accumulated normal costs allocated to the years before the valuation date.

Actuarial Accrued Liability For Pensioners: The single-sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Actuarial Cost Method: A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the Annual Required Contribution.

Actuarial Gain or Actuarial Loss: A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. Through the actuarial assumptions, rates of decrements, rates of salary increases, and rates of fund earnings have been forecasted. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., TFFR's assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield in actuarial liabilities that are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.

Actuarially Equivalent: Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.

Actuarial Present Value (APV): The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is:

a. Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.)
b. Multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
c. Discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Actuarial Present Value of Future Plan Benefits: The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would be provide sufficient assets to pay all projected benefits and expenses when due.

Actuarial Valuation: The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB Statement No. 25, such as the funded ratio and the ARC.

Actuarial Value of Assets: The value of the Fund's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the ARC.

Actuarially Determined: Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.

Amortization Method: A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.

Amortization Payment: The portion of the pension plan contribution, or ARC, that is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Annual Required Contribution (ARC): The employer’s periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under GASB Statement No. 25. The ARC consists of the Employer Normal Cost and the Amortization Payment.

Assumptions or Actuarial Assumptions: The estimates on which the cost of the Fund is calculated including:

(a) Investment return - the rate of investment yield that the Fund will earn over the long-term future;

(b) Mortality rates - the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates - the rate or probability of retirement at a given age;

(d) Turnover rates - the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement;

(e) Salary increase rates - the rates of salary increase due to inflation and productivity growth.

Closed Amortization Period: A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Funding Period and Open Amortization Period.

Decrements: Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or termination.

Defined Benefit Plan: A retirement plan in which benefits are defined by a formula applied to the member's compensation and/or years of service.

Defined Contribution Plan: A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.

Employer Normal Cost: The portion of the Normal Cost to be paid by the employers. This is equal to the Normal Cost less expected member contributions.

Experience Study: A periodic review and analysis of the actual experience of the Fund that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.

Funded Ratio: The ratio of the actuarial value of assets (AVA) to the actuarial accrued liability (AAL). Plans sometimes calculate a market funded ratio, using the market value of assets (MVA), rather than the AVA, although GASB 25 reporting requires the use of the AVA.

Funding Period or Amortization Period: The term "Funding Period" is used in two ways. First, it is the period used in calculating the Amortization Payment as a component of the ARC. Second, it is a calculated item: the number of years in the future that will theoretically be required to amortize (i.e., pay off or eliminate) the Unfunded Actuarial Accrued Liability, based on the statutory employer contribution rate, and assuming no future actuarial gains or losses.

GASB: Governmental Accounting Standards Board.

GASB 25 and GASB 27: Governmental Accounting Standards Board Statements No. 25 and No. 27. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 27 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 25 sets the rules for the systems themselves.

Investment Return: The rate of earnings of the Fund from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

Margin: The difference, whether positive or negative, between the statutory employer contribution rate and the Annual Required Contribution (ARC) as defined by GASB 25.

Normal Cost: That portion of the Actuarial Present Value of pension plan benefits and expenses allocated to a valuation year by the Actuarial Cost Method. Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of employee contributions and employer Normal Cost unless otherwise specifically stated. Under the entry age normal cost method, the Normal Cost is intended to be the level cost (when expressed as a percentage of pay) needed to fund the benefits of a member from hire until ultimate termination, death, disability, or retirement.

Open Amortization Period: An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount, or in relation to covered payroll, if the actuarial assumptions are realized.

Unfunded Actuarial Accrued Liability:	The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus.
Valuation Date or Actuarial Valuation Date:	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Plan Benefits is determined. The expected benefits to be paid in the future are discounted to this date.

EXHIBIT I

Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:

1.	Pensioners as of the valuation date (including 583 beneficiaries in pay status)		7,151
2.	Members inactive during year ended June 30, 2012 with vested rights		1,483
3.	Members active during the year ended June 30, 2012		10,014
	Fully vested	7,570	
	Not vested	2,444	
4.	Other non-vested inactive members as of June 30, 2012		468

EXHIBIT I (continued)

Summary of Actuarial Valuation Results

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability
A. Determination of Actuarial Accrued Liability			
1. Active members			
a. Retirement benefits	$1,763,051,627	$394,376,573	$1,368,675,054
b. Disability benefits	25,988,951	11,576,400	14,412,551
c. Death benefits	18,489,856	7,469,631	11,020,225
d. Withdrawal benefits	95,159,204	115,989,537	-20,830,333
e. Total	$1,902,689,638	$529,412,141	$1,373,277,497
2. Inactive vested members	68,033,440	--	68,033,440
3. Inactive non-vested members	1,540,967	--	1,540,967
4. Retirees and beneficiaries	1,429,018,382	--	1,429,018,382
5. Total	$3,401,282,427	$529,412,141	$2,871,870,286
B. Determination of Unfunded Actuarial Accrued Liability			
1. Actuarial accrued liability			$2,871,870,286
2. Actuarial value of assets			1,748,080,771
3. Unfunded actuarial accrued liability: (1) – (2)			$1,123,789,515

EXHIBIT II

Actuarial Balance Sheet

	July 1, 2012	July 1, 2011
A. Assets		
1. Current Assets		
a. Market Value	$1,654,149,659	$1,726,179,317
b. Adjustment for actuarial value	93,931,112	96,419,554
c. Actuarial value of assets	$1,748,080,771	$1,822,598,871
2. Actuarial present value of future contributions		
a. Member contributions*	$614,031,279	$565,581,978
b. Employer normal costs	-84,619,138	-62,405,305
c. Unfunded actuarial accrued liability	1,123,789,515	927,152,884
d. Total	$1,653,201,656	$1,430,329,557
3. Total (lc + 2d)	$3,401,282,427	$3,252,928,428
B. Liabilities (Present Value of Projected Benefits)		
1. Retirees and beneficiaries	$1,429,018,382	$1,332,125,929
2. Inactive members	69,574,407	65,871,877
3. Active members	1,902,689,638	1,854,930,622
4. Total	$3,401,282,427	$3,252,928,428

**Reflects member contribution rate increases from 7.75% to 9.75% effective July 1, 2012, and to 11.75% effective July 1, 2014.*

EXHIBIT III

Schedule of Employer Contributions (GASB)

	GASB 25 Annual Required Contribution (ARC)		Actual Employer Contribution		Percentage of GASB ARC Contributed
Fiscal Year	% of Payroll[1]	Amount[2]	% of Payroll	Amount	[(5)/(3)]
(1)	(2)	(3)	(4)	(5)	(6)
2003	7.75%	$28,850,725	7.75%	$28,850,725	100.0%
2004	8.94%	34,186,080	7.75%	29,635,584	86.7%
2005	11.34%	44,471,740	7.75%	30,388,265	68.3%
2006	12.12%	48,747,189	7.75%	31,170,851	63.9%
2007	12.29%	50,532,462	7.75%	31,865,466	63.1%
2008	10.15%	44,114,585	7.75%	33,683,550	76.4%
2009	9.24%	41,986,174	8.25%	37,487,655	89.3%
2010	10.78%	52,053,217	8.25%	39,836,646	76.5%
2011	12.79%	65,112,696	8.75%	44,545,433	68.4%
2012	13.16%	69,373,794	8.75%	46,126,193	66.5%

1. The GASB ARC for each fiscal year is based on the actuarial valuation as of the beginning of the year. Therefore, the FY 2012 ARC is based on the July 1, 2011 valuation. The ARC is defined as the contribution rate required to pay the employer normal cost and to amortize the unfunded actuarial accrued liability over a 30-year period as a level percentage of payroll, but not less than the statutory contribution rate. For FY 2005 and prior years, the unfunded actuarial accrued liability is amortized over a 20-year period as a level dollar amount.
2. The dollar amount of the ARC is based on actual payroll for the year. The FY 2012 ARC shown above differs from the estimated dollar amount shown in the July 1, 2011 actuarial valuation report because of differences between estimated and actual FY 2012 payroll.

EXHIBIT IV

Schedule of Funding Progress (GASB)

Valuation Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded/ Accrued Liability (UAAL) (3) – (2)	Funded Ratio (2) / (3)	Annual Covered Compensation	UAAL as a % of Compensation (4) / (6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
07/01/2003	1,438,400,000	1,690,300,000	251,900,000	85.1%	367,900,000	68.5%
07/01/2004	1,445,600,000	1,800,400,000	354,800,000	80.3%	376,500,000	94.2%
07/01/2005	1,469,700,000	1,965,200,000	495,500,000	74.8%	386,600,000	128.2%
07/01/2006	1,564,000,000	2,073,900,000	509,900,000	75.4%	390,100,000	130.7%
07/01/2007	1,750,100,000	2,209,300,000	459,200,000	79.2%	401,300,000	114.4%
07/01/2008	1,909,500,000	2,330,600,000	421,200,000	81.9%	417,700,000	100.8%
07/01/2009	1,900,327,834	2,445,896,710	545,568,876	77.7%	439,986,705	124.0%
07/01/2010	1,841,960,220	2,637,165,045	795,204,825	69.8%	465,007,110	171.0%
07/01/2011	1,822,598,871	2,749,751,755	927,152,884	66.3%	488,764,292	189.7%
07/01/2012	1,748,080,771	2,871,870,286	1,123,789,515	60.9%	505,285,069	222.4%

Note: Numbers for 7/1/2003 – 7/1/2009 valuation dates are rounded

Exhibit V

Determination of Contribution Sufficiency

	July 1, 2012	
A. Statutory Contributions	**Percent of Payroll**	**Dollar Amount**
1. Member contributions	9.75%	$52,247,477
2. Employer contributions	10.75%	57,606,193
3. Total	20.50%	$109,853,670
B. Required Contributions	**Percent of Payroll**	**Dollar Amount**
1. Gross Normal Cost:		
(a) Retirement	7.40%	$39,629,249
(b) Disability	0.22%	1,186,580
(c) Death	0.14%	739,626
(d) Deferred termination benefit and refunds	2.07%	11,111,793
(e) Total	9.83%	52,667,248
2. Less member contribution rate	9.75%	$52,247,477
3. Employer normal cost rate: (1e) – (2)	0.08%	419,771
4. Employer normal cost rate, adjusted for timing	0.08%	436,131
5. Unfunded actuarial accrued liability rate, adjusted for timing	12.94%	69,339,912
6. Total: (4) + (5)	13.02%	69,776,043
C. Contribution Sufficiency / (Deficiency): (A.2) – (B.6)	-2.27%	-$12,169,850
Projected annual payroll for fiscal year beginning on the valuation date		535,871,564

EXHIBIT VI
Solvency Test

	July 1, 2012	July 1, 2011
1. Actuarial accrued liability (AAL)		
a. Active member contributions	$647,935,914	$626,002,547
b. Retirees and beneficiaries	1,429,018,382	1,332,125,929
c. Active and inactive members (employer financed)	794,915,990	791,623,279
d. Total	$2,871,870,286	$2,749,751,755
2. Actuarial value of assets	1,748,080,771	1,822,598,871
3. Cumulative portion of AAL covered		
a. Active member contribution	100.0%	100.0%
b. Retirees and beneficiaries	77.0%	89.8%
c. Active and inactive members (employer financed)	0.0%	0.0%

EXHIBIT VII

Supplementary Information Required by the GASB

Valuation date	July 1, 2012
Actuarial cost method	Entry Age Normal cost method
Amortization method	Level percent of payroll, assuming payroll increases of 3.25% per annum
Amortization period	30-year open period
Asset valuation method	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five-year period.
Actuarial assumptions:	
Investment rate of return	8.00% per annum
Projected salary increases	Rates of 4.50% to 14.75%
Inflation	3.00%
Cost of living adjustments	None

EXHIBIT VIII
Summary of Assumptions and Methods

Investment Return Rate: 8.00% per annum, compounded annually, equal to an assumed 3.00% inflation rate plus a 5.65% real rate of return, less 0.65% for expected investment and administrative expenses. (Adopted July 1, 1990; allocation among inflation, real rate of return, and expenses modified effective July 1, 2010.)

Mortality Rates:

Post-Termination Non-Disabled*: GRS tables as shown below. (Adopted effective July 1, 2010)
i. 80% of GRS Table 378
ii. 75% of GRS Table 379

Post-Retirement Disabled*: RP- 2000 Disabled-Life tables for Males and Females multiplied by 80% and 95% respectively. (Adopted effective July 1, 2010)

Number of Deaths per 100				
	Male Annuitants		Female Annuitants	
Age	Nondisabled	Disabled	Nondisabled	Disabled
20	0.044	1.806	0.023	0.708
25	0.057	1.806	0.023	0.708
30	0.069	1.806	0.028	0.708
35	0.073	1.806	0.039	0.708
40	0.092	1.806	0.057	0.708
45	0.136	1.806	0.078	0.708
50	0.222	2.318	0.115	1.096
55	0.381	2.835	0.283	1.572
60	0.358	3.363	0.354	2.075
65	0.457	4.014	0.327	2.662
70	1.198	5.007	0.672	3.575

Active Mortality*: The non-disabled post-termination mortality rates multiplied by 60% for males and 40% for females. (Adopted effective July 1, 2010.)

*The mortality tables above reasonably reflect the projected mortality experience of the Fund as of the measurement date. As of the most recent experience study, the ratio of actual to the expected deaths was 118% for males and 115% for females (116% and 121% for males and females for post-disabled mortality). This provides a sufficient margin for future mortality improvement.

Retirement Rates:

The following rates of retirement are assumed for members eligible to retire. (Adopted effective July 1, 2010.)

	Unreduced Retirement *		Reduced Retirement	
Age	**Male**	**Female**	**Male**	**Female**
50	25.00%	15.00%		
51	25.00%	15.50%		
52	25.00%	16.00%		
53	25.00%	16.50%		
54	25.00%	17.00%		
55	20.00%	17.50%	1.50%	1.50%
56	20.00%	18.00%	1.50%	1.50%
57	20.00%	18.50%	1.50%	1.50%
58	20.00%	19.00%	1.50%	1.50%
59	20.00%	19.50%	1.50%	1.50%
60	20.00%	20.00%	4.00%	3.00%
61	20.00%	20.00%	4.00%	3.00%
62	45.00%	35.00%	9.00%	8.00%
63	35.00%	30.00%	7.00%	12.00%
64	35.00%	30.00%	10.00%	15.00%
65	40.00%	30.00%		
66	30.00%	30.00%		
67	30.00%	30.00%		
68	30.00%	30.00%		
69	30.00%	30.00%		
70	25.00%	25.00%		
71	25.00%	25.00%		
72	25.00%	25.00%		
73	25.00%	25.00%		
74	25.00%	25.00%		
75	100.00%	100.00%		

* If a member reaches eligibility for unreduced retirement before age 65 under the rule of 85 (Grandfathered Tier 1) or the Rule of 90/Age 60 (Non-grandfathered Tier 1 and Tier 2), 10% is added to the rate just at the age the member becomes first eligible for an unreduced retirement benefit.

Disability Rates:

Shown below for selected ages. (Adopted effective July 1, 2010.)

Age	Rates
20	0.011%
25	0.011%
30	0.011%
35	0.011%
40	0.033%
45	0.055%
50	0.088%
55	0.154%
60	0.297%

Termination Rates:

Termination rates based on service, for causes other than death, disability, or retirement. (Adopted effective July 1, 2010.)

Termination Rates*		
Service	**Male**	**Female**
0	33.00%	30.00%
1	15.00%	15.00%
2	12.00%	10.00%
3	9.00%	8.50%
4	8.00%	7.00%
5	7.00%	6.00%
6	6.00%	5.00%
7	5.00%	4.50%
8	4.00%	4.25%
9	3.75%	4.00%
10	3.50%	3.50%
11	3.25%	3.25%
12	3.00%	3.00%
13	2.75%	2.75%
14	2.50%	2.50%
15-19	1.25%	2.00%
20-24	1.25%	1.50%
25-28	1.25%	0.75%
29 & over	0.00%	0.00%

** Termination rates cut out at first retirement eligibility*

Salary Increase Rates:

Inflation rate of 3.00% plus productivity increase rate of 1.50%, plus step-rate/promotional increase as shown below. (Adopted effective July 1, 2010.)

Years of Service	Annual Step-Rate Promotional Component	Annual Total Salary Increase
0	10.25	14.75
1	3.50	8.00
2	3.25	7.75
3	3.00	7.50
4	2.75	7.25
5	2.50	7.00
6	2.25	6.75
7	2.00	6.50
8	1.75	6.25
9	1.75	6.25
10	1.50	6.00
11	1.50	6.00
12	1.25	5.75
13	1.25	5.75
14	1.00	5.50
15	1.00	5.50
16	0.75	5.25
17	0.75	5.25
18	0.75	5.25
19	0.50	5.00
20	0.50	5.00
21	0.50	5.00
22	0.50	5.00
23	0.25	4.75
24	0.25	4.75
25 & over	0.00	4.50

Payroll Growth Rate:

3.25% per annum. This assumption does not include any allowance for future increase in the number of members. (Adopted effective July 1, 2010.)

Percent Married:

For valuation purposes, 75% of members are assumed to be married. Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses. (Adopted effective July 1, 1992.)

Percent Electing a Deferred Termination Benefit:	Terminating members are assumed to elect the most valuable benefit at the time of termination. Termination benefits are assumed to commence at the first age at which unreduced benefits are available. (Adopted effective July 1, 1990.)
Provision for Expenses:	The assumed investment return rate represents the anticipated net rate of return after payment of all administrative and investment expenses. These expenses are expected to reduce the gross investment return rate by 0.65%. (Adopted effective July 1, 2010.)
Asset Valuation Method:	The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (or less than) expected investment income. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The actual investment return for this purpose is determined net of all investment and administrative expenses.
Actuarial Cost Method:	Normal cost and actuarial accrued liability are calculated on an individual basis and are allocated by service, with normal cost determined as if the current benefit provisions had always been in effect. Entry age is determined as the age at member's enrollment in TFFR. In the calculation of the normal cost, the benefit provisions applicable to future Tier 2 members were used. The actuarial accrued liability is the difference between the total present value of future benefits and the actuarial present value of future normal costs. The unfunded actuarial accrued liability (UAAL) is the excess of the actuarial accrued liability over the actuarial value of assets.
Amortization Period and Method:	The GASB Annual Required Contribution (ARC) is determined as the sum of (a) the employer normal cost rate, and (b) a level percentage of payroll required to amortize the unfunded actuarial accrued liability over 30 years. If the calculated ARC is less than the 10.75% statutory employer contribution rate, the 10.75% rate will be treated as the ARC. The 30-year period is an open period, and does not decrease in subsequent valuations.

EXHIBIT IX
Summary of Plan Provisions

Effective Date:	July 1, 1971
Plan Year:	Twelve-month period ending June 30th
Administration:	The Teachers' Fund for Retirement (TFFR) is administered by a Board of Trustees. A separate State Investment Board is responsible for the investment of the trust assets, although the TFFR Board establishes the asset allocation policy. The Retirement and Investment Office is the administrative agency for TFFR.
Type of Plan:	TFFR is a qualified governmental defined benefit retirement plan. For Governmental Accounting Standards Board purposes, it is a cost-sharing multiple-employer public employee retirement system.
Eligibility:	All certified teachers of any public school in North Dakota participate in TFFR. This includes teachers, supervisors, principals, administrators, etc. Non-certified employees such as teacher's aides, janitors, secretaries, drivers, etc. are not allowed to participate in TFFR. Eligible employees become members at their date of employment.
Member Contributions:	All active members contribute 9.75% of their salary per year. The employer may "pick up" the member's contributions under the provisions of Internal Revenue Code Section 414(h). The member contribution rate was increased from 7.75% to 9.75% effective July 1, 2012, and is scheduled to increase to 11.75% effective July 1, 2014. The total addition of 4.00% to the member contribution rate will remain in effect until TFFR is 90% funded on an actuarial basis. At that point, the member contribution rate will revert to 7.75%.
Salary:	The member's total earnings are used for salary purposes, including overtime, etc., and including nontaxable wages under a Section 125 plan, but excluding certain extraordinary compensation, such as fringe benefits or unused sick and vacation leave.

Employer Contributions: The district or other employer that employs a member contributes a percentage of the member's salary. This percentage consists of a base percentage of 7.75%, plus, since July 1, 2008, additions as shown below.

Effective Date	Addition to 7.75% Base Rate	Employer Contribution Rate
July 1, 2008	0.50%	8.25%
July 1, 2010	1.00%	8.75%
July 1, 2012	3.00%	10.75%
July 1, 2014	5.00%	12.75%

However, the additions are subject to a “sunset” provision, so the contribution rate will revert to 7.75% once the funded ratio reaches 90%, measured using the actuarial value of assets. The contribution rate will not automatically increase if the funded ratio later falls back below 90%.

Service: Employees receive credit for service while a member. A member may also purchase credit for certain periods, such as time spent teaching at a public school in another state, by paying the actuarially determined cost of the additional service. Special rules and limits govern the purchase of additional service.

Tiers: Members who join TFFR by June 30, 2008 are in Tier 1, while members who join later are in Tier 2. If a Tier 1 member terminates, takes a refund, and later rejoins TFFR after June 30, 2008, that member will be in Tier 2. As of June 30, 2013, Tier 1 members who are at least age 55 and vested (3 years of service) as of the effective date, or the sum of the member’s age and service is at least 65, are considered Grandfathered, and previous plan provisions will not change. Tier 1 members who do not fit these criteria as of June 30, 2013, are considered Non-grandfathered. These members, along with Tier 2, will have new plan provisions, as described below.

Final Average Compensation (FAC): The average of the member's highest three (Tier 1 members) or five (Tier 2 members) plan year salaries. Monthly benefits are based on one-twelfth of this amount.

Normal Retirement:

a. Eligibility:

- Tier 1 members may retire upon Normal Retirement on or after age 65 with credit for 3 years of service, or if earlier, when the sum of the member's age and service is at least 85. Effective as of June 30, 2013, Tier 1 members who are at least age 55 and vested (3 years of service) as of the effective date, or the sum of the member's age and service is at least 65, normal retirement eligibility will not change (participants are Grandfathered). For those who will not meet these criteria as of June 30, 2013 (Non-grandfathered), members may retire upon Normal Retirement on or after age 65 with credit for 3 years of service, or if earlier, when the sum of the member's age and service is at least 90, with a minimum age of 60.
- Tier 2 members may retire upon Normal Retirement on or after age 65 with credit for 5 years of service, or, if earlier, when the sum of the member's age and service is at least 90. Effective July 1, 2013, Tier 2 members may retire upon Normal Retirement on or after age 65 with credit for 5 years of service, or if earlier, when the sum of the member's age and service is at least 90, with a minimum age of 60.

b. Monthly Benefit: 2.00% of FAC (monthly) times years of service.

c. Payment Form: Benefits are paid as a monthly life annuity, with a guarantee that if the payments made do not exceed the member's contributions plus interest, determined as of the date of retirement, the balance will be paid in a lump-sum to the member's beneficiary. Optional forms of payment are available; see below.

Early Retirement:

a. Eligibility: Tier 1 members may retire early after reaching age 55 with credit for three years of service, while Tier 2 members may retire early after reaching age 55 with credit for five years of service.

b. Monthly Benefit: 2.00% of FAC (monthly) times years of service, multiplied by a factor that reduces the benefit 6% for each year from the earlier of (i) age 65, or (ii) the age at which current service plus age equals 85 (Tier 1 members) or 90 (Tier 2 members). Effective July 1, 2013 for members who are either Non-grandfathered Tier 1 or Tier 2: 2.00% of FAC (monthly) times years of service, multiplied by a factor that reduces the benefit 8% for each year from the earlier of (i) age 65, or (ii) the age at which current service plus age equals 90 with a minimum age of 60.

c. Payment Form: Same as for Normal Retirement above.

Disability Retirement:

a. Eligibility: A member is eligible provided he/she has credit for at least one year of service. Effective July 1, 2013, a member is eligible provided he/she has credit for at least five years of service.

b. Monthly Benefit: 2.00% of FAC (monthly) times years of service with a minimum 20 years of service. Effective July 1, 2013, 2.00% of FAC (monthly) times years of service.

c. Payment Form: The disability benefit commences immediately upon the member's retirement. Benefits cease upon recovery or reemployment. Disability benefits are payable as a monthly life annuity with a guarantee that, at the member's death, the sum of the member's contributions plus interest as of the date of retirement that is in excess of the sum of payments already received will be paid in a lump sum to the member's beneficiary.

d. All alternative forms of payment other than level income and the partial lump-sum option are also permitted in the case of disability retirement. For basis recovery only, disability benefits are converted to normal retirement benefits when the member reaches normal retirement age or age 65, whichever is earlier.

Deferred Termination Benefit:

a. Eligibility: A Tier 1 member with at least three years of service, or a Tier 2 member with at least five years of service, who does not withdraw his/her contributions from the fund, is eligible for a deferred termination benefit.

b. Monthly Benefit: 2.00% of FAC (monthly) times years of service. Both FAC and service are determined at the time the member leaves active employment. Benefits may commence unreduced at age 65 or when the sum of the member’s age and service is 85 (Grandfathered Tier 1 members) or 90 with a minimum age of 60 (Non-grandfathered Tier 1 and Tier 2 members). Reduced benefits may commence at or after age 55 if the member is not eligible for an unreduced benefit. Reductions are the same as for Early Retirement.

c. Payment Form: The form of payment is the same as for Normal Retirement above.

d. Death Benefit: A member who dies after leaving active service but before retiring is entitled to receive a benefit as described below.

Withdrawal (Refund) Benefit:

a. Eligibility: Tier 1 members leaving covered employment with less than three years of service, and Tier 2 members leaving covered employment with less than five years of service, are eligible. Optionally, vested members may withdraw their contributions plus interest in lieu of the deferred benefits otherwise due.

b. Benefit: The member who withdraws receives a lump-sum payment of his/her employee contributions, plus the interest credited on these contributions. Interest is credited at 6% per year (0.5% per month).

Death Benefit:

a. Eligibility: Death must have occurred while an active or an inactive, non-retired member.

b. Benefit: Upon the death of a nonvested member, a refund of the member's contributions and interest is paid. Upon the death of a vested member, the beneficiary may elect (i) the refund benefit above, or (ii) a life annuity of the normal retirement benefit, determined under Option One below, based on FAC and service as of the date of death, but without applying any reduction for the member's age at death. In determining the reduction for Option One, members not eligible for normal retirement benefits use the Fund's option tables for disabled members.

Optional Forms of Payment:

There are optional forms of payment available on an actuarially equivalent basis, as follows:

Option 1 - A life annuity payable while either the participant or his beneficiary is alive, "popping-up" to the original life annuity if the beneficiary predeceases the member.

Option 2 - A life annuity payable to the member while both the member and beneficiary are alive, reducing to 50% of this amount if the member predeceases the beneficiary, and "popping-up" to the original life annuity if the beneficiary predeceases the member.

Option 3a - A life annuity payable to the member, with a guarantee that, should the member die prior to receiving 60 payments (five years), the payments will be continued to a beneficiary for the balance of the five-year period. (This option has been replaced by Option 3b. It is not available to employees who retire on or after August 1, 2003. Retirees who elected this option prior to that date are unaffected.)

Option 3b - A life annuity payable to the member, with a guarantee that, should the member die prior to receiving 240 payments (twenty years), the payments will be continued to a beneficiary for the balance of the twenty-year period. (This option replaced Option 3a effective August 1, 2003.)

Option 4 - A life annuity payable to the member, with a guarantee that, should the member die prior to receiving 120 payments (10 years), the payments will be continued to a beneficiary for the balance of the ten-year period.

Option 5 - A non-level annuity payable to the member, designed to provide a level total income when combined with the member's Social Security benefit. This option is not available to disabled retirees.

In addition, members may elect a partial lump-sum option (PLSO) at retirement. Under this option, a member receives an immediate lump-sum equal to 12 times the monthly life annuity benefit and a reduced annuity. The reduction is determined actuarially. The member can then elect to receive the annuity benefit in one of the other optional forms, except that members who receive a PLSO may not elect Option 5 – the level income option. The PLSO is not available to disabled retirees or retirees who are not eligible for an unreduced retirement benefit.

Actuarial equivalence is based on tables adopted by the Board of Trustees.

Cost-of-living Increase: From time to time, TFFR has been amended to grant certain post-retirement benefit increases. However, TFFR has no automatic cost-of-living increase features.

EXHIBIT X

Summary of Plan Changes

1991 Legislative Session:

1. Benefit multiplier increased from 1.275% to 1.39% for all future retirees.
2. Provide a post-retirement benefit increase for all annuitants receiving a monthly benefit on June 30, 1991. The monthly increase is the greater of a 10% increase or a level increase based on years of service and retirement date:
   a. $3 per year of service for retirements before 1980
   b. $2 per year of service for retirements between 1980 and 1983
   c. $1 per year of service for retirements from 1984 through June 30, 1991

   Minimum increase is $5 per month. Maximum increase is $75 per month.

1993 Legislative Session:

1. Benefit multiplier increased from 1.39% to 1.55% for all future retirees.
2. Provide a post-retirement benefit increase for all annuitants receiving a monthly benefit on June 30, 1993. The monthly increase is the greater of a 10% increase or a level increase based on years of service and retirement date:
   a. $3 per year of service for retirements before 1980
   b. $2.50 per year of service for retirements between 1980 and 1983
   c. $1 per year of service for retirements from 1984 through June 30, 1993

   Minimum increase is $5 per month. Maximum increase is $100 per month.
3. Minimum retirement benefit increased to $10 times years of service up to 25, plus $15 times years of service greater than 25. (Previously was $6 up to 25 years of service plus $7.50 over 25 years of service.)
4. Disability benefit changed to 1.55% of FAC times years of service using a minimum of 20 years of service.

1995 Legislative Session:

There were no material changes made during the 1995 legislative session.

1997 Legislative Session:

1. Benefit multiplier increased from 1.55% to 1.75% for all future retirees.
2. Member contribution rate and employer contribution rate increased from 6.75% to 7.75%.
3. A $30.00/month benefit improvement was granted to all retirees and beneficiaries.

1999 Legislative Session:

1. Active members will now be fully vested after three years (rather than five years) of service.
2. Early retirement benefits will be reduced 6% per year from the earlier of (i) age 65, or (ii) the date as of which age plus service equals 85 (rather than from age 65 in all cases).
3. An ad hoc COLA was provided for all retirees and beneficiaries. This increase is equal to an additional $2.00 per month for each year of service plus $1.00 per month for each year since the member's retirement.
4. The formula multiplier was increased from 1.75% to 1.88% effective July 1, 1999.

2001 Legislative Session:

1. An ad hoc COLA was provided for all retirees and beneficiaries. The ad hoc COLA increase is equal to an additional $2.00 per month for each year of service plus $1.00 per month for each year since the member's retirement. Retirees and beneficiaries will also receive two additional increases equal to 0.75% times the monthly benefit, payable July 1, 2001 and July 1, 2002. The two 0.75% increases are conditional. If the actuarial margin is a shortfall, i.e., is negative, by 60 basis points or more, or if the margin has been negative by 30 or more basis points for two years, the Board could elect to suspend the increase.
2. The formula multiplier was increased from 1.88% to 2.00% effective July 1, 2001.

2003 Legislative Session:

1. Partial lump-sum option adopted, equal to twelve times the monthly life annuity benefit. Not available if level-income option is elected. Not available for reduced retirement or disability retirement.
2. Five-year certain and life option replaced with 20-year certain and life. This does not impact retirees who retired under the five-years certain and life option.

3. Employer service purchase authorized.
4. Active members of the Department of Public Instruction are permitted to make a one-time irrevocable election to transfer to the North Dakota Public Employees Retirement System in FY 2004. Both assets and liabilities for all TFFR service will be transferred for electing employees. Transferred assets will be based on the actuarial present value of the member's accrued TFFR benefit, or the member's contribution account balance if larger.

2005 Legislative Session:

There were no material changes made during the 2005 legislative session.

2007 Legislative Session:

1. For active members hired on or after July 1, 2008 (called Tier 2 members):
    a. Members will be eligible for an unreduced retirement benefit when they reach age 65 with at least five years of service (rather than three years of service); or if earlier, when the sum of the member's age and service is at least 90 (rather than 85).
    b. Members will be eligible for a reduced (early) retirement benefit when they reach age 55 with five years of service, rather than three years of service.
    c. Members will be fully vested after five years of service (rather than three year of service).
    d. The Final Average Compensation for Tier 2 members is the average of the member's highest five plan year salaries, rather than the average of the three highest salaries.
2. The employer contribution rate increases from 7.75% to 8.25% effective July 1, 2008, but this rate will be reset to 7.75% once the Fund reaches a 90% funded ratio, measured using the actuarial value of assets. (If the funded ratio later falls below 90% again, the contribution rate will not automatically return to 8.25%.)
3. Employer contributions are required on the salary of reemployed retirees.
4. Active members of the Department of Career and Technical Education are permitted to make a one-time irrevocable election to transfer to the North Dakota Public Employees Retirement System in FY 2008. Both assets and liabilities for all TFFR service will be transferred for electing employees. Transferred assets will be the actuarial present value of the member's accrued TFFR benefit, or the member's contribution account balance, if larger.

2009 Legislative Session:

1. An individual who retired before January 1, 2009, and is receiving monthly benefits is entitled to receive a supplemental payment from the fund. The supplemental payment is equal to an amount determined by taking twenty dollars multiplied by the member's number of years of service credit plus fifteen dollars multiplied by the number of years since the member's retirement as of January 1, 2009. The supplemental payment may not exceed the greater of 10% of the member's annual annuity or $750.00. TFFR will make the supplemental payment in December 2009.
2. The employer contribution rate increases from 8.25% to 8.75% effective July 1, 2010, but this rate will be reset to 7.75% once the Fund reaches a 90% funded ratio, measured using the actuarial value of assets. (If the funded ratio later falls below 90% again, the contribution rate will not automatically return to 8.75%.)

2011 Legislative Session:

1. The employer contribution rate increases from 8.75% to 10.75% effective July 1, 2012, and increases thereafter to 12.75% effective July 1, 2014. The member contribution rate increases from 7.75% to 9.75% effective July 1, 2012, and increases thereafter to 11.75% effective July 1, 2014. Employer and member contributions will be reset to 7.75% once the Fund reaches a 90% funded ratio, measured using the actuarial value of assets.
2. For current Tier 1 members who, as of June 30, 2013, are vested (at least 3 years of service), and at least age 55, OR the sum of the member's age and service is at least 65, are considered a Tier 1 Grandfathered member. Current Tier 1 members, who will not meet this criteria as of June 30, 2013, are considered a Tier 1 Non-grandfathered member.
3. Eligibility for normal/ unreduced retirement benefits do not change for Tier 1 Grandfathered members. For Tier 1 Non-grandfathered and Tier 2 members, effective after June 30, 2013, unreduced retirement benefits start when the member reaches age 65 and is vested (3 years for Tier 1 Non-grandfathered, 5 years for Tier 2); or if earlier, when the sum of the member's age and service is at least 90, with a minimum age of 60.
4. Early retirement benefits do not change for Tier 1 Grandfathered members. For Tier 1 Non-grandfathered and Tier 2 members, effective after June 30, 2013, the normal retirement benefit will be reduced by 8% per year from the earlier of age 65 OR the age at which the sum of the member's age and service is at least 90, with a minimum age of 60.
5. Effective after June 30, 2013, all members may retire on disability after a period of at least five years of service (rather one year of service). The amount of the benefit is based on a 2% multiplier and actual service (rather than a minimum of twenty years of service in the current calculation).

6. Effective July 1, 2012, re-employed retirees are required to pay member contributions.
7. Effective August 1, 2011, beneficiary and death benefit provisions were updated, and the 60-month death payment benefit was removed.

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NORTH DAKOTA RETIREMENT AND INVESTMENT OFFICE
Teachers' Fund for Retirement
State Investment Board

NORTH DAKOTA TEACHERS' FUND FOR RETIREMENT

Actuarial Valuation as of July 1, 2012

Discussion of Valuation Results and Projections

October 25, 2012

Kim Nicholl, FSA, MAAA, FCA, EA
Matthew Strom, FSA, MAAA, EA

#5296304_1




SEGAL

Discussion Topics

Segal

- Overview of Valuation Process
- Summary of Valuation Highlights
- Membership and Demographics
- Valuation Results and Projections

Purposes of the Actuarial Valuation

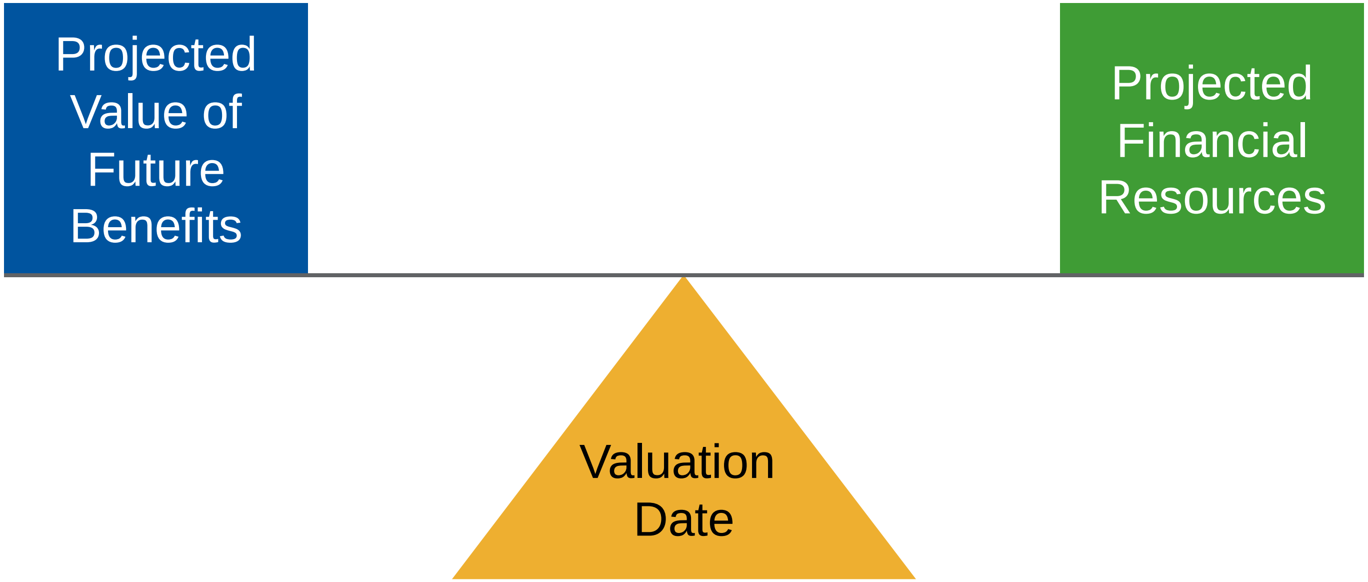
- Report the Fund's assets
- Estimate the Fund's liabilities
- Determine the Annual Required Contribution for fiscal year 2013
- Provide information for annual financial statements
- Identify emerging trends

How is an Actuarial Valuation Performed?

The actuaries will:

- Gather data as of the valuation date
  - Participant data
  - Financial data
- Project a benefit for each member, for each possible benefit
- Apply assumptions about:
  - Economic (investment return, inflation, salary raises)
  - People or demographic (death, disability, retirement, turnover)
- Apply assumptions to benefits to determine a total liability and assign liabilities to service
- Apply the funding policy to determine Annual Required Contribution
  - Based on actuarial cost method and asset valuation method

Actuarial Balance



Over the life of a pension system,

Benefits + Expenses = Contributions + Investment Return

Contributions = Benefits + Expenses - Investment Return

Actuarial Assumptions

Two types:

Demographic	Economic
• Retirement • Disability • Death in active service • Withdrawal • Death after retirement	• Inflation • Interest rate (return on assets) • Salary increases • Payroll growth

Actuaries make assumptions as to when and why a member will leave active service, and estimate the amount and duration of the pension benefits paid.

Economic Assumptions

- **Interest Rate**
  - 8%
- **Salary Increase Rates**
  - Based on service
  - Ranges from 14.75% for new members to 4.5% for members with 25 or more years of service
- **Payroll Growth**
  - 3.25%

Actuarial Methods

- **Asset valuation method (actuarial value of assets)**
  - Smoothing of investment gains or losses
  - TFFR uses a five-year smoothing method
    - Investment returns above or below the expected return are recognized over five years
  - No market value corridor is applied (e.g., actuarial value must fall within 80% to 120% of market value)
- **Cost method**
  - Allocation of liability between past service and future service
    - TFFR uses the entry age normal cost method
    - Most retirement systems use the entry age normal cost method
- **Amortization method**
  - 30-year "open" period to pay off unfunded actuarial accrued liability
  - Based on level percentage of payroll
  - Governmental Accounting Standards Board requires 30-year maximum period to determine the Annual Required Contribution

Entry Age Normal Cost Method

Allocates Cost Between Past and Future service

- **Normal Cost:** Cost of annual benefit accrual as a level percent of salary
- **Actuarial Accrued Liability:** Represents accumulated value of past normal costs (or difference between total cost and future normal costs)
- **Unfunded Actuarial Accrued Liability:** Actuarial accrued liability minus actuarial value of assets
- **Annual Required Contribution:**
  - Normal cost plus
  - Amortization payment of unfunded accrued liability over a 30-year period as a percent of payroll

Actuarial Accrued Liability and Normal Cost

The **actuarial accrued liability** is the portion of the total liability that is allocated to members' past years of service

Retirees and beneficiaries:

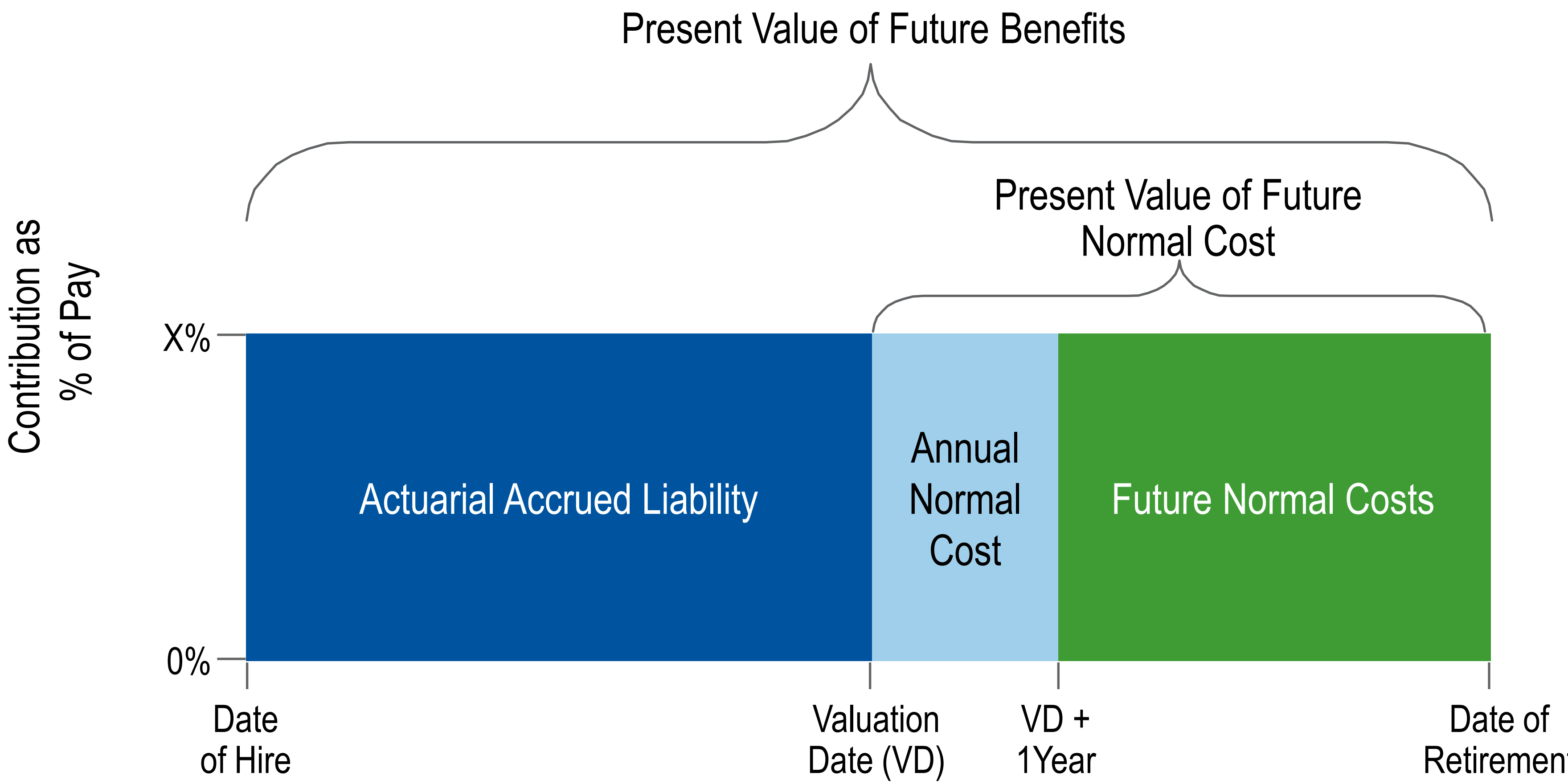
- All years of service are in the past, so the **actuarial accrued liability** is equal to the total liability

Active members:

- The **actuarial accrued liability** represents the portion of the total liability that is attributable to the years of service that the members have already worked
- The **normal cost** represents the anticipated growth in the accrued liability in the coming year

The actuarial accrued liability is compared to the assets as a measure of funding progress.

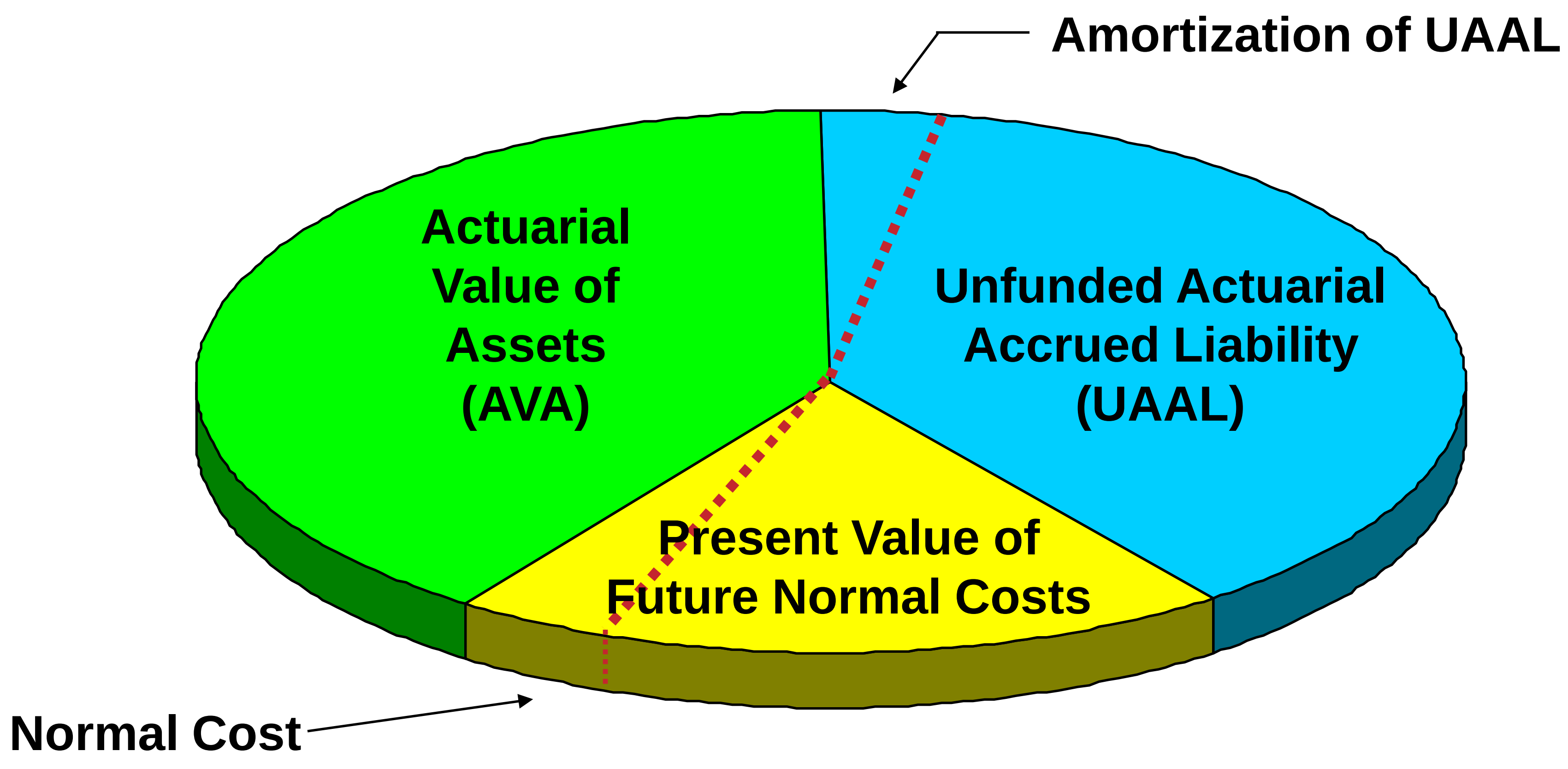
Funding Process



Actuarial Accrued Liability - Assets = Unfunded Actuarial Accrued Liability

Annual Required Contribution

Present Value of Future Benefits



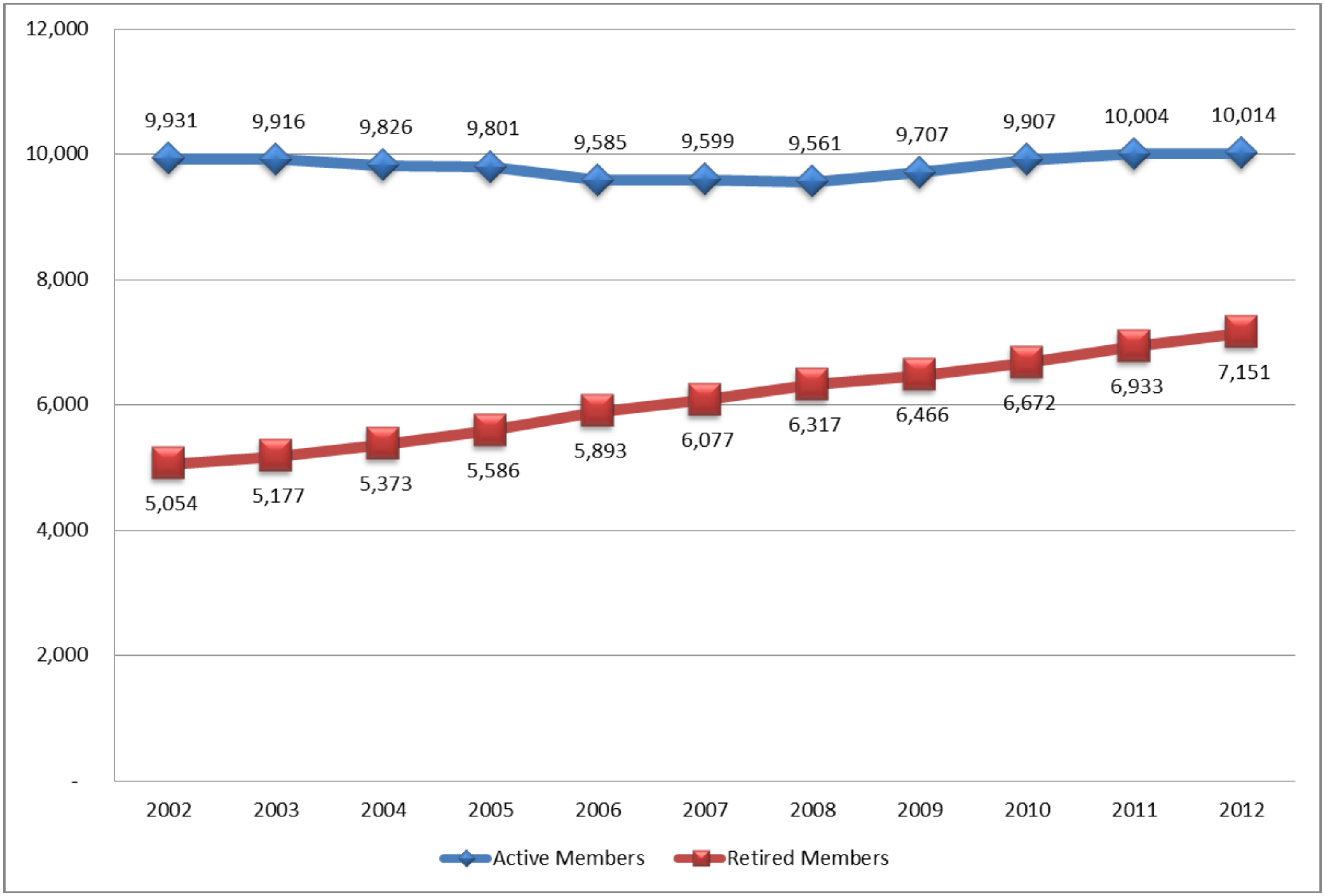
Summary of Valuation Highlights

- Valuation reflects increases in contribution rates (4% for both members and employers) contained in HB 1134
  - Member rate increased from 7.75% in FY12 to 9.75% for FY13 and FY14 and increases to 11.75% for FY15 and thereafter
  - Employer rate increased from 8.75% in FY12 to 10.75% for FY13 and FY14 and increases to 12.75% for FY15 and thereafter
  - Increases would revert to 7.75% for both members and employers once the funded ratio reaches 90% (measured using the actuarial value of assets)
- Market value of assets returned -1.4% for year ending 6/30/12 (Segal calculation)
  - Gradual recognition of deferred losses resulted in -1.4% return on actuarial assets
  - Unrecognized investment losses represent about 6% of market assets
- Net impact on funded ratio was a decrease from 66.3% (as of 7/1/2011) to 60.9% (as of 7/1/2012)
- Net impact on GASB 25 Annual Required Contribution (ARC) was a decrease from 13.16% of payroll (FY12) to 13.02% of payroll (FY13)
  - Based on the employer contribution rate for fiscal 2013 of 10.75%, there is a contribution deficiency of 2.27% of payroll
    - Additional contribution rate increases from HB 1134 (effective 7/1/2014) will address this deficiency

Membership

	2012	2011	Change
Active:			
• Number	10,014	10,004	+0.1%
• Payroll	$505.3 mil	$488.8 mil	+3.4%
• Average Age	43.7 years	43.9 years	- 0.2 years
• Average Service	13.7 years	13.8 years	- 0.1 years
Retirees and Beneficiaries			
• Number	7,151	6,933	+3.1%
• Total Annual Benefits	$ 142.8 mil	$ 133.6 mil	+6.9%
• Average Monthly Benefit	$1,664	$1,606	+3.6%

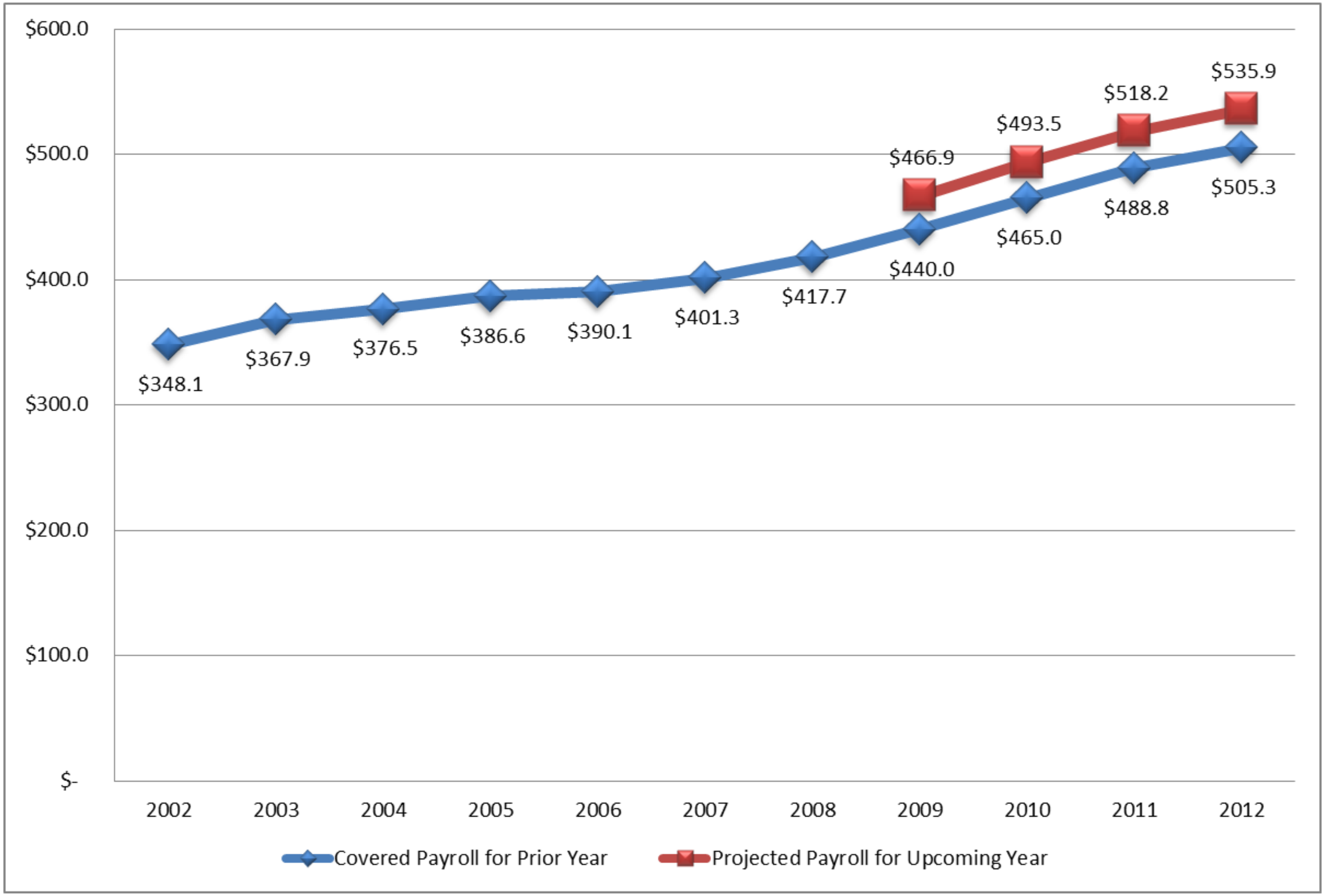
Active and Retired Membership



Since 2002, number of retirees and beneficiaries has increased 3.5% per year on average.

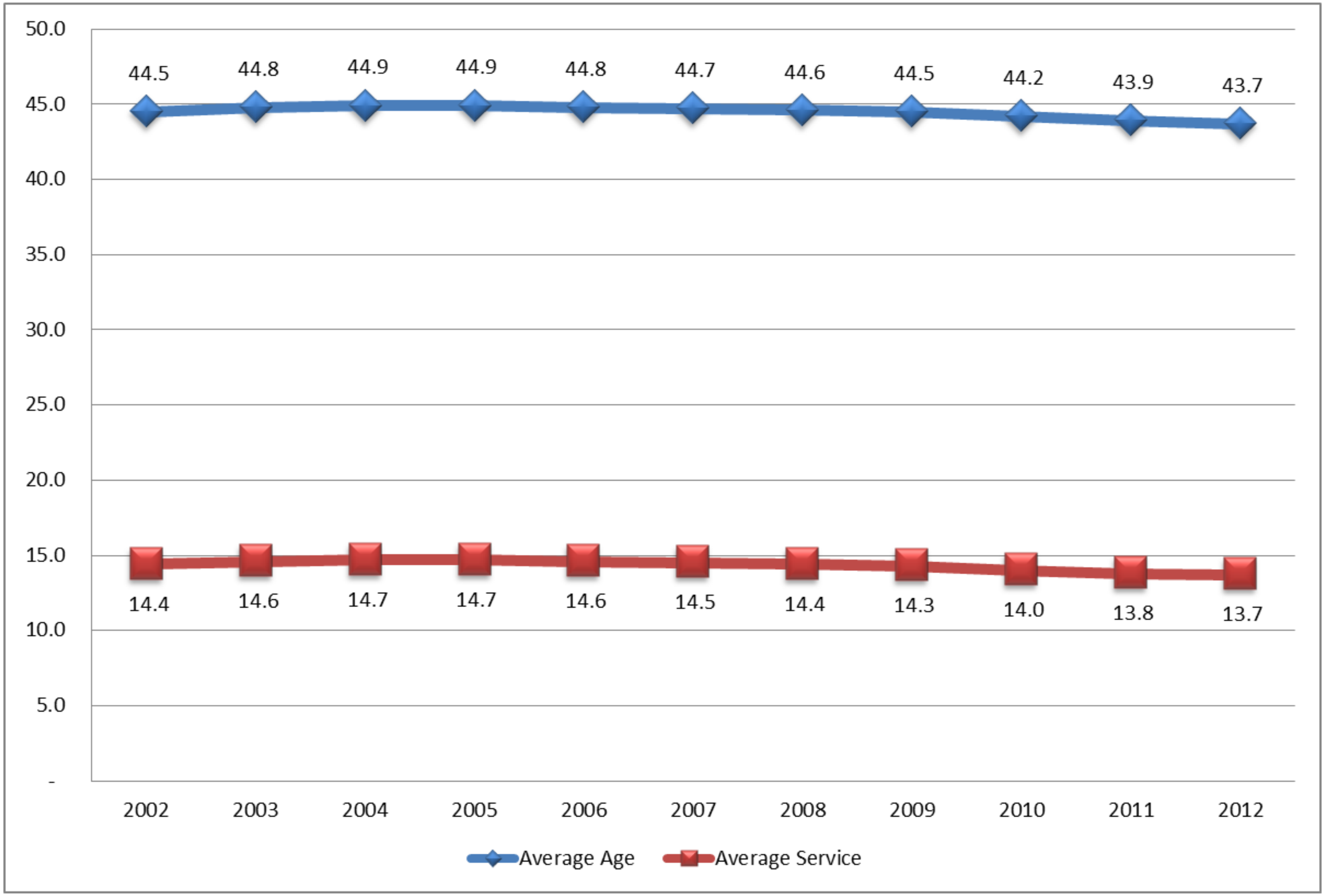
Active Payroll

$ Millions



Since 2002, active payroll has increased, on average, 3.8% per year.

Average Age and Service of Active Members



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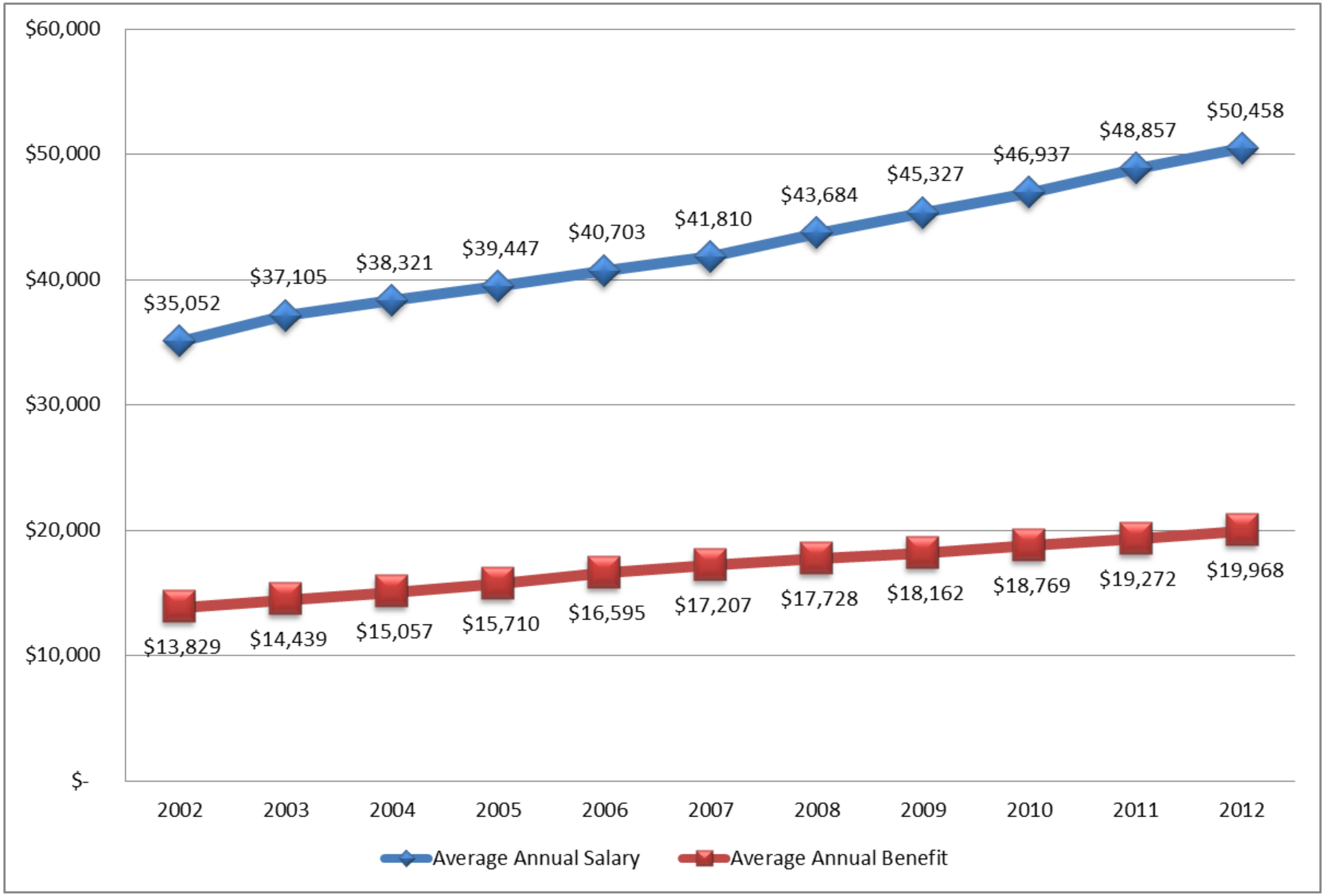
Average Salary and Average Benefit



Since 2002, average salary has increased, on average, 3.7% per year. Average annual benefit has also increased by 3.7% per year.

Assets

- The market value of assets decreased from $1.726 billion (as of June 30, 2011) to $1.654 billion (as of June 30, 2012)
  - Segal determined the investment return was -1.4%, net of investment and administrative expenses
- The actuarial value of assets – which smoothes investment gains and losses over five years – decreased from $1.823 billion (as of June 30, 2011) to $1.748 billion (as of June 30, 2012)
  - Investment return of -1.4%, net of investment and administrative expenses
  - Actuarial value is 105.7% of market
  - There is a total of $94 million of deferred investment losses that will be recognized in future years
- The average annual return on market assets over the past 10 years is 5.5%
  - 20-year average is 7.0%
- The average annual return on actuarial assets over the past 10 years is 4.0%
  - 20-year average is 6.9%

Market Value of Assets ($ in millions)

Fiscal Year Ending June 30, 2012	
Beginning of Year	$1,726
Contributions:	
• Employer	46
• Member	41
• Service Purchases	2
• Total	89
Benefits and Refunds	(138)
Investment Income (net)	(23)
End of Year	$1,654
Rate of Return	-1.4%

Actuarial Value of Assets ($ in millions)

1. Market Value of Assets as of June 30, 2011	$1,726
2. Contributions and Benefits for FYE June 30, 2012	(49)
3. Expected Return	136
4. Expected Market Value of Assets (1) + (2) + (3)	$1,813
5. Actual Market Value of Assets on June 30, 2012	**1,654**
6. Excess/(Shortfall) for FYE June 30, 2012 (5) – (4)	(159)
Excess/(Shortfall) Returns:	

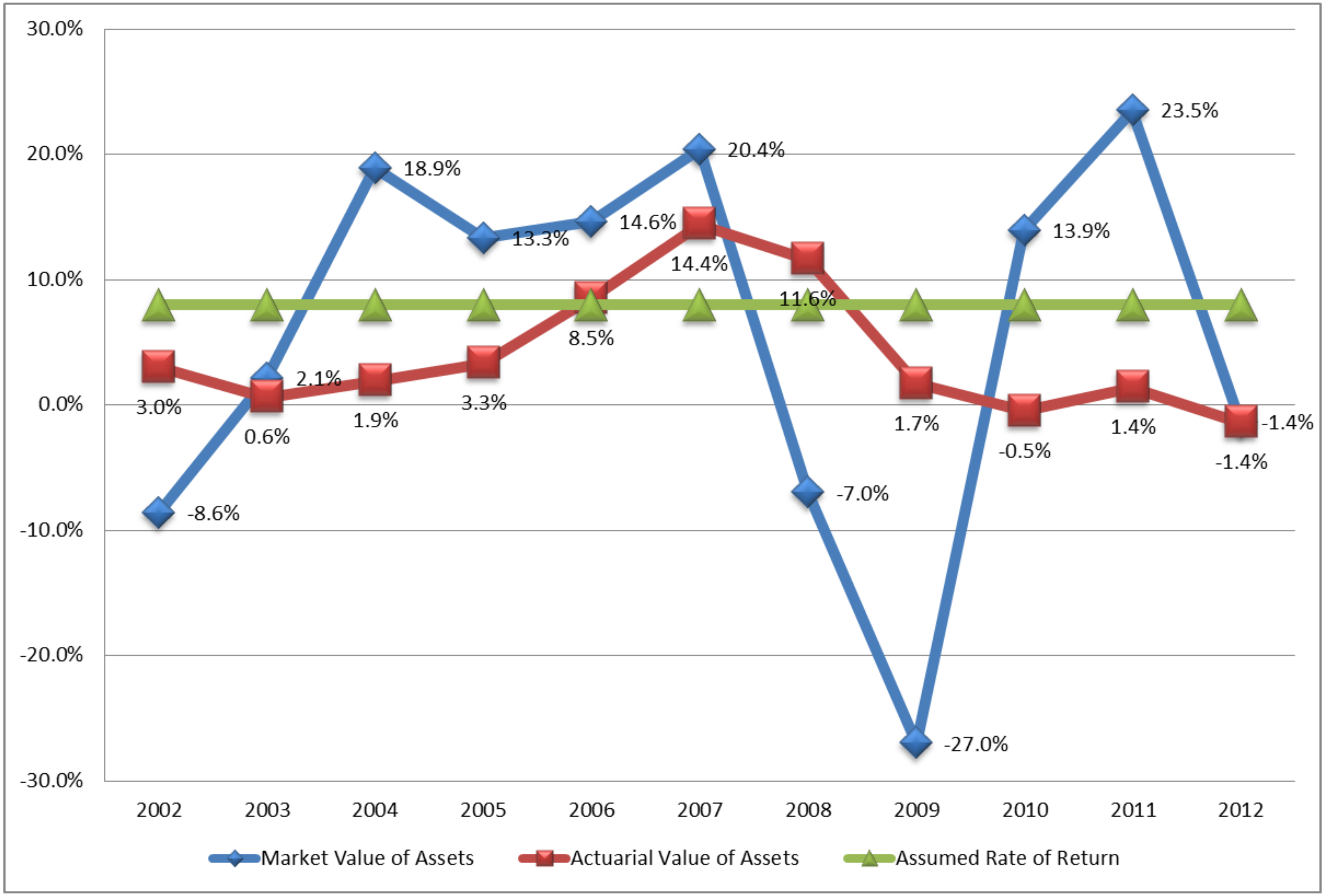
Year	Initial Amount	Deferral %	Unrecognized Amount
2012	($159)	80%	($128)
2011	220	60%	132
2010	74	40%	30
2009	(640)	20%	(128)
2008	(303)	0%	0
7. Total			**($94)**

8. Actuarial Value of Assets as of June 30, 2012 (5) - (7)	**$1,748**
9. Actuarial Value of Assets as a % of Market Value of Assets	106%

Market and Actuarial Values of Assets

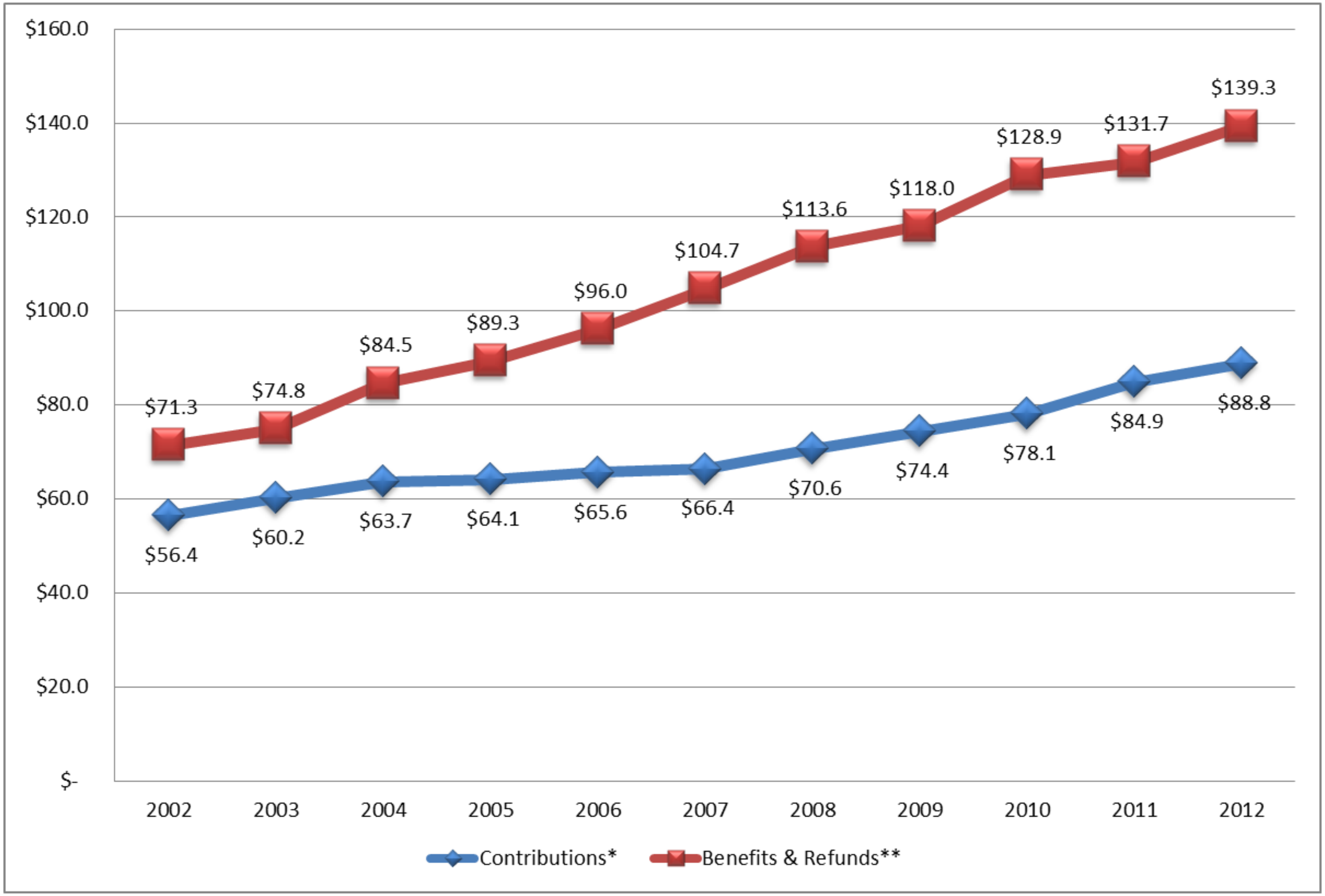
$ Millions

Asset Returns



Contributions vs. Benefits and Refunds

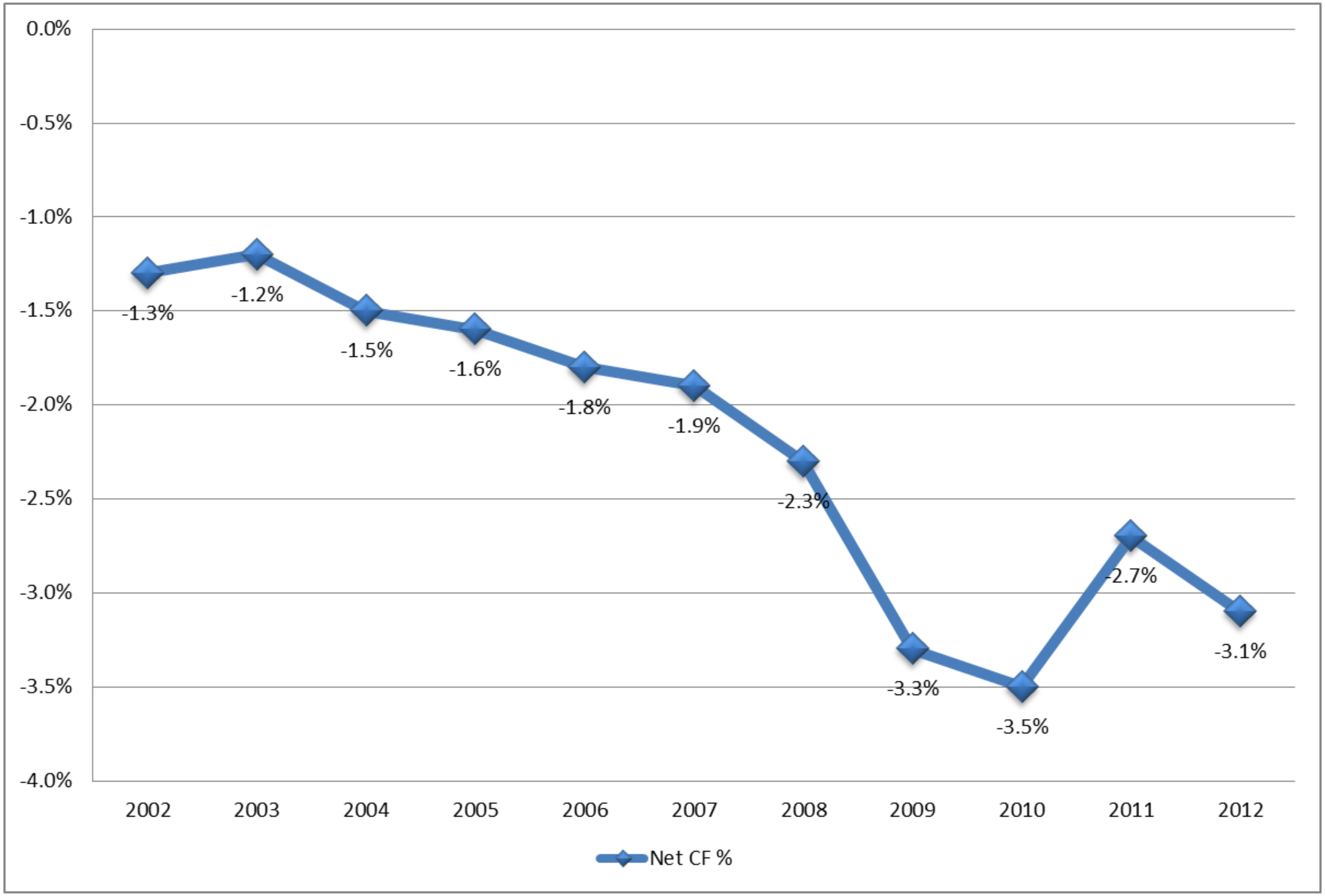
$ Millions



* Includes member and employer contributions, and service purchases

** Includes administrative expenses

Net Cash Flow as a % of Market Value



Valuation Results ($ in millions)

	July 1, 2012	July 1, 2011
Actuarial Accrued Liability:		
• Active Members	$1,373	$1,352
• Inactive Members	70	66
• Retirees and Beneficiaries	1,429	1,332
Total	**$2,872**	**$2,750**
Actuarial Assets	1,748	1,823
Unfunded Accrued Liability	$1,124	$ 927
Funded Ratio	60.9%	66.3%

Annual Required Contribution

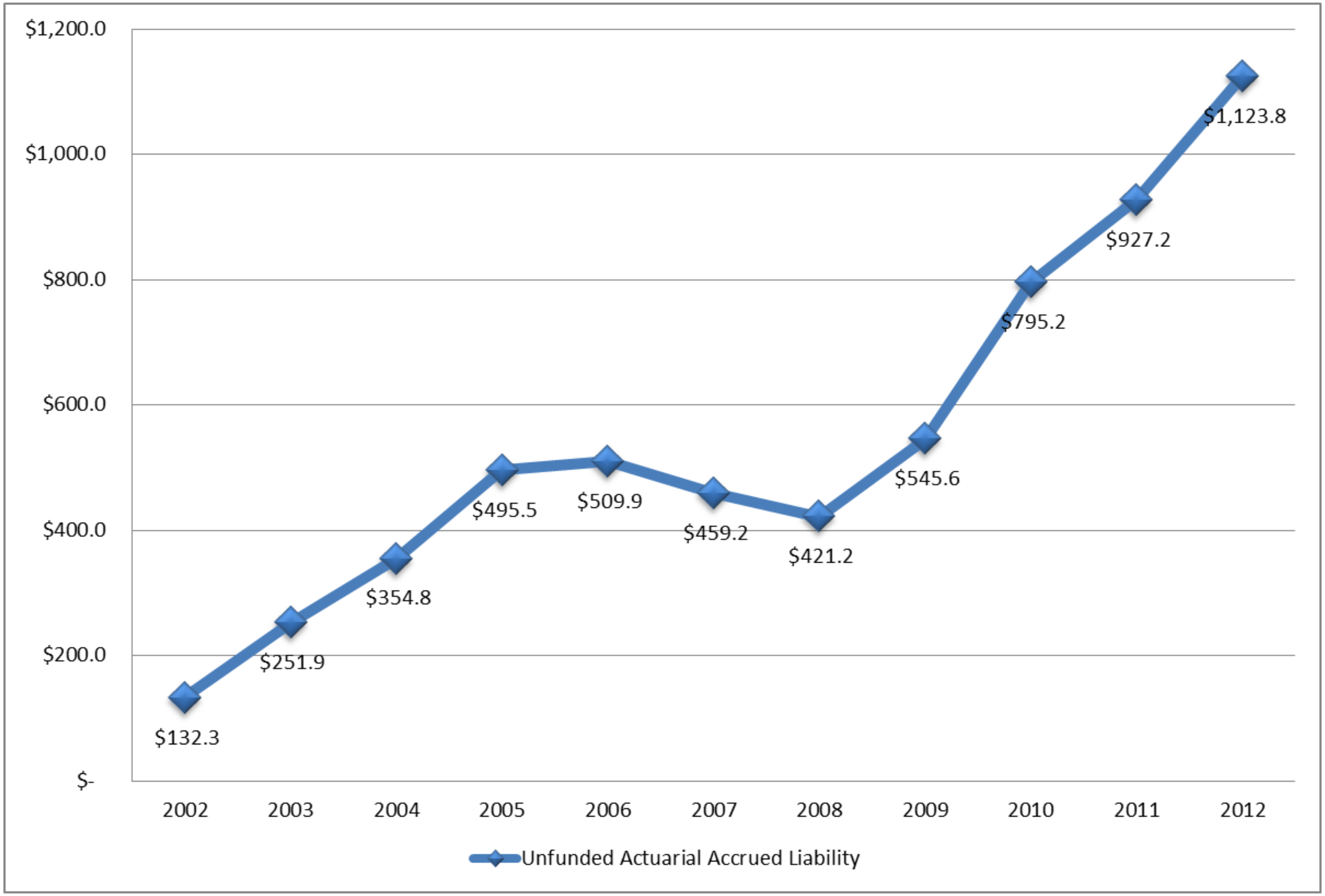
	July 1, 2012	July 1, 2011
Normal Cost Rate	9.83%	9.80%
Member Rate	9.75%	7.75%
Employer Normal Cost Rate	0.08%	2.05%
Adjusted for Timing	0.08%	2.12%
Amortization of UAAL	12.94%	11.04%
Annual Required Contribution	13.02%	13.16%
Employer Rate	10.75%	8.75%
Contribution Sufficiency/(Deficiency)	(2.27%)	(4.41%)

Valuation Results - Comments

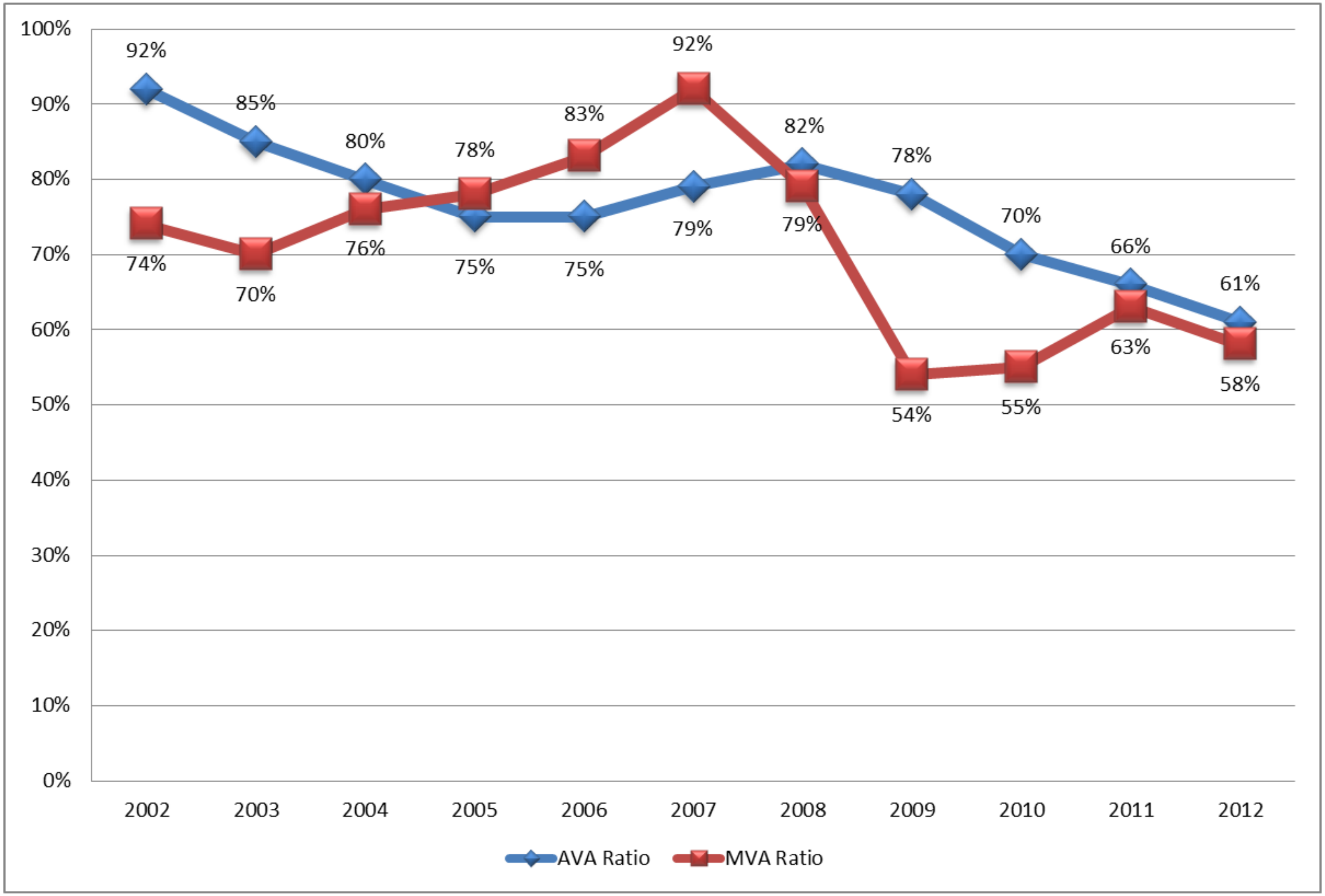
- The actuarial accrued liability increased from $2.750 billion (as of June 30, 2011) to $2.872 billion (as of June 30, 2012)
- The unfunded actuarial accrued liability (UAAL) increased from $927 million to $1,124 million
  - UAAL is 222% of active payroll supplied by System
- The funded ratio on an AVA basis decreased from 66% to 61%
  - On a market value basis, the funded ratio decreased from 63% to 58%
- The Annual Required Contribution (ARC) decreased from 13.16% of payroll to 13.02% of payroll
  - Compared to 10.75% employer contribution, results in a contribution shortfall of 2.27%
  - The funding period based on the 10.75% statutory rate is 51 years
  - Reflecting the additional 4% increase in total contribution rate would result in a funding period of 23 years

Unfunded Actuarial Accrued Liability

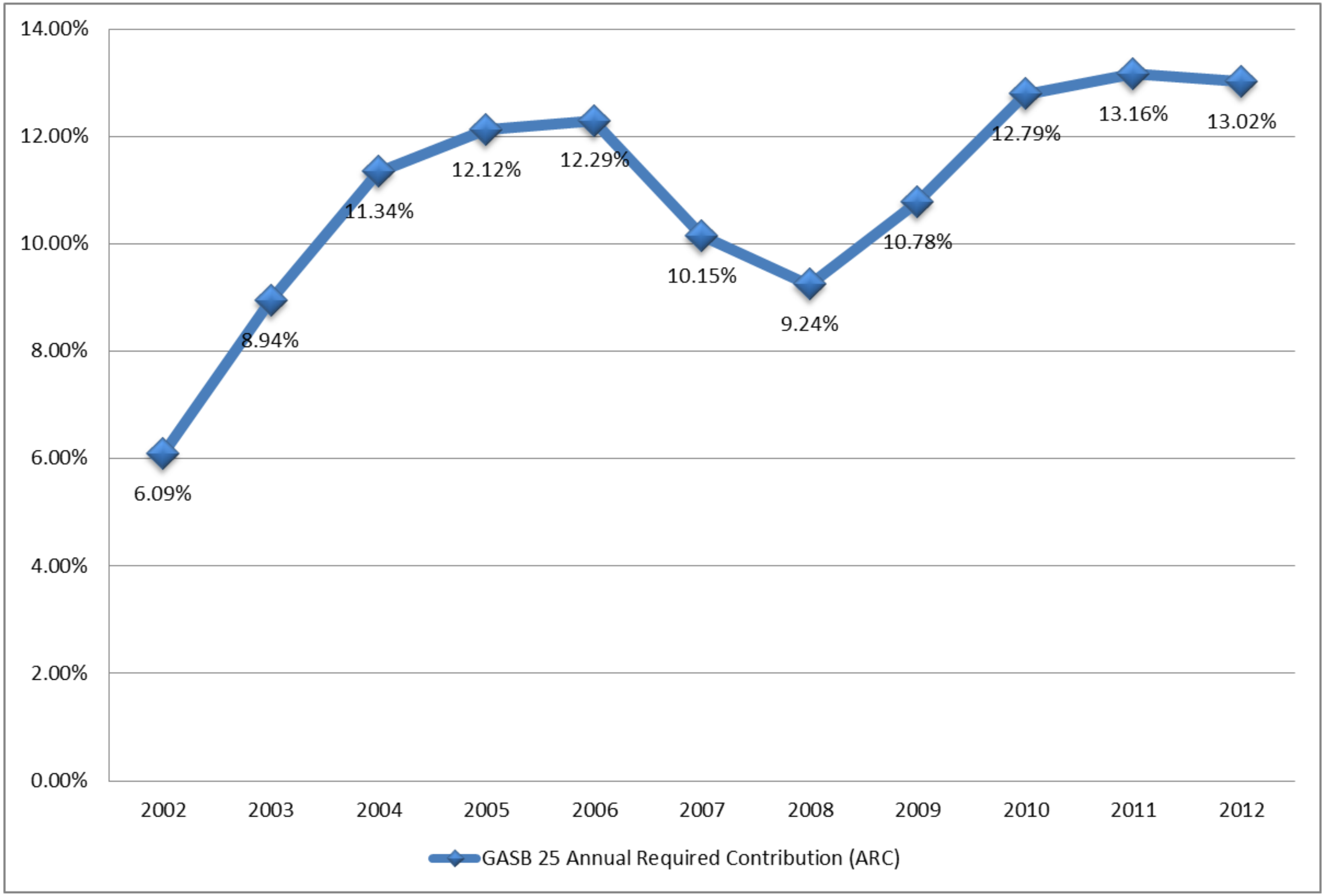
$ Millions



Funded Ratios



GASB 25 Annual Required Contribution (ARC)



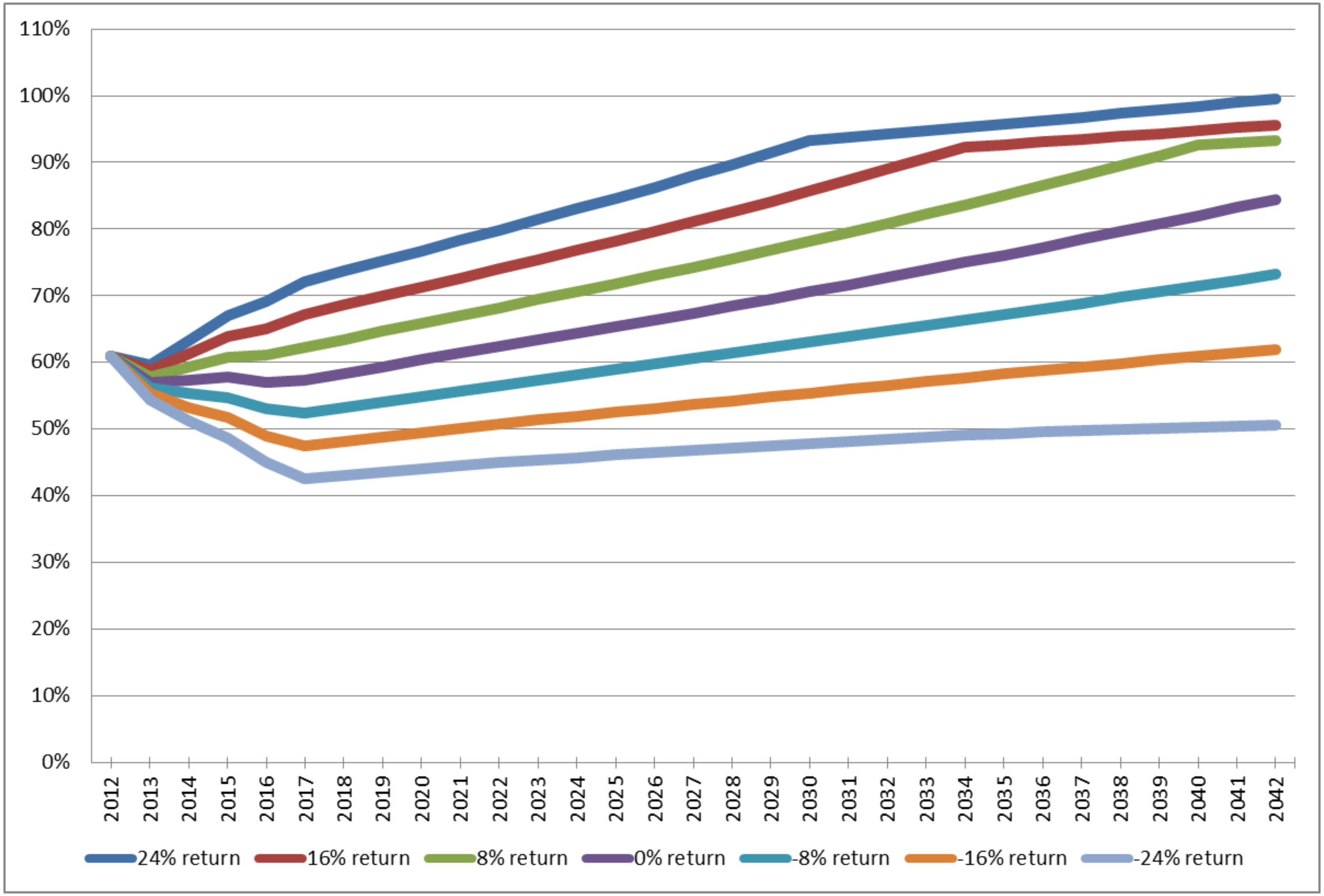
Since 2005, the calculation of the ARC is based on 30-year level percentage of payroll amortization.

Prior to 2005, the ARC calculation was based on a 20-year amortization period.

Projections

- Projections of estimated funded ratios for 30 years
  - Based on FY13 investment return scenarios ranging from -24% to +24%
  - Assumes Fund earns 8% per year in FY14 and each year thereafter
  - Additional projections assuming Fund earns 7% or 9% per year every year
  - All other experience is assumed to emerge as expected
- Includes contribution rate increases from HB 1134
  - Member rate is 9.75% for FY13 and FY14 and increases to 11.75% for FY15 and thereafter
  - Employer rate is 10.75% for FY13 and FY14 and increases to 12.75% for FY15 and thereafter
  - Increases "sunset" back to 7.75% once the funded ratio reaches 90% (based on actuarial assets)

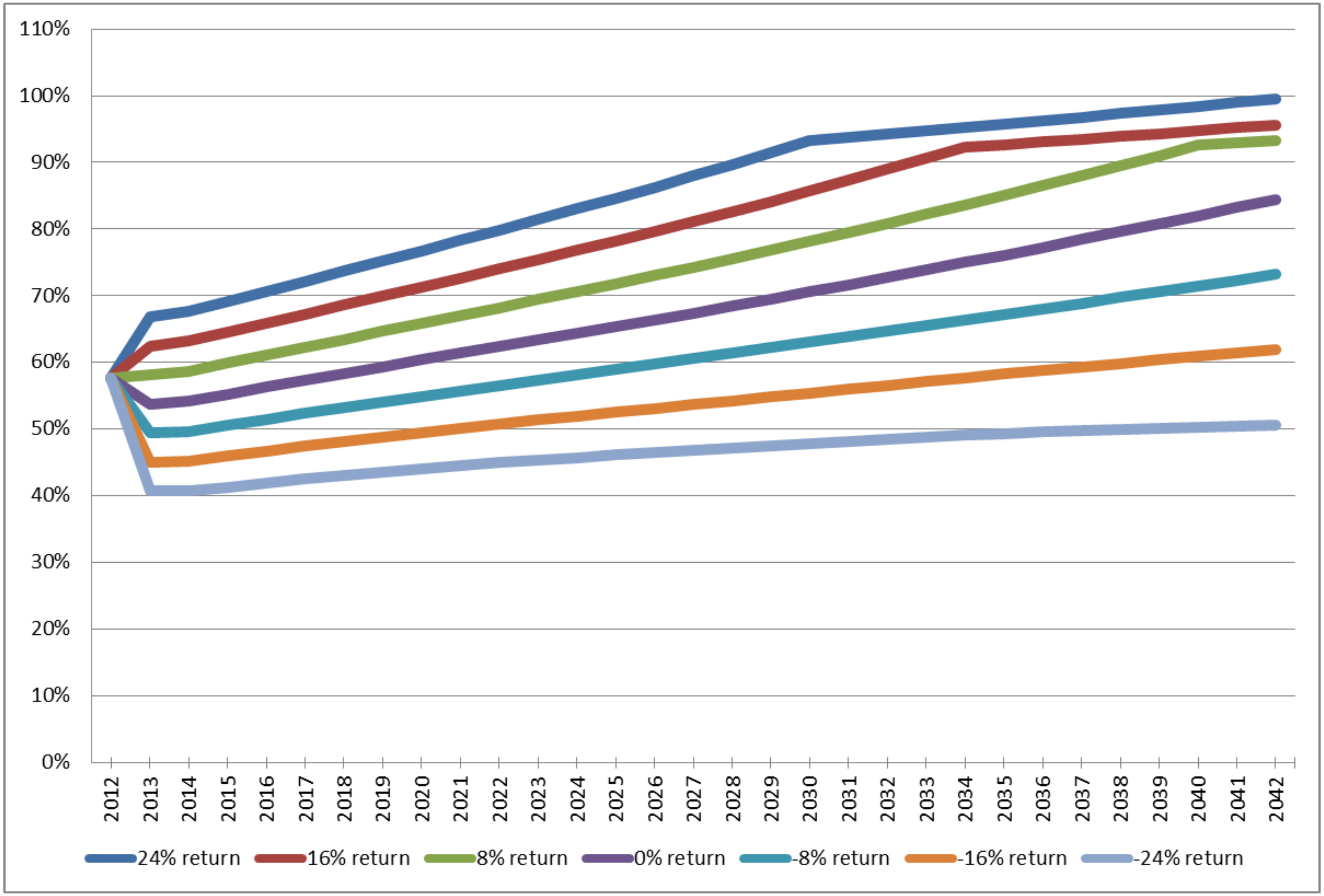
Projected Funded Ratios (AVA Basis)



Projected Funded Ratios (AVA Basis)

Valuation Year	24% for FY2013	16% for FY2013	8% for FY2013	0% for FY2013	-8% for FY2013	-16% for FY2013	-24% for FY2013
2012	61%	61%	61%	61%	61%	61%	61%
2013	60%	59%	58%	57%	56%	55%	54%
2014	63%	61%	59%	57%	55%	53%	51%
2015	67%	64%	61%	58%	55%	52%	49%
2016	69%	65%	61%	57%	53%	49%	45%
2017	72%	67%	62%	57%	52%	47%	42%
2022	80%	74%	68%	62%	57%	51%	45%
2027	88%	81%	74%	67%	61%	54%	47%
2032	94%	89%	81%	73%	65%	57%	49%
2037	97%	94%	88%	78%	69%	59%	50%
2042	100%	96%	93%	84%	73%	62%	51%

Projected Funded Ratios (MVA Basis)



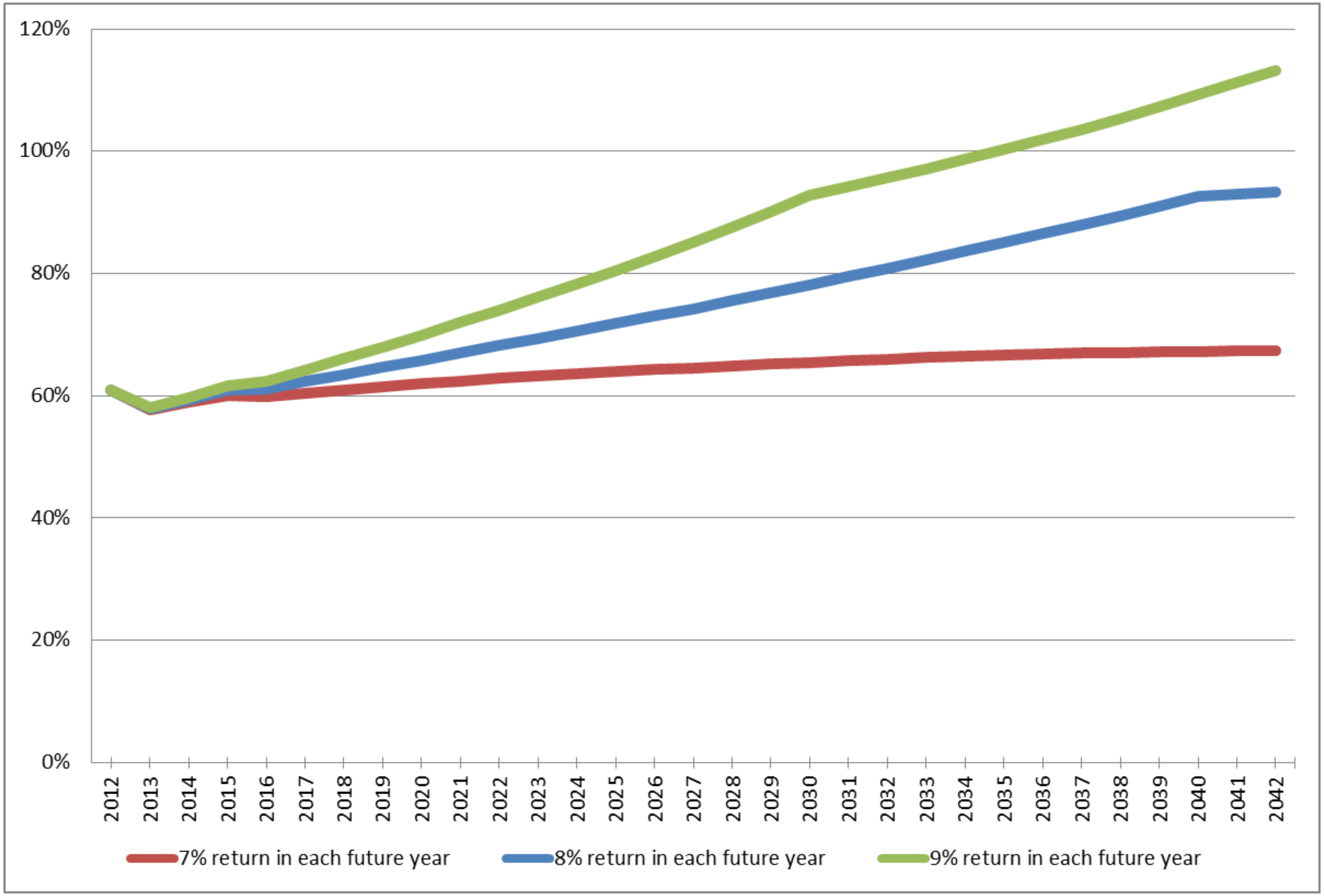
Projected Funded Ratios (MVA Basis)

Valuation Year	24% for FY2013	16% for FY2013	8% for FY2013	0% for FY2013	-8% for FY2013	-16% for FY2013	-24% for FY2013
2012	58%	58%	58%	58%	58%	58%	58%
2013	67%	63%	58%	54%	49%	45%	41%
2014	68%	63%	59%	54%	50%	45%	41%
2015	69%	65%	60%	55%	51%	46%	41%
2016	71%	66%	61%	56%	52%	47%	42%
2017	72%	67%	62%	57%	52%	47%	42%
2022	80%	74%	68%	62%	57%	51%	45%
2027	88%	81%	74%	67%	61%	54%	47%
2032	94%	89%	81%	73%	65%	57%	49%
2037	97%	94%	88%	78%	69%	59%	50%
2042	100%	96%	93%	84%	73%	62%	51%

Projected Margin (AVA Basis)

Valuation Year	24% for FY2013	16% for FY2013	8% for FY2013	0% for FY2013	-8% for FY2013	-16% for FY2013	-24% for FY2013
2012	-2.27%	-2.27%	-2.27%	-2.27%	-2.27%	-2.27%	-2.27%
2013	-0.94%	-1.24%	-1.53%	-1.82%	-2.11%	-2.41%	-2.70%
2014	2.12%	1.44%	0.76%	0.08%	-0.60%	-1.28%	-1.96%
2015	3.16%	2.10%	1.05%	-0.01%	-1.06%	-2.11%	-3.17%
2016	3.72%	2.31%	0.90%	-0.52%	-1.93%	-3.34%	-4.75%
2017	4.61%	2.85%	1.09%	-0.66%	-2.42%	-4.18%	-5.94%
2022	6.67%	4.48%	2.28%	0.08%	-2.12%	-4.31%	-6.51%
2027	9.41%	6.71%	4.00%	1.29%	-1.41%	-4.12%	-6.82%
2032	2.53%	9.50%	6.16%	2.83%	-0.50%	-3.84%	-7.17%
2037	3.40%	1.97%	8.73%	4.58%	0.42%	-3.73%	-7.89%
2042	4.49%	2.70%	1.62%	6.73%	1.54%	-3.65%	-8.84%

Projected Funded Ratios (AVA Basis)
Actual Returns +1% or -1% of Assumed



Questions?

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MEMORANDUM

TO: TFFR Board

FROM: Fay Kopp

DATE: October 18, 2012

SUBJ: TFFR Funding Policy

At the July 2012 TFFR board meeting, Kim Nicholl, Segal Company, gave an educational presentation to the Board on Elements of an Actuarial Funding Policy.

As you may recall, because of the new Governmental Accounting Standards Board (GASB) standards, public pension plans are developing funding policies which specifically describe the actuarial cost method, asset smoothing method, and amortization method of the plan.

The Board asked Segal to provide various options relating to these actuarial methods for consideration by the Board. These will be distributed and presented at the October meeting.

Enclosure

RIO
NORTH DAKOTA
RETIREMENT AND
INVESTMENT OFFICE
Teachers' Fund for Retirement
State Investment Board

NORTH DAKOTA TEACHERS' FUND FOR RETIREMENT

Elements of an Actuarial Funding Policy

October 25, 2012

Kim Nicholl, FSA, MAAA, FCA, EA
Matthew Strom, FSA, MAAA, EA

#5297243_1

SEGAL

Agenda

- Background
- Need for a funding policy
- General policy objectives
- Funding policy components
  - Actuarial cost method
  - Asset smoothing method
  - Amortization method
- Summary
- Projections
- Questions

Background

- Current funding policy is the “Annual Required Contribution” (ARC)
  - Defined by current Governmental Accounting Standards Board (GASB) standards
  - Statutory contributions are compared to the ARC
- GASB ARC
  - Entry age normal cost method
  - Asset smoothing method based on 5-year smoothing of investment gains and losses
  - Unfunded actuarial accrued liability (UAAL) amortized over open (rolling) 30-year period

Renewed Focus on Funding Policy

- Governance issues
  - Independent determination of actuarially based contribution requirements
    - Includes actuarial assumptions and funding policy
  - Contribution rates are set by legislature
    - Actuarially based rates would ensure sound funding

- GASB
  - Requires disclosure of contributions made to the ARC
  - New accounting statements effective in 2014 will eliminate the ARC
    - If a plan has an “actuarially determined contribution” (ADC), then disclose actual contribution and the ADC
    - If plan does not have an ADC, no disclosure of actual contributions
  - Current ARC, based on 30-year open amortization of unfunded liabilities, should be revisited
    - Demographic changes (aging population)
    - Mature plan
    - Investment and economic environment
    - Heightened scrutiny of public pension plan funding

GASB and Funding Policy

- GASB is eliminating the ARC
  - They are in the “accounting business”, not the “funding business”
  - But if plan has a funding policy, the resulting contribution amount is called the “Actuarially Determined Contribution” (ADC)
- Actuarially Determined Contribution
  - If determined, disclose method and amount
  - Compare statutory contributions to the ADC
  - GASB provides no basis for the ADC except “actuarial standards of practice”
  - ADEC is the new ARC
  - For TFFR, no ADC currently exists

Should the old ARC be TFFR’s ADC?

General Funding Policy Objectives

1. Actuarially determined contribution (ADC)
   - Future contributions plus current assets sufficient to fund all benefits for current members
   - Contributions = Normal Cost + **full** Unfunded Actuarial Accrued Liability payment
   - Statutory contributions should be compared to the ADC as a measure of adequacy

2. Intergenerational equity
   - Reasonable allocation of funding to years of service

3. Contributions as a stable percentage of payroll
   - Reasonable management and control of future employer contribution volatility

4. Support public policy goals of accountability and transparency
   - Clear in intent and effect
   - Allow assessment of whether, how and when sponsor will meet funding requirements

Three Funding Policy Components

- **<u>Actuarial cost method</u>** allocates present value of member's future benefits to years of service
  - Defines Normal Cost and Actuarial Accrued Liability (AAL)
  - TFFR actuarial cost method is the "entry age normal" method
- **<u>Asset smoothing method</u>** manages short term market volatility while tracking MVA
  - Defines the Unfunded Actuarial Accrued Liability (UAAL)
  - TFFR asset smoothing method is based on five year smoothing of annual investment returns that exceed 8% (gains) and fall short of 8% (losses)
    - No market value corridor
    - A corridor would restrict the difference between actuarial value of assets and market value of assets (e.g., 80% to 120%)

Three Funding Policy Components (continued)

- **Amortization method** sets contributions to systematically pay off the UAAL
  - Length of time and structure of payments
  - TFFR contribution rates are fixed and currently compared to GASB ARC
  - GASB ARC amortization policy is open 30-year level percentage of pay
    - UAAL amortized as single layer regardless of source of UAAL
    - Open (or, "rolling") means the UAAL is re-amortized over a new 30-year period every year
    - Level percentage of pay means UAAL amortized with payments that increase each year by payroll growth assumption of 3.25%
    - Combination of open 30-year period and level percentage of payroll means:
      - Amortization payment does not even cover the interest on the UAAL let alone the principal (more on this later)

Three Funding Policy Components (continued)

➢ Current funding policy

Current ARC/ADC		ARC/ADC with Contribution Increases	
Employer Normal Cost	0.08%	Employer Normal Cost	(1.92%)★
30-year Amortization of UAAL	12.94	30-year Amortization of UAAL	12.94
ARC	13.02%	ARC	11.02%
Statutory Contribution	10.75	Statutory Contribution	12.75
Margin/(Deficit)	(2.27%)	Margin/(Deficit)	1.73% ★★

★ Member contribution increases by 2% so employer Normal Cost decreases by 2%

★★ With a 15-year amortization of UAAL and after reflecting all contribution increases, the deficit would be (4.86%)

Once all the contribution increases are phased in, the current funding policy based on the ARC generates a margin.

Actuarial Cost Method

- Policy considerations
  - Each member's benefit should be funded by the expected retirement date, assuming all assumptions are met
  - The Normal Cost for each member should be reasonably related to the expected cost of that member's benefit
  - Expected cost of each year of service emerges as a level percentage of member compensation
- Entry Age Normal (EAN) cost method is a model practice
  - Used by majority of public pension systems
  - Will be required for accounting purposes under new GASB statements
  - TFFR uses the EAN cost method
    - However, TFFR's Normal Cost is "Ultimate Normal Cost"

Actuarial Cost Method — Normal Cost Variations

- Model practice bases Normal Cost on each member's benefit
  - Known as "Traditional Normal Cost"
  - Is required under new GASB statements
- A variation is called "Ultimate Normal Cost"
  - Normal cost for all members is based on current open tier
    - For TFFR the current open tier is Tier 2
  - Normal Cost with all members valued under Tier 2 is lower than total Normal Cost based on each member's benefit
    - Remember, PVFB is allocated into Normal Cost and Actuarial Accrued Liability
    - So, if larger Traditional Normal Cost is used, Actuarial Accrued Liability decreases

Ultimate Normal Cost	
Actuarial Accrued Liability	$ 2,871.9 M
Funded Ratio	60.87%
Normal Cost ($)	$ 52.7 M
Normal Cost (% of pay)	9.83%

Traditional Normal Cost (est.)	
Actuarial Accrued Liability	$ 2,806.1 M
Funded Ratio	62.29%
Normal Cost ($)	$ 64.0 M
Normal Cost (% of pay)	11.94%

Asset Smoothing Methods - Objectives

- Policy objectives
  - Unbiased relative to market
    - Same smoothing period for gains and for losses
    - “Market value corridors” symmetrical around market value
      - For example, actuarial value of assets (AVA) cannot be less than 80% of market value of assets (MVA) nor more than 120% of MVA
    - Do not selectively reset at market value only when market value is greater than actuarial value
    - Do not selectively modify asset smoothing when investment returns fall short of the interest rate assumption
  - Incorporate the Actuarial Standard of Practice No. 44 (ASOP 44) concepts related to smoothing period and range from market value
    - AVA must be likely to return to MVA in a reasonable period
    - AVA must be likely to stay within a reasonable range of MVA

Asset Smoothing Methods

- Model practice
  - 5 year smoothing with no corridor
  - Consider adding a corridor in the event of extreme market volatility
  - 80%/120% or 70%/130%
- History of AVA/MVA ratio for TFFR

Valuation Date	Ratio of AVA to MVA
July 1, 2012	105.7%
July 1, 2011	105.6%
July 1, 2010	128.1%
July 1, 2009	145.1%

Amortization of Unfunded Actuarial Accrued Liability

- Source of Unfunded Actuarial Accrued Liability (UAAL/NPL)
  - Gains / losses
  - Assumption or method changes
  - Plan changes
- Amortization method
  - Level dollar amount
    - UAAL is amortized like a mortgage
      - Payment is the same each year (level)
      - $1.5 million, $1.5 million, $1.5 million, etc.
  - Level percentage of payroll
    - UAAL is amortized with payments that increase each year
    - Annual increase in payment is based on payroll growth assumption (i.e., 3.25%)
    - $1 million, $1.0325 million, $1.066 million, etc.
    - UAAL continues to grow as payments are less than interest on the UAAL

Amortization of Unfunded Actuarial Accrued Liability (continued)

- Open ("Rolling") versus Closed Amortization Period
  - Open means the UAAL is re-amortized over a new 30-year period every year
    - Like refinancing your home with a new 30-year mortgage every year
    - Allowed by GASB and viewed as a standard funding policy based on idea that governments are perpetual
      - Became widely accepted practice
  - Closed means the UAAL will be fully amortized over the 30-year period
    - Like a 30-year mortgage – your home will be paid off after 30 years
  - TFFR periodically changes the amortization method based on existing environment
    - Time to revisit again

Amortization of Unfunded Liability – Objectives

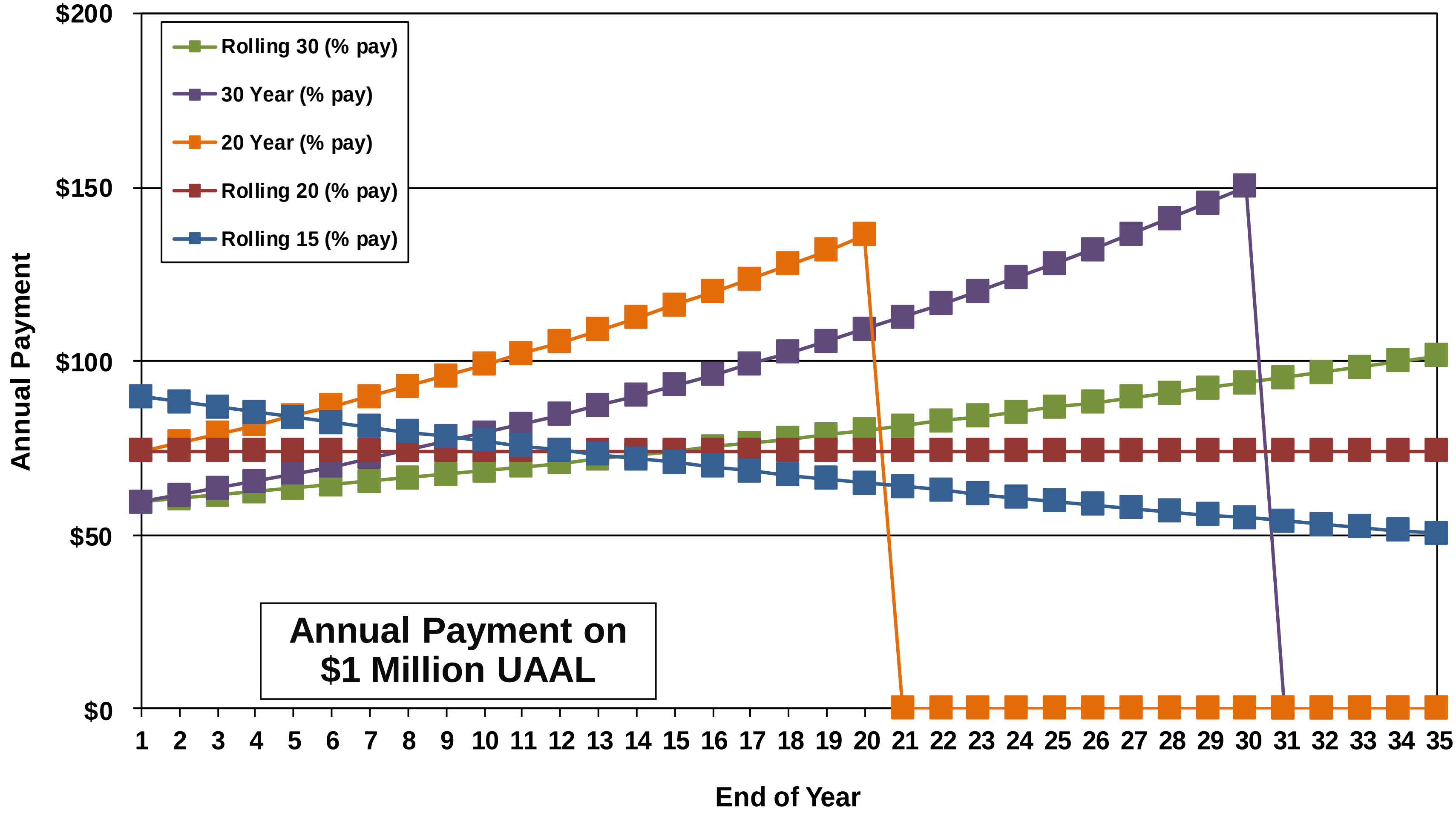
- Policy objectives
  - Amortization period should balance intergenerational equity against goal of keeping contributions level as a percentage of compensation
  - Policy should explicitly consider the following, even if all treated the same way:
    - Experience gains and losses
    - Changes in assumptions and methods
    - Benefit or plan changes
  - Explicitly consider level and duration of negative amortization
  - Consider policies that:
    - Reflect a history of the sources and treatment of UAAL
    - Provide for a full amortization date
  - Separately consider treatment of surplus amortization

Illustration of Amortization Methods

8.00% interest 3.25% salary incr.	Rolling 30 % of pay	Closed 30 years % of pay	Closed 20 years % of pay	Rolling 20 years % of pay	Rolling 15 years % of pay
Increase in AAL	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Amortization factor	16.8386	16.8386	13.4887	13.4887	11.1564
Amortization amount					
Year 1	$ 59,387	$ 59,387	$ 74,136	$ 74,136	$ 89,635
Year 15	$ 74,025	$ 92,930	$ 116,009	$ 74,067	$ 70,702
Year 20	$ 80,085	$ 109,045	$ 136,126	$ 74,042	$ 64,957
Year 25	$ 86,641	$ 127,954	$ -	$ 74,017	$ 59,679
Year 30	$ 93,734	$ 150,143	$ -	$ 73,992	$ 54,830
Year 50	$ 128,407	$ -	$ -	$ 73,892	$ 39,067
Total amount paid					
Principal	$ (1,196,504)	$ 1,000,000	$ 1,000,000	$ 3,356	$ 571,475
Interest	5,676,255	1,942,624	1,043,512	3,697,360	2,476,602
Total	$ 4,479,751 ☆	$ 2,942,624	$ 2,043,512	$ 3,700,717 ☆	$ 3,048,078 ☆

☆ Total amount for first 50 years shown here; payments will continue on indefinitely

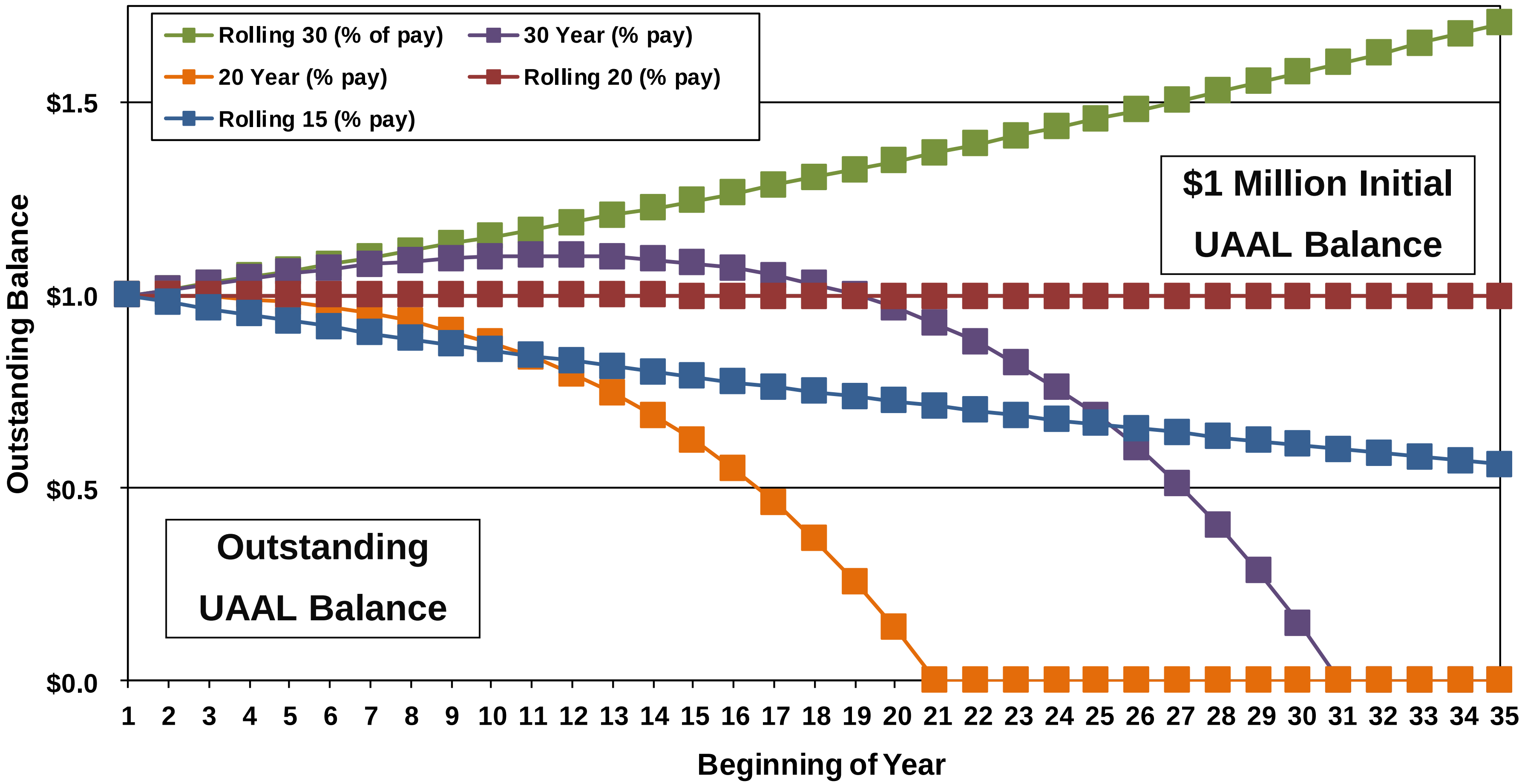
Illustration of Amortization Periods – Annual Payment ($ in 000s)



Negative Amortization

- $1,000,000 liability, 8.00% interest
- First year interest only is $80,000
- With level dollar payments, payments are always greater than interest
- With level percentage of payroll payments, early payments can be less than interest
  - UAAL continues to increase
  - Eventually larger payments may cover interest plus increased UAAL
    - Unless using a rolling/open amortization period greater than 15-20 years

Illustration of Amortization Periods – Outstanding UAAL Balance ($ in millions)

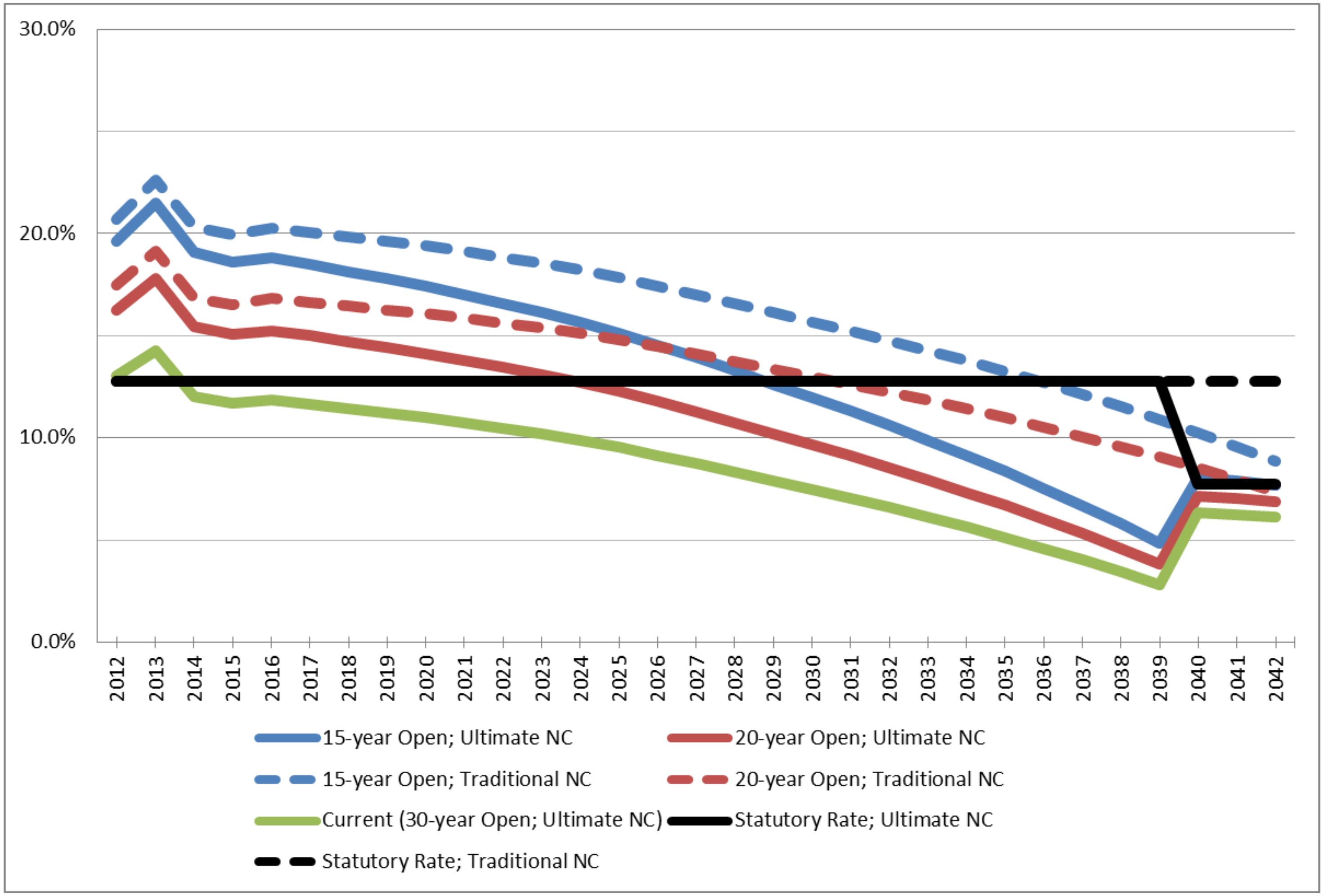


Summary of Funding Policy Elements

- Actuarial cost method
  - Recommend continued use of entry age normal
  - Consider “traditional” versus “ultimate” normal cost
- Amortization period
  - Options to consider
    - 15 to 20 year rolling for entire UAAL
    - 20 to 30 year closed for entire UAAL
- Asset smoothing method
  - Recommend continued use of 5 year smoothing period
  - Consider use of 20% MVA corridor

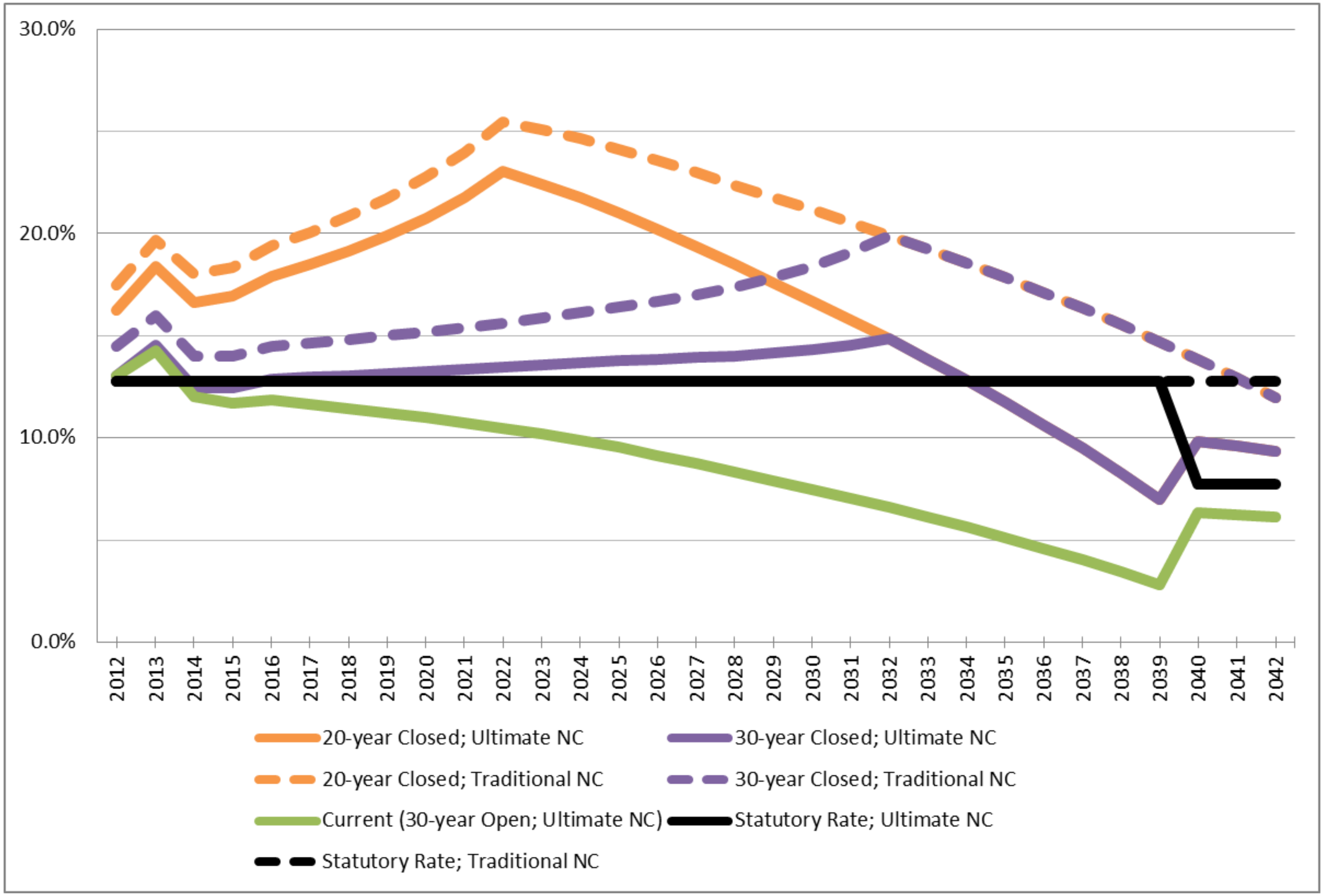
ADC Options Using Open Period Amortization

- Open period amortization, comparing both Ultimate and Traditional methods



ADC Options Using Closed Period Amortization

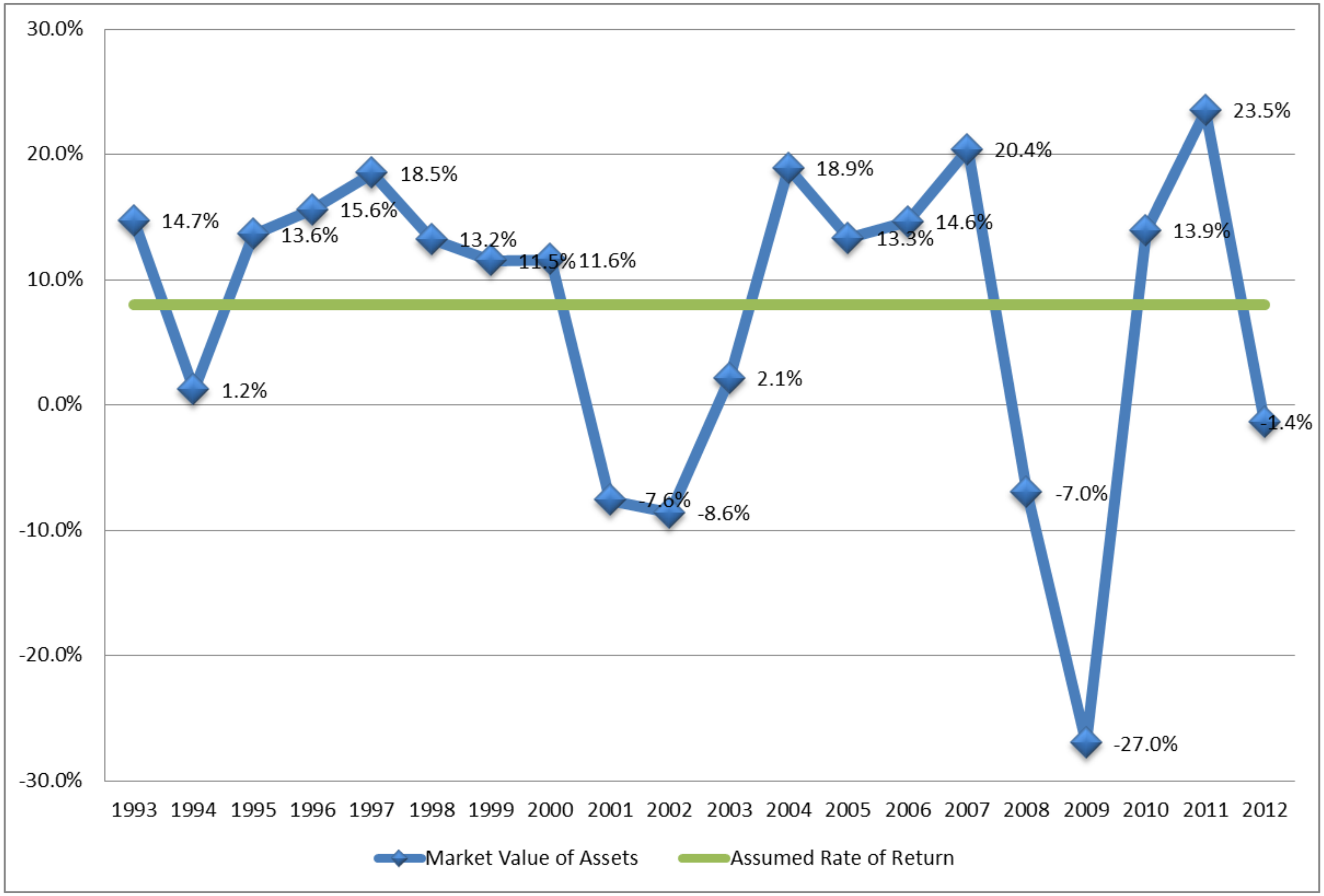
- Closed period amortization, comparing both Ultimate and Traditional methods



Closed period declines to 10 years, where it is assumed to operate as 10-year rolling thereafter.

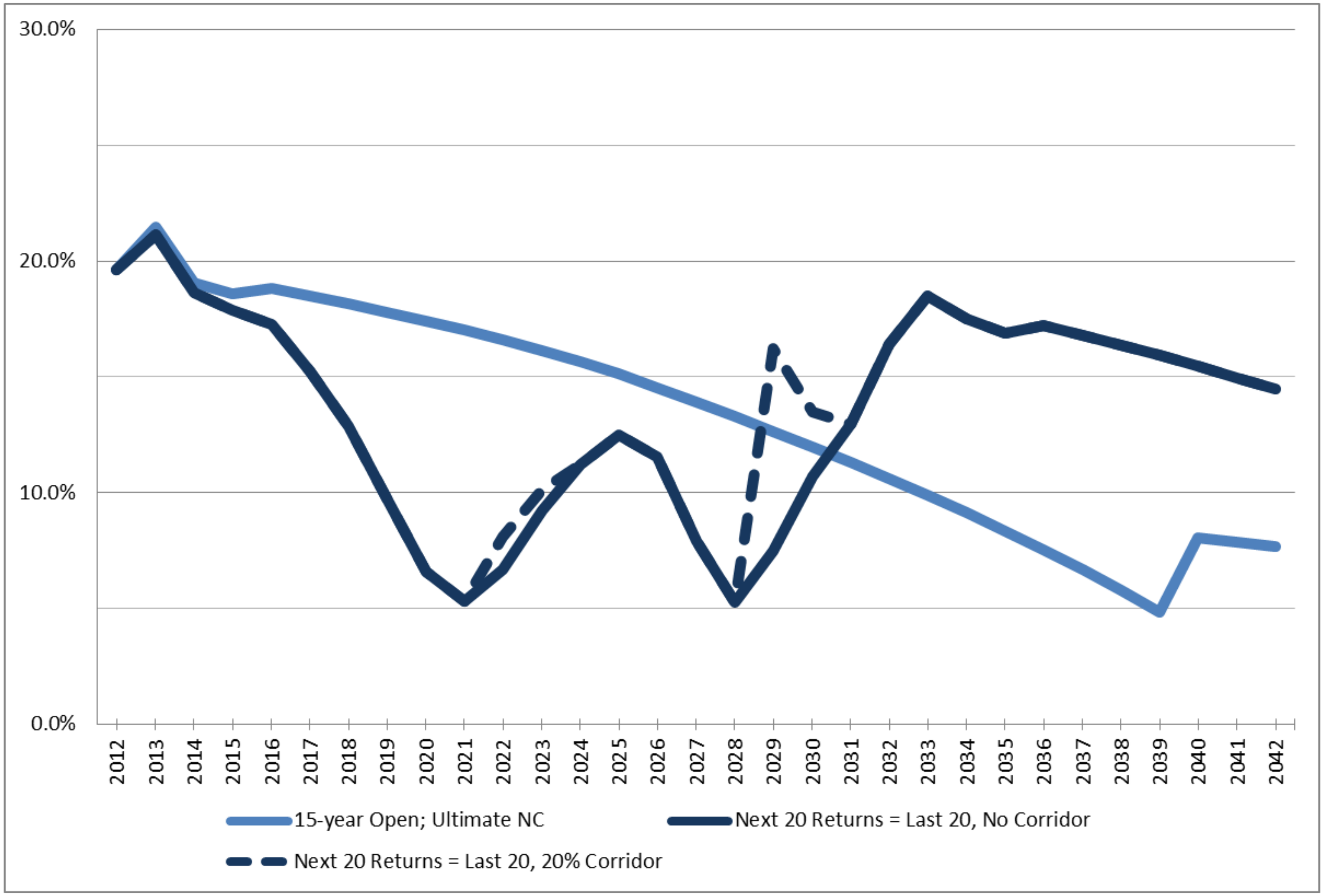
20-Year History of Market Value Investment Returns

➢ Average return over past 20 years is 7.0% with significant volatility recently



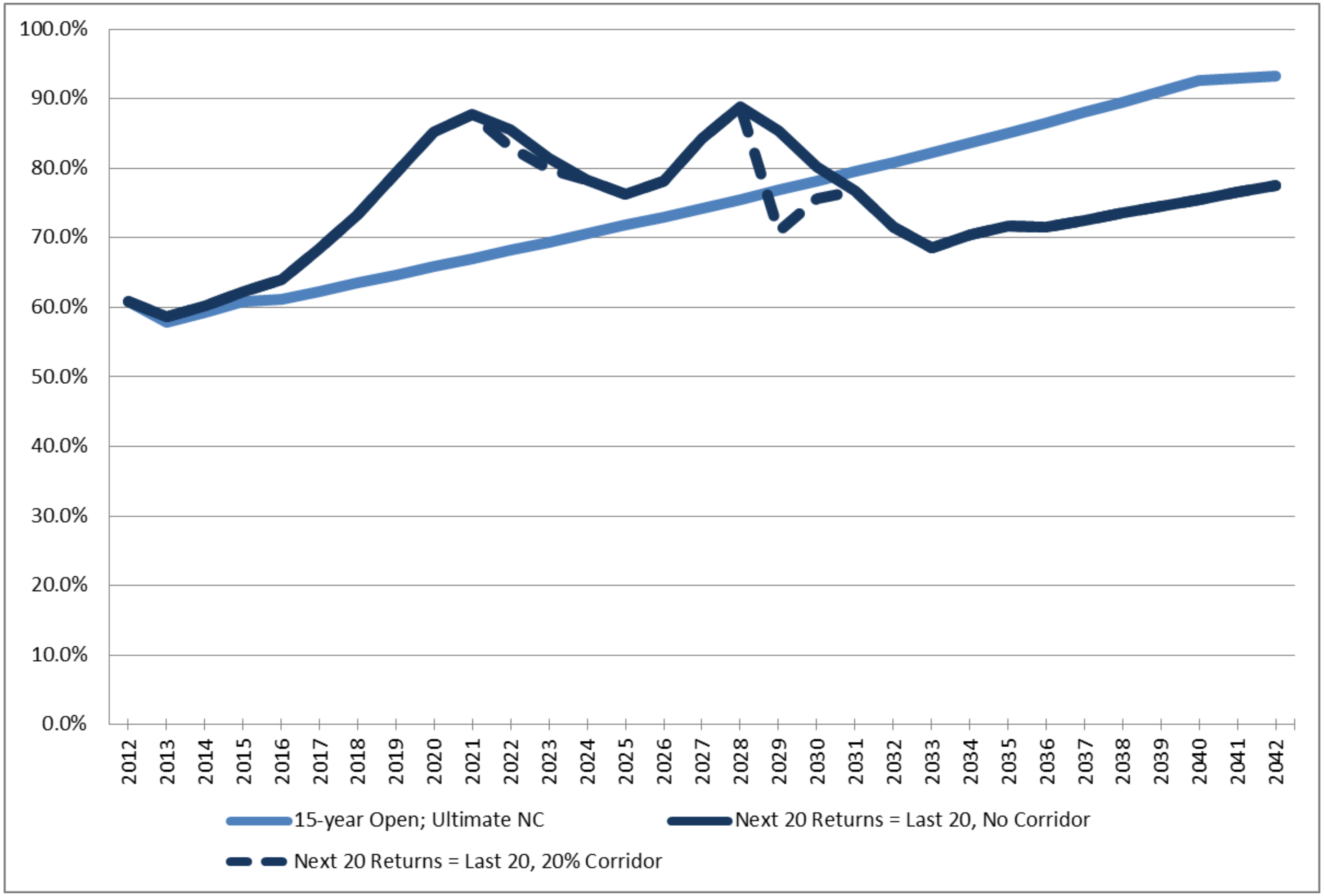
ADC Volatility – 15-year Open Amortization and Ultimate Normal Cost Method

- Next 20 investment returns equal to prior 20 years (7/1/92 – 6/30/12), 8% thereafter
  - With and without 20% corridor on MVA



Funded Percentage Volatility – 15-year Open Amortization and Ultimate Normal Cost Method

- Next 20 investment returns equal to prior 20 years (7/1/92 – 6/30/12)
  - With and without 20% corridor on MVA



Questions?

SEGAL **Public Sector Letter**

Benefits, Compensation and HR Consulting NOVEMBER 2011

Planning a Successful Pension Funding Policy

With governmental budgets under strain across the country, officials are taking a careful look at what their pension plan costs are today and where those costs are likely to head in the future. Decision makers are busy crafting plans to ensure they will be able to meet their current and future obligations.

But how can stakeholders be assured that their plan's funding approach will result in adequate assets to pay benefits? Reviewing and, if necessary, updating the plan's funding policy is a good first step.

A pension plan funding policy determines how much should be contributed each year by the employer and the active participants to provide for the secure funding of benefits in a systematic fashion.[1] This *Public Sector Letter* explores important considerations that stakeholders should keep in mind when evaluating their plan's funding policy.

Goals of a Pension Plan Funding Policy

A comprehensive funding policy seeks to ensure that a pension plan is on track to achieve three key goals:

- *Contribution and Budgetary Predictability* This goal, which is so important to governmental employers, can be achieved if the funding policy is purposely designed to develop costs that are expected to bear a reasonable relationship to payroll. This includes designing a funding policy so as to manage and control contribution volatility. It is also essential that contributions be based upon actuarial assumptions — demographic and economic — that reflect best estimates of future experience. The process of setting assumptions generally involves policy considerations separate from setting funding policy. The text box on page 2 provides a brief discussion on setting assumptions.
- *Benefit Payment* The payment of benefits is the reason the plan exists. For that reason, funding policies are designed to accumulate assets over time to provide for all benefits to be earned by current participants in the plan. This includes benefits for current retirees and beneficiaries, benefits already earned by current active participants and future benefits to be earned by those current participants. Generally, this key goal is what is meant by having an actuarially determined funding policy, one that is based on actuarial principles.
- *Intergenerational Equity* This goal, which consists of ensuring a fair sharing of the costs of the plan across generations of taxpayers, will be achieved if the funding policy ensures a reasonable allocation of the cost of benefits provided by the plan to the years of service worked by employees. In particular, a funding policy can help ensure that the cost of benefit improvements is recognized and paid for during the working careers of those who will receive them.

IN THIS ISSUE:

To some extent, there may be trade-offs involved in meeting all three of these goals simultaneously, but a well-crafted funding policy will ensure that its various elements, working in combination, contribute to the achievement of these important objectives.

Elements of a Funding Policy

To achieve all three of the policy goals described above (management of contribution volatility, funding based on actuarial principles, and intergenerational equity), a comprehensive and well-designed funding policy will include the following three elements:

- An actuarial cost method,
- An asset-smoothing method, and
- An amortization policy.

"A pension plan funding policy determines how much should be contributed each year by the employer and the active participants to provide for the secure funding of benefits in a systematic fashion."

[1] Another timely reason for this discussion involves the Governmental Accounting Standards Board (GASB). GASB's proposed revisions to accounting standards for public plans and their sponsors include fundamental changes in guidance related to funding policy. The nature and consequences of GASB's changing role regarding funding policy are discussed on the last page of this *Public Sector Letter*.

Of course, any funding policy will only be as effective as **the sponsor's commitment to make plan contributions on time and in full.** Contributions are often made in accordance with a plan's funding policy. However, in some instances, plan sponsors' annual contribution rates are fixed in statute or determined in some other manner other than by strict adherence to a funding policy. Fixed contributions, in particular, can pose risks, especially when the plan has a limited ability to adjust benefits. Even in cases where the contribution rate, as originally established, was actuarially determined, if changes in the plan or plan experience occur (*e.g.*, benefit improvements, mortality improvements and/or asset losses), the fixed contribution rate may no longer be sufficient for the plan to achieve its goal of paying all benefits when due. The result could be a rapid escalation in actuarially required contributions, thereby adding to the sponsor's fiscal commitments.

The next three sections of this *Public Sector Letter* are devoted to each of the three elements of a funding policy.

The Role of Assumptions in Plan Funding

Aside from funding methods, assumptions are also critical to the funding of a plan. Forward-looking assumptions about plan demographics, wages, inflation, investment returns and more drive the measurement of pension liabilities and costs, and therefore affect funding. Unlike the selection of funding methods, which involves a fair degree of policy discretion, the selection of assumptions should be based solely on best estimates of actual future experience. While it may be tempting to set assumptions based on how they might affect current contribution requirements, such "results-based assumption setting" should be avoided. It is the plan's actual experience that ultimately determines the cost of the benefits, so the assumptions should try to anticipate actual experience.

Periodic reexamination of plan assumptions is an essential part of any plan's actuarial processes. As a general rule, many plans conduct an experience study every three to five years, an interval that should help ensure that assumptions remain appropriate in the face of evolving conditions and experience. In the current environment, certain assumptions may be worth extra scrutiny.

For example, when it comes to payroll growth, ask the question, "do changes in demographics of the workforce suggest future changes in payroll growth rate?" Typically, plans have an indefinite, open-ended assumption about payroll growth — for instance, that head count will remain stable and that payroll dollars will grow by 3 percent to 4 percent per year, indefinitely. However, during periods when the workforce contracts and/or when annual pay increases disappear because of fiscal strain, the payroll growth assumption may not prove accurate. This creates a risk that plan costs (as a percent of payroll) will escalate, especially in cases where a substantial unfunded actuarial accrued liability (UAAL)* exists.

Another assumption that might be ripe for reexamination is the expected investment return. Here the question is, "do changes in asset allocation or in financial markets suggest a reevaluation of the plan's long-term earnings prospects?" Here again, making an assumption change — and absorbing any cost increases up front — might head off an unwelcome upward trend in plan costs down the road.

A third example is mortality improvements. Does the plan proactively account for the costs that will be associated with the trend towards future increases in life expectancy? Factoring in these likely costs will avoid cost increases in the future and so help to ensure that costs will be more equitably allocated over time.

These are just a few examples of how careful consideration of plan assumptions can avoid unwelcome surprises down the road.

* UAAL is discussed on pages 3 and 4.

Actuarial Cost Method

The actuarial cost method is the means by which the total present value of all future benefits for current active and retired participants is allocated to each year of service (*i.e.*, the "normal cost" for each year) including past years (*i.e.*, the "actuarial accrued liability"). There are several available actuarial cost methods, but most governmental plans use the entry age normal (EAN) cost method while a significant minority use the projected unit credit (PUC) method.

Although the EAN and PUC cost methods are both considered reasonable under actuarial standards of practice and current GASB rules in most circumstances, it is important for plan stakeholders to understand the implications of either method. EAN tends to recognize actuarial liabilities sooner than PUC, and it also tends to result in a more stable normal cost pattern over time, even in the face of demographic shifts. The more stable normal cost pattern over time

"The actuarial cost method is the means by which the total present value of all future benefits for current active and retired participants is allocated to each year of service....including past years."

should help in reducing the risk of higher levels of future contributions.

Under the PUC method, the plan's normal cost is the present value of the benefits "earned" during the year, but based on projected pay levels at retirement. For an individual participant, the PUC normal costs increase each year because the present value increases as the participant gets a year closer to retirement. In contrast, under the EAN method, the normal cost is specifically determined to remain a level percentage of pay over each participant's career.

Because EAN normal cost rates are level for each participant, the normal cost pattern for the entire plan under EAN is more stable in the face of demographic shifts in the workforce. It is this normal cost stability that makes the EAN method the preferred funding method for public plans. Also, GASB has recently reaffirmed their tentative decision to require governmental plans to base their financial statement reporting on the EAN method. This requirement will occur when GASB's proposed changes to financial statement reporting are effective, which is currently scheduled for as early as 2012-2013 fiscal years.

Asset-Smoothing Method

The next element of a comprehensive funding policy is the asset-smoothing method. Because investment markets are volatile and because pension plans typically have long investment horizons, asset-smoothing techniques can be an effective tool to manage contribution volatility and to provide a more consistent measure of plan funding over time. Asset-smoothing methods reduce the effect of short-term market volatility on contributions while still tracking the overall movement of the market value of plan assets, by recognizing the effects of investment gains and losses over a period of years.

"Asset-smoothing methods reduce the effect of short-term market volatility on contributions while still tracking the overall movement of the market value of plan assets, by recognizing the effects of investment gains and losses over a period of years."

Determining the ideal asset-smoothing policy involves balancing the two goals of ensuring fairness across generations of taxpayers and controlling contribution volatility for plan sponsors. A very long smoothing period will greatly reduce contribution volatility, but this may mean current taxpayers are deferring the cost of recent investment experience to future taxpayers. However, a very short smoothing period (or none at all) may result in contribution requirements that fluctuate dramatically from year to year.

Such volatility may also result from an asset-smoothing method that constrains how far the smoothed value can get away from the market value by imposing a market value "corridor." A corridor is typically expressed as a ratio of the smoothed value of assets to the market value of assets.

Actuarial standards of practice and related actuarial studies seek to identify asset-smoothing methods that achieve a reasonable balance between how long it takes to recognize investment experience (the smoothing period) and how much smoothing is allowed in the meantime (the corridor). The resulting smoothing periods are in the range of three to 10 years (with five the most common) and a corridor wide enough to allow the smoothing method to function except in the most extreme conditions. Furthermore, the corridor generally should narrow as the smoothing period gets longer, so there is a trade-off between longer smoothing periods (which reduce volatility) and narrower corridors (which can increase volatility after a large investment loss or gain).[2]

UAAL Amortization Policy

The third element of a funding policy concerns amortization of the unfunded actuarial accrued liability (UAAL). This policy element determines how current and future UAAL will be paid off or "amortized," and so includes how changes in benefits or actuarial assumptions that affect the actuarial accrued liability should be funded over time. Even more so than asset-smoothing methods, amortization policies involve a balance between controlling contribution volatility and ensuring a fair allocation of costs among generations. Longer amortization periods help keep contributions stable, but excessively long periods may inappropriately shift costs to future generations. In seeking to achieve a "sweet spot" between these two important policy

"Even more so than asset-smoothing methods, amortization policies involve a balance between controlling contribution volatility and ensuring a fair allocation of costs among generations."

[2] Asset-smoothing methods, including the relationship between smoothing period and market value corridor, are governed by Actuarial Standard of Practice No. 44, Selection and Use of Asset Valuation Methods for Pension Valuations, which can be accessed from the following page of the Actuarial Standards Board's website: http://www.actuarialstandardsboard.org/asops.asp In particular, see Sections 3.3 and 3.4.

goals, a comprehensive amortization policy will involve the following distinct elements:

- Payment basis,
- Payment structure, and
- Amortization period.

Each of these elements is discussed individually in the following paragraphs.

Payment Basis: Level Dollar vs. Level Percent of Pay

One of the first considerations is whether amortization payments will be set at a level dollar amount (similar to a home mortgage) or as a level percent of pay. The great majority of public pension plans use level-percent-of-pay amortization where the payments toward the UAAL increase each year at the same rate as is assumed for payroll growth. Compared with the level-dollar approach, payments start at a lower dollar amount under the level percent approach, but then increase in proportion to payroll until they are higher.

The level-dollar method is more conservative in that it funds the UAAL faster in the early years. However, the level-percent-of-pay approach is consistent with the pay-related structure of benefits under most public plans. Moreover, because the normal cost is also determined as a level percent of pay, level percent amortization provides a total cost that remains level as a percentage of pay. In contrast, level-dollar amortization of UAAL will produce a total cost that decreases as a percentage of pay over the amortization period. A plan should balance these considerations in choosing between level-percent and level-dollar amortization.

Payment Structure

Amortization policy must also consider how amortization payments should be structured. For example, should the entire UAAL be aggregated and amortized as a single amount, or should the plan track multiple "layers" for each source of UAAL or surplus each year, and amortize these separately? Should the amortization period be fixed or should it be open or "rolling" (with the amortization period restarted each year)? For plans using amortization layers and fixed periods, is it ever appropriate to "restart" with a single amortization layer or otherwise combine the layers?[3]

"Although use of a single amortization layer provides simplicity, use of separate amortization layers for each source of UAAL has the advantage of tracking separately each new portion of underfunding."

Although use of a single amortization layer provides simplicity, use of separate amortization layers for each source of UAAL has the advantage of tracking separately each new portion of underfunding. Under this approach, over time there will be a series of these layers, one for each year's gain or loss as well as for any other changes in UAAL. This is perfectly manageable and in fact provides useful information to stakeholders, as they can view the history of the sources of a plan's UAAL in any year. In practice, the number of layers will be limited by the length of the amortization period as eventually layers are fully amortized, and so are no longer part of the UAAL.

Fixed amortization periods identify a date certain by which each portion of the UAAL will be funded. This can be contrasted with open or rolling amortization, whereby the plan "resets" its amortization period every year. This is analogous to a homeowner who refinances his mortgage each year. Although both methods are common in current practice, fixed amortization periods have the advantage of providing stakeholders with a clearer understanding of the ultimate funding target (full funding) and the path to get there. It is the structure required for private sector pensions, and is increasingly common for public pension plans.

There may be conditions where a plan would want to consider action whereby all the amortization layers are wiped out ("considered fully amortized") and the series is restarted — for example, when the system goes from surplus to UAAL, or from UAAL to surplus. There are other situations when the amortization layers might be restarted or combined. One is when there are alternating years of gains and losses of relatively equal size. In general, plans should reserve the right to restart or otherwise combine the amortization layers whenever appropriate circumstances arise. However, plans using fixed amortization periods should avoid restarting the amortization periods so often that the policy in effect becomes rolling amortization.

Amortization Period

Once the amortization policy has determined the basic structure of payments (*e.g.*, level percent of pay, multiple closed layers), the question becomes, "What is the appropriate period of time over which amortization should occur?" The answer can depend on the source of the UAAL being amortized, as discussed below:

- ***UAAL Due to Actuarial Gains/Losses*** Actuarial gains and losses arise when there is a difference between the actuary's estimates (assumptions) and the actual experience of the plan. They can result

[3] Note that depending on plan experience there can be some contribution volatility when gain and loss layers are fully amortized. This can be avoided by selectively combining offsetting gain and loss layers, without affecting the overall amortization periods.

from demographic experience (*e.g.*, the number of new retirees is higher or lower than expected), investment experience (*e.g.*, returns that are higher or lower than expected), or other economic experience (*e.g.*, payroll growth that is higher or lower than expected). In determining the appropriate period for amortizing gains and losses, plan sponsors should strike a balance between reducing contribution volatility (which would lead to longer amortization periods) and maintaining a closer relationship between contributions and routine changes in the UAAL (which would lead to shorter amortization periods). For many plans, amortization periods in the range of 15 to 20 years for gains and losses would assist plans in achieving a balance between these objectives. This "sweet spot" would also reduce or avoid negative amortization, which is discussed in the accompanying text box.

- ***UAAL Due to Changes in Actuarial Assumptions*** Assumption changes (*e.g.*, a modification to the mortality assumption to anticipate future improvements in life expectancy) will result in an increase or decrease in the UAAL. Unlike gains and losses, which reflect actual past experience, assumptions are modified when future expectations about plan experience change. This amounts to taking the effect of future expected gains or losses and building it into the cost today. For that reason, and because of the long-term nature of assumption changes, a plan could be justified in using a longer amortization period than that used for actuarial gains or losses, perhaps in the range of 15 to 25 years.

- ***Amortization of UAAL Due to Plan Amendments*** Because plan amendments are under the control of the plan sponsor, managing contribution volatility is generally *not* a consideration for plan amendments. This means that the primary rationale in selecting the period is to support intergenerational equity by matching the amortization period to the demographics of the participants receiving the benefit. This leads to shorter, demographically based amortization periods. For active participants, this could be the average future working lifetime of the active participants receiving the benefit improvement, while for retirees, this could be the average life expectancy of the retired participants receiving the benefit improvement. This approach would usually result in no longer than a 15-year amortization period for benefit improvements. This is a change from past practice when many plans used a long (*e.g.*, 30-year) period for amortizing the effect of plan amendments.

  It is also advisable to consider any special circumstances that may apply to a specific benefit improvement in determining the appropriate amortization period. For example, early retirement incentives or "windows" generally call for much shorter amortization periods, to better match the period of the economic impact of the retirement incentive.

- ***Amortization of UAAL Due to Surplus*** Although today, with most plans underfunded, the thought of amortizing surpluses may seem irrelevant, the need for caution in treatment of such accumulated gains should be remembered, even if it may be many years before plans actually need to deal with this situation. One of the most significant changes in industry thinking and practice to come from the market experience around the turn of the 21st century is the way surplus is recognized in public pension funding policy. By the late 1990s, as many plans came close to being fully funded or even overfunded,

Negative Amortization

An equitable amortization policy should ensure that the UAAL will be paid off in a reasonable period of time. Long amortization periods can make paying down the UAAL appear more affordable, but, because interest charges accrue and compound on the unpaid UAAL, it is prudent to set amortization periods that are not excessively long. This is especially important where level percent of pay amortization is being used.

With long amortization periods, the UAAL may increase during the early years of the amortization period, even though contributions are being made to amortize the UAAL. This phenomenon, known as "negative amortization," occurs only with level percent of pay amortization. This can happen because, under level percent of pay amortization, the lower early payments can actually be less than interest on the outstanding balance, so that the outstanding balance increases instead of decreases. For typical public plans, this happens whenever the average amortization period is longer than about 16 to 18 years.

While there is nothing inherently wrong with negative amortization in the context of a public plan, stakeholders should be aware of its consequences, especially for amortization periods substantially longer than 20 years.

Negative amortization is of particular concern for plans using open, or rolling, amortization periods. As described above, plans that use open/rolling amortization method "reset" to a new amortization period every year. By contrast, a plan using closed amortization commits to paying down the UAAL over a fixed period.

there was a trend toward amortization periods as short as 10 or even five years. This led to rapid reductions in contributions (to levels even below normal cost) when the large investment gains from that period were recognized over such short periods. The investment losses in the early 2000s abruptly reversed this situation, leading to rapid cost increases. The general conclusion from this experience was that a contribution level less than the normal cost should always be viewed with caution, as ultimately the normal cost will reemerge as the basic cost of the plan. One possible response would be to require that contributions never fall below the normal cost level. However, that would be inconsistent with the actuarial principle that funding policy should target 100-percent funding, and not sustain a level that is either higher or lower than 100 percent. That leads to the general conclusion that surplus should be amortized, but over very long periods such as 30 years.

Each of these potential sources of UAAL deserves individual consideration in setting an amortization policy.

The GASB Effect: Funding Policy in the Spotlight

The Government Accounting Standards Board's proposed revisions to pension accounting standards are also bringing renewed attention to funding policy. First, GASB is proposing a separation of accounting from funding, so that the old rules for determining pension expense will no longer serve as a *de facto* standard for funding policy. Second, GASB is proposing that plans disclose the basis and amount for their "actuarially calculated employer contributions," along with a schedule showing whether those "ACEC" amounts were actually funded. In effect, GASB is leaving it to the plans to develop a funding policy but still requiring comprehensive disclosure of the operation of such a policy. Finally, a key technical point: GASB's new method for setting the discount rate involves a projection of plan assets, including employer contributions "based on current contribution policies and practices."[4] These GASB-related considerations make a review of a plan's funding policy all the more timely.

> "The Government Accounting Standards Board's proposed revisions to pension accounting standards are also bringing renewed attention to funding policy."

Conclusion

A comprehensive funding policy is critical to navigating the rough waters surrounding pensions in the current environment. This *Public Sector Letter* identifies some goals and targets to aim for as well as some pitfalls to avoid. A careful review of the approach to funding will enable stakeholders to gain a clearer understanding of costs and to develop a realistic plan to pay these over time.

Funding policies can be modeled under alternative future circumstances that affect valuation results, such as investment returns, demographic changes, or liquidity requirements. Available tools range from a simple sensitivity analysis to a full asset and liability modeling. This latter type of review provides a range of outcomes as to how funding might be impacted under different economic circumstances and can assist in setting both investment strategies and funding policy.

Now is an appropriate time for a funding policy review. In many cases, stakeholders will be reassured about the path they have been following. In others, trustees and plan sponsors may discover that the commitments they have made in the past will require greater contributions. Still others may find that their commitments are no longer affordable and that benefits need to be reevaluated. In any of these scenarios, officials may also conclude that having a comprehensive statement of their funding policy in a single document is advantageous. A well-conceived funding policy can do more than ensure a well-funded plan; it can enlighten benefit policy, an issue that will be discussed in greater detail in a future *Public Sector Letter*.[5]

■ ■ ■

For more information about funding public pension plans, contact your Segal Company consultant or one of the following experts:

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[4] For information about GASB's Exposure Draft, see The Segal Company's August 2011 *Bulletin*: http://www.segalco.com/publications/bulletins/aug2011GASB.pdf

[5] Sponsors of public sector pension plans might also be interested in Segal's June 2011 *Public Sector Letter*, "Actual Cost vs. Market Price: Does Market Valuation of Pension Liabilities Fit the Public Sector?": http://www.segalco.com/publications/publicsectorletters/june2011.pdf

MEMORANDUM

TO: **TFFR Board**

FROM: **Fay Kopp**

DATE: **October 18, 2012**

SUBJ: **GASB, Moody’s, and other national pension issues**

Two new accounting statements recently approved by the Governmental Accounting Standards Board (GASB) will change the accounting and financial reporting of public employee pensions by state and local governments. Previous educational sessions have been presented to the Board describing the new way governments will calculate and report the costs and obligations associated with pensions. Pension plans and participating employers will need to soon begin preparing for the changes.

Additionally, Moody’s Investor Services has now proposed adjustments to the pension liability and cost information reported by state and local governments and their pension plans. The proposed adjustments, which Moody’s would calculate, are intended to improve the comparability of pension information across governments and facilitate the calculation of combined measures of bonded debt and unfunded pension liabilities in Moody’s credit analysis.

Kim Nicholl, Segal Company, will update the Board on these changes which are expected to have a significant impact on the State, as well as local governments and school districts.

Enclosures

NORTH DAKOTA
RETIREMENT AND
INVESTMENT OFFICE
Teachers' Fund for Retirement
State Investment Board

NORTH DAKOTA TEACHERS' FUND FOR RETIREMENT

GASB Statements 67 and 68 and Moody's Proposed Adjustments to Pension Liabilities and Costs

October 25, 2012

Kim Nicholl, FSA, MAAA, FCA, EA
Matthew Strom, FSA, MAAA, EA

 #5297239_1




SEGAL

What Will the New GASB Requirements Mean for TFFR?

- GASB 67 provides for accounting with respect to TFFR (replaces GASB 25)
  - Effective for fiscal year July 1, 2013 to June 30, 2014
- GASB 68 provides for financial reporting by employers with respect to TFFR (replaces GASB 27)
  - Effective for fiscal year July 1, 2014 to June 30, 2015
- Net Pension Liability reported on the employer's balance sheet and in TFFR's notes to the financial statements
  - Entry age cost method
  - Market value of assets
  - Blended discount rate
- Accounting and financial reporting divorced from contribution requirements
- Annual pension expense (for employers) is essentially equal to change in Total Pension Liability during the year, with deferrals of certain items

Net Pension Liability Reported on Financials

- Net Pension Liability (NPL)
  - Total Pension Liability minus market value of assets (Plan Net Position)
- NPL is required to be reported in TFFR's footnotes and the employer's balance sheet
- NPL is calculated using:
  - A new blended discount rate
  - "Entry age" (traditional) actuarial cost method
    - TFFR's current actuarial cost method is entry age, but using the "ultimate normal cost" approach
  - Market value of assets
    - TFFR's current actuarial value of assets is based on five-year smoothing of investment gains and losses

Net Pension Liability Reported on Financials *continued*

- Discount rate is based on projected benefits, current assets, and projected assets for current members
  - Projected assets include contributions on behalf of current members and **exclude** contributions intended to fund the service cost for future employees
- For projected benefits that are covered by projected assets
  - Discount using the long-term expected rate of return on assets
  - TFFR's long-term rate of return is 8%
- For projected benefits that are **not** covered by projected assets
  - Discount using yield on 20-year AA/Aa tax-exempt municipal bond index
  - As of June 30, 2011, rate is 4.59%
  - As of June 30, 2012, rate is 3.95%
- Solve for a single rate that gives the same total present value
  - Use that single equivalent rate to calculate the Total Pension Liability (TPL)

Expense and Funding Will Be Divorced

- New GASB pension expense is the change in NPL each year (with certain deferrals described below)
  - Traditional entry age cost method is mandatory (TFFR uses "ultimate")
- Components of the new pension expense include:
  - Service cost (i.e., normal cost)
  - Interest on the Total Pension Liability (TPL) as of beginning of year
  - Changes in Total Pension Liability over the year (with certain deferrals)
    - Plan amendments recognized immediately
    - Changes in actuarial assumptions and actuarial gains and losses amortized over average expected remaining service lives of active **and** inactive members (including retirees)
    - Average expected remaining service for TFFR is about 7.5 years
  - Differences between actual and projected earnings over the year recognized in expense over closed 5 year period
  - Projected investment returns over the year
  - Employee contributions
  - Other changes in Plan Net Position (i.e., market value of assets)

What Will the Moody's Proposed Adjustments Mean for North Dakota?

- Moody's issued Request for Comment on its proposal to implement four adjustments to pension liabilities and cost information – Moody's will use this information to prepare bond ratings

- Proposed adjustments
  - Actuarial accrued liability would be discounted using a high-grade long-term corporate bond index rate
    - For adjustments to 2010 and 2011 pension data, discount rate would be 5.5% (TFFR's discount rate is 8%)
  - Assets smoothing would be eliminated – fair value required
  - Annual pension contributions
    - Based on 5.5% discount rate
    - Unfunded actuarial accrued liability would be amortized over 17 years as a level dollar amount
    - Current TFFR pension "ARC" based on 8% discount rate, and 30 year rolling amortization of unfunded as a level percentage of payroll

Moody's Proposed Adjustments to July 1, 2012 Valuation Results – Impacts State's Financials

2012 Valuation Results			Reflecting Moody's Adjustments	
Long-term discount rate	8.00%		Long-term discount rate	8.00%
Short-term discount rate	n/a		Short-term discount rate	5.50%
Actuarial Accrued Liability	$ 2.87 bil		Actuarial Accrued Liability	$ 3.89 bil
Actuarial Value of Assets	$ 1.75 bil		Market Value of Assets	$ 1.65 bil
Unfunded Liability	$ 1.12 bil		Unfunded Liability	$ 2.24 bil
Funded Percentage	60.9%		Funded Percentage	42.5%
Employer Normal Cost	$ 0.4 mil		Employer Normal Cost	$ 0.6 mil
Amortization Payment	$ 69.4 mil		Amortization Payment	$ 195.4 mil
Annual Contribution	$ 69.8 mil		Annual Contribution	$ 196.0 mil

Questions?

benefits
MAGAZINE

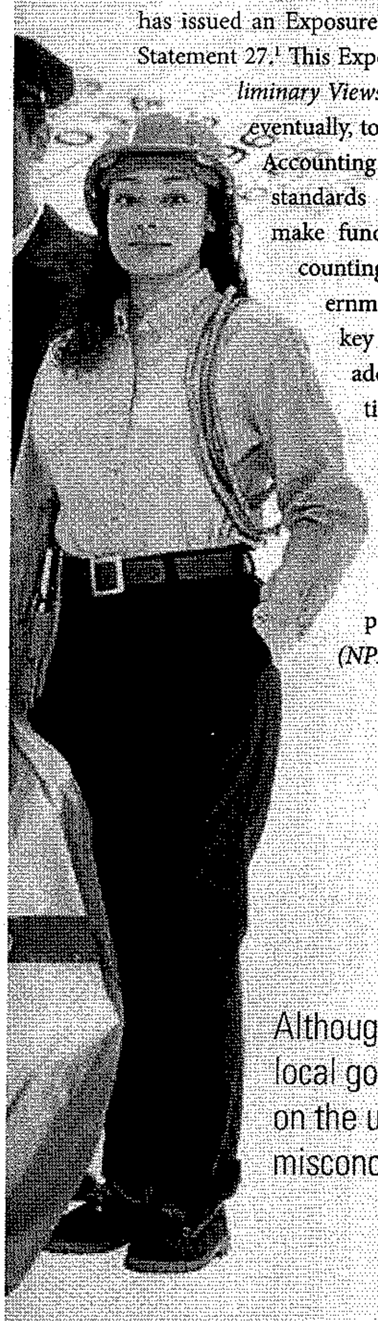
GASB's Proposed Changes to Pension Accounting Standards for Public Sector Employers

by | **Paul Angelo, Leon F. (Rocky) Joyner Jr. and Kim Nicholl**

For most benefits professionals, accounting standards and related items fly under the radar. Only when monumental changes are proposed—changes that could substantially affect how pension costs are reported and disclosed—does benefits accounting garner much attention beyond accountants and actuaries. Now, however, something is coming that may have a demonstrable impact on how the costs of governmental employee pension plans are understood. Because of this, benefits professionals should closely follow the developments described in this article, even though they might seem somewhat remote and complicated at first glance.

What's Going On

The Governmental Accounting Standards Board (GASB) has issued an Exposure Draft of an amendment to GASB Statement 27.[1] This Exposure Draft, which follows the *Preliminary Views* GASB released in 2010,[2] will lead, eventually, to a new Statement of Governmental Accounting Standards that would replace the standards in the current Statement 27 and make fundamental changes to pension accounting standards for state and local governments. This article summarizes the key proposals in the Exposure Draft, addresses two common misconceptions about the proposed changes and comments on the implications.



The following are GASB's major proposed changes:[3]

- The unfunded portion of the pension obligation would be reported as a *net pension liability*[4] *(NPL)* (total liability minus the value of plan net assets) on the balance-sheet portion of the employer's basic financial statements instead of in the notes that supplement those financial statements.
- If current and expected future plan assets (related to current plan participants) are insufficient to cover future benefit payments, the basis for discounting projected benefit payments to their present value would require using a "blended" discount rate. The long-term expected rate of return can be used to discount only those projected benefits that are covered by projected assets. Any projected benefits that are not covered by projected assets would be discounted using a high-quality municipal bond index rate.
- All plans would be required to use the entry age *normal cost allocation method* to determine the total liability as of the reporting period: Projected benefits are discounted to their present value as of employees' hire ages and then attributed to employees' expected periods of employment as a level percentage of projected payroll.
- Annual changes in NPL would have to be reported as pension expense as they occur and could no longer be deferred, except as noted in the next two bullets.
- The amortization period for recognizing changes in total pension liability for active and retired participants would be much shorter than the 30-year period currently allowed. Changes in retired members' liabilities and changes due to plan amendments for any participants would have to be expensed immediately. Changes in active members' liabilities (other than those due to plan amendments) would be amortized over the future working lifetimes of active participants.
- Differences between assumed and actual investment returns on pension plan assets would have to be recognized as pension expense over a five-year period rather

Although proposed changes in pension accounting standards for state and local governments may sound complicated, they will have an important impact on the understanding of pension costs. This article targets two common misconceptions and explains the implications of the changes.

<< bios

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Kim Nicholl is a senior vice president and consulting actuary for The Segal Company. She has actuarial and consulting experience with a wide variety of clients in the public sector. Nicholl earned a B.S. degree in mathematics from Loyola University and is a fellow of the Society of Actuaries, a member of the American Academy of Actuaries and an enrolled actuary under ERISA. She can be reached at knicholl@segalco.com.

than first being "smoothed" but then also being amortized as part of the unfunded liability.

- An employer participating in a cost-sharing multiple employer pension plan would report an NPL in its own financial statements based on its proportionate share of the collective unfunded liability for the entire plan. Currently, these employers have no such reporting obligation in statements, footnotes or schedules.
- Employers would be required to provide substantial additional disclosures, including a description of the plan, assumptions, policy for determining contributions, and a sensitivity analysis of the impact on NPL of a one percentage point increase and decrease in the discount rate. In addition, detailed information about the changes in the NPL for the past ten years is also required. For employers with plans that have an actuarially calculated contribution, information about the actuarially calculated contribution and the amount contributed would be required to be disclosed.

Common Misconceptions

Common misconceptions about GASB's proposed changes are discussed below:

- The "blended" discount rate is not based on the plan's current funded status, but rather on a projection of plan benefits and assets. That projection includes all future employer contributions that are intended to fund the benefits for current members, including payments toward any current unfunded liability. This means that even underfunded plans may get to use the long-term earnings rate to discount their liabilities, as long as they have a practice of making contributions to adequately fund their accrued liabilities.
- Another misconception is that GASB is requiring faster funding of any unfunded liabilities. As discussed below, GASB's new, shorter amortization rules apply only to pension expense and not to funding. Employers will have to disclose whether they are funding their actuarially determined contribution amounts, but those contributions can still be determined using current actuarial funding policies.

Implications

Current GASB standards base pension expense on the annual required contribution (ARC), which requires amortization of the unfunded liability over a period no greater than 30 years. Also, funded status does not appear in the financial statements, but does appear in the footnotes. If GASB adopts the proposals contained in its Exposure Draft as a final accounting standard, the consequences for state and local governments would be significant. Most notably:

- Reporting the NPL on the entity's financial statements (rather than just any unfunded ARC) would change the focus of the statements from the entity's commitment to fund its obligation to a funded status snapshot in time.
- Immediate recognition of changes in liability due to plan amendments and accelerated recognition of changes in liability due to actuarial gains and losses and changes in actuarial assumptions would result in a very different pension expense and will likely cause confusion between pension expense and pension funding. That is because the current expense requirement—the ARC noted above—serves as a standard for responsible funding.
- The prior point leads to the third major change, which may be the most important: delinking pension expense (the ARC) and pension funding. Under current GASB rules, the ARC serves as a de facto contribution standard. The creation of two different sets of "cost" numbers (a funding calculation determined by the plan that could remain fundamentally unchanged and a separate pension expense number) could have an unintended, detrimental effect on public attitudes about state and local government pension plans. At a minimum, it would cause confusion about which is the "true" cost.

Less significant implications would include the following:

- Projections of NPL would have to take into account ad hoc cost-of-living adjustments (COLAs) if an employer's past practice of granting ad hoc COLAs indicates that they have, in effect, become automatic.
- Although the valuation date would not need to be the employer's fiscal year-end, it would need to be a date no more than 24 months earlier. This would require each plan to project its pension obligation to the fiscal year-end, including any interim changes since the valuation date that affect the NPL.

Conclusion

Governmental entities across the country will be dealing with the aftermath of these proposed changes if they are adopted by GASB. These changes will clearly affect the financial reporting for almost all governmental employers. It is unclear what these changes will mean for bond ratings and the ability for governments to obtain credit. The long-term funding focus of Statements 25 and 27 will go away, to be replaced with an emphasis on a plan's funded status at a snapshot point in time. Individual governments would do well to model how their statements will look after the proposed changes are implemented.

Stay tuned. A final statement is expected in mid-2012 with phased-in effective dates based on asset size.

Endnotes

1. The Exposure Draft is available at www.gasb.org/cs/ContentServer?site=GASB&c=Document_C&pagename=GASB%2FDocument_C%2FGASB DocumentPage&cid=1176158723743.
2. See The Segal Company's July 2010 *GASB Bulletin*, available at www.segalco.com/publications/bulletins/july2010GASB.pdf.
3. An online supplement to this article that compares all of the proposed changes to current practice is available at www.segalco.com/publications/presentations/GASB.pdf.
4. *Net pension liability* is a new term that GASB first introduced last year in its *Preliminary Views*. It essentially means the unfunded actuarial accrued liability using the market value of assets and the blended discount rate.

takeaways >>

- Employers would have to provide additional disclosures such as a description of the plan, assumptions, policy for determining contributions and a sensitivity analysis of the impact on net pension liability of changes in the discount rate.
- The "blended" discount rate is not based on the plan's current funded status, but rather on a projection of plan benefits and assets.
- GASB's new, shorter amortization rules apply only to pension expense and not to funding.
- Immediate recognition of changes in liability due to plan amendments and accelerated recognition of changes in liability due to actuarial gains and losses and changes in actuarial assumptions could result in confusion between pension expense and pension funding.
- Pension expense would be delinked from pension funding, possibly having an unintended, detrimental effect on public attitudes about government pension plans.

SEGAL Bulletin

Benefits, Compensation and HR Consulting

Note: The Segal Company's comments to Moody's are available on the Segal website.

July 2012

Moody's Requests Comments on Proposal to Adjust Pension Liabilities and Costs Reported for State and Local Government Pension Plans

On July 2, Moody's Investor Services issued a Request for Comment on its proposal to implement four adjustments to the pension liability and cost information reported by state and local governments and their pension plans.[1] The proposed adjustments, which Moody's would calculate, are intended to improve the comparability of pension information across governments and facilitate the calculation of combined measures of bonded debt and unfunded pension liabilities in Moody's credit analysis. Comments are due by August 31, 2012. This *Bulletin* summarizes Moody's proposed adjustments and indicates where they echo the revised accounting standards in Statement No. 68, *Accounting and Financial Reporting for Pensions*, recently announced by the Governmental Accounting Standards Board (GASB).[2] It is important to note that Moody's proposed changes are *not* intended as a guide, standard or requirement for pension *funding*.

BACKGROUND

Moody's credit analysis has always taken into account potential credit pressure placed on governments by their pension liabilities based on reported liabilities and on an examination of the underlying assumptions on which the reporting is based. Moody's considers unfunded pension liabilities to be "debt-like obligations that can create a significant burden on government operating budgets." Moody's current methodologies for state and local government debt include an assessment of unfunded pension liabilities and cost.[3] How a government manages its pension obligations has an impact on Moody's perception of management strength. Moody's acknowledges that over the past two years, credit pressures related to pensions have been a "driving factor" in a number of high-profile rating downgrades.

Moody's proposed adjustments to pension liabilities and costs are part of the rating agency's ongoing efforts to improve for investors the transparency and comparability of pension liabilities and the ability to assess the scale of pension liabilities comparable to debt obligations. The proposed changes are a response to the fact that government accounting guidelines "allow for significant differences in key actuarial and financial assumptions, which can make statistical comparisons across plans very challenging."[4]

THE PROPOSED ADJUSTMENTS

Moody's four proposed adjustments to reported pension information are described below:

- **Actuarial accrued liability (AAL) would be discounted using a high-grade long-term corporate bond index rate.** For adjustments to 2010 and 2011 pension data, the discount rate would be 5.5 percent, which is based on Citibank's Pension Discount Curve. (This is much lower than the discount rates that most plans use: typically in the range of 7.5 percent to 8.25 percent.) To implement the discount rate adjustment, Moody's proposes using

[1] "Adjustments to US State and Local Government Reported Pension Data" is available from Moody's website (http://www.moodys.com/) to subscribers.

[2] On June 25, GASB announced that it had approved Statement No. 68 and Statement No. 67, *Financial Reporting for Pension Plans*. GASB intends to publish both standards in August.

[3] In 2011, Moody's started to use consolidated debt and pension metrics in its state government credit analysis. "Combining Debt and Pension Liabilities of U.S. States Enhances Comparability" is available from Moody's website (http://www.moodys.com/) to subscribers.

[4] This observation refers to GASB's Statement No. 27, Accounting for Pensions by State and Local Government Employers, which allow a variety of methods and assumptions to determine pension liabilities, and a range of amortization periods over which to pay for unfunded liabilities. Starting in fiscal 2015, GASB Statement No. 27 will be superseded by GASB Statement No. 68 (GASB 68). Moody's believes that even after GASB 68 takes effect, "differences in some key financial assumptions, such as determination of investment rates of return and discount rates will persist across the public plan landscape."

a 13-year duration estimate as a measure of the average life of benefit payments. Consequently, each plan's reported AAL would be projected forward for 13 years at the plan's reported discount rate, and then discounted back at 5.5 percent.[5]

- **Asset valuation smoothing would be eliminated in favor of reported fair value of assets as of the actuarial reporting date.** Moody's believes that asset smoothing can distort the size of unfunded liabilities and limit comparability, particularly when there have been wide swings in investment performance. Its proposed adjustment to asset values, which is described as being consistent with GASB 68, would be applied to fiscal 2010 pension data for states. Moody's is still evaluating whether adequate data is available to make this adjustment for local governments starting with fiscal 2011.

- **For states, annual pension contributions would be calculated using both on new discount rate and uniform UAAL amortization.** There are two components of annual contributions: (1) employer normal cost (ENC), which is the employer's share of liabilities accrued in a given year net of annual employee contributions, and (2) the amortization payment, which is equal to the amount necessary to eliminate the unfunded liability over a given amortization period, typically calculated as a level percent of payroll. Moody's proposes adjusting the ENC to reflect its common 5.5 percent discount rate (similar to the liability adjustment described above) and the amortization payment to reflect its adjusted unfunded liability, a common amortization period, and a level-dollar funding approach.

  In contrast to the 13-year duration estimate used to adjust the AAL, the ENC adjustment would use a 17-year active employee duration estimate for all plans. (Moody's estimate of the average remaining service life of employees based on a sample of public pension plans is 17 years). The proposed UAAL amortization payment adjustment is to use a simple 17-year level dollar amortization payment (also based on average remaining service life) of Moody's adjusted unfunded liability for each plan. This service-life adjustment is similar to a standard in GASB 68.[6]

  Moody's adjustment to contributions in not intended to be a funding strategy but rather a more accurate indicator of fiscal burden.

- **For multiple-employer cost-sharing pension plans, liabilities would be allocated proportionately according to each employer's share of the total contribution.** Moody's notes that this approach is similar to a standard in GASB 68.

POTENTIAL IMPLICATIONS

If Moody's ultimately adopts all of its proposed changes, it estimates that fiscal 2010 reported unfunded actuarial accrued liability (UAAL) for the 50 states and the local governments that it rates (covering 3,500 pension plans) would nearly triple: from $766 billion to $2.2 trillion. For states, Moody's adjustments to annual contribution amounts would increase annual contributions from $36.6 billion to $128.8 billion (or from 2.6 percent of revenue to 9.1 percent of revenue).

Despite these dramatic differences, Moody's does not believe that the changes it is proposing will on their own lead to rating changes for the states. However, Moody's acknowledges that the proposed changes could have an impact on ratings for local governments "where the adjusted liability is outsized for the rating category and without mitigating factors such as demonstrated flexibility to respond to higher fixed costs."

COMMENTS REQUESTED

Moody's is requesting comments on whether its proposed changes would "improve the comparability of pension information across governments and facilitate the calculation of combined measures of bonded debt and unfunded pension liabilities in our credit analysis." Comments should be sent via e-mail to cpc@moodys.com by August 31, 2012.

■ ■ ■

The Segal Company can be retained to work with employers, plan sponsors and their auditors in their efforts to determine the potential impact of Moody's proposed changes on their plans and practices.

SEGAL

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[5] Moody's estimates that this change would result in an increase in AAL of roughly 13 percent for each one percentage-point difference between 5.5 percent and the plan's discount rate. For example, a plan with a $10 billion reported AAL based on a discount rate of 8 percent would have an adjusted AAL of $13.56 billion (35.6 percent greater than reported).

[6] Moody's estimates that a reported ENC payment of $100 million based on an 8 percent discount rate would grow to $149 million based on a 5.5 percent discount rate. According to Moody's:

> For a hypothetical example of an issuer with a $2 billion UAAL and a $100 million employer normal cost payment, our normal cost and amortization adjustments would increase the annual contribution to $323 million from $192 million in the first year of the amortization schedule.

September 30, 2012

Moody's Investors Services
Attention: Marcia Van Wagner
7 World Trade Center
@ 250 Greenwich Street
New York, NY 10007

Sent via email at cpc@moodys.com

Dear Moody's:

This letter is submitted on behalf of the National Association of State Retirement Administrators (NASRA) and the National Council on Teacher Retirement (NCTR), as well as a number of our individual members, commenting on Moody's proposed adjustments to state and local government reported pension data.

The members of these groups are a broad mix of trustees, administrators, and public officials who collectively oversee, administer and manage a majority of the approximately $3 trillion in pension assets and benefits for some 21 million working and retired employees of state and local government.

We appreciate the opportunity Moody's has provided to comment on its proposed adjustments.

Moody's request for comments states "this proposal is part of our ongoing efforts to bring greater transparency and consistency to the analysis of pension liabilities."

We believe that Moody's proposed adjustments will actually reduce transparency and consistency in the analysis of pension liabilities.

One likely outcome of the new Governmental Accounting Standards Board (GASB) pension accounting standards will be the production by most public pension plans of two sets of actuarial calculations: one to meet GASB requirements and another to inform policymakers of the plan's funding requirements.

Actuarial measures are complex and often not well understood. The introduction of yet another set of calculations will result in increased, widespread confusion and misunderstanding of the meaning and implication of public pension actuarial measures. This, in turn, will be exacerbated by selective use: drawing on the funding level figure that best fulfills the objective of the user.

The introduction of yet another funding level figure, based on a third set of factors specified by Moody's, an organization with a high profile and degree of credibility, will compound the confusion, lack of transparency, and selective use. Confusion among policymakers about public pension funding conditions may lead to poor policy decisions affecting public pension benefits and funding provisions.

The Moody's request for comments states that Moody's is considering adjusting pension calculations "based on a high-grade long-term corporate bond index discount rate (5.5% for

2010 and 2011)", and "annual pension contributions will be adjusted to reflect … a common amortization period."

The public pension community is highly diverse: every plan is unique, with its own demographic composition, governance structure, investment policy, risk profile, asset allocation, and investment returns. The application of one-size-fits-all measures to public pension plans, particularly for their discount rate and amortization periods, belies the unique and diverse composition of these plans.

A range—in some cases, a wide range—exists in public pension fund risk profiles, target and actual asset allocations, and investment returns. Among plans in the Public Fund Survey, the current allocation to public equities spans from less than 15 percent to more than 70 percent; the allocation to fixed income ranges from 12 percent to nearly 60 percent; and the allocation to "alternatives" ranges from zero to 50 percent.

Actual public pension fund investment returns, as reported by Callan Associates, also vary widely. For example, for the 3-year period ended 12/31/2011, the difference in the annualized return between funds at the 10^{th} percentile and the 90^{th} percentile, was 3.68 percent. The difference was 2.33 percent for the 10-year period ended on the same date, and 1.6 percent for the 20-year period. Thus, even if Moody's proposed rate of 5.5 percent were to be realized, based on this experience, for the higher- and lower-performing funds over a 10-year period, the variance from the proposed rate would be more than 20 percent (half of 2.33 percent divided into 5.5 percent).

Investment performance and the discount rate have a considerable effect on a pension plan's current and projected cost and funding condition. Applying a single discount rate to measure these plans will result in distortion and confusion, not clarity and transparency, and any comparability among plans will not be meaningful.

As you know, GASB has just completed a comprehensive examination of public pension accounting that has taken more than six years to complete. As part of their review, GASB considered the issue of the discount rate, and after careful analysis and public comment, rejected the idea of a uniform rate in favor of a blended rate that more accurately reflects the unique composition of each pension system.

Applying a rate based on long-term corporate bonds not only ignores the fact that this metric has been deemed inappropriate for the public sector, but also the fact that such rates are currently at historic lows. This fact recently prompted Congress to implement stability measures for corporate plans based on 25-year averages, which for the 25 years ending September 30, 2011 of the first, second and third segments of the yield curve are 6.15%, 7.61%, and 8.35%, respectively.

Likewise, the application of a single, 17-year amortization period also fails to account for both the diversity of public pension plan demographic structures and the essentially perpetual nature of their plan sponsors.

Actuarial standards require the selection of actuarial assumptions to be consistent. Yet the replacement of plans' investment return assumption, without making a corresponding adjustment for inflation, could result in a distorted plan cost and funding level.

Finally, uniformity must not be confused with comparability. Providing a single, uniform discount rate and amortization period no more provides comparability among pension plans than would requiring the same market stress scenarios, or a common definition of credit risk, to be used by every credit rating agency in order to provide comparability among their ratings.

The Moody's request for comments states that under its proposed adjustments,"asset smoothing will be replaced with reported market or fair value as of the actuarial reporting date"

We believe the use of a point-in-time measure, in lieu of one that recognizes longer-term trends, will result in near-term volatility of pension plan funding conditions, potentially causing undue alarm or overconfidence. The primary cause of volatility in public pension funding conditions is investment returns, which is why nearly all public pension plans phase in, or smooth, their asset gains and losses, in most cases over a five-year period. For an entity with virtually a perpetual expected life, a smoothed asset value more fairly reflects the true condition of the plan than does a "spot price' as of the plan's fiscal year-end date.

We encourage Moody's to respect GAAP and the new GASB standards, and to give the new standards an opportunity to be used and evaluated. Short of that, the imposition of another set of methods to measure and report public pension funding conditions will not produce the greater transparency and authentic comparability that Moody's is seeking.

When the staff of the U.S. Securities and Exchange Commission (SEC) recently undertook an examination of the desirability of credit rating standardization, Moody's filed comments that urged the SEC to "consider whether there are existing or potential alternatives to standardization that could enhance users' ability to evaluate the performance of Credit Rating Agencies' ratings and their ability to use ratings as one of several tools in their decision-making processes."

In its response, Moody's noted that significantly increasing the amount of information made available about specific ratings, the meaning of rating systems, rating methodologies, and the aggregate performance of ratings, available to the public for free, "enables professional market participants to develop a thorough understanding of our approach to credit ratings, the rating rationale for specific rating actions, and how our ratings perform in the aggregate."

Moody's also noted that its "ratings cannot be reduced to an output from a formulaic methodology or model;" that "a single quantitative interpretation of credit factors "would miss a myriad of considerations that arise naturally in the rating process;" and that "a single-dimensioned definition likely would underemphasize ratings stability, which many investors value. Greater ratings volatility also could adversely affect the stability of the financial system."

We believe that these concerns about the application of uniform and standardized credit rating factors also apply to the analysis of public pensions. We also believe that the new GASB standards will permit the public to develop an adequate and consistent understanding of the public pension community's approach to the discount rate appropriate to each plan.

Thank you again for this opportunity to comment.

Sincerely,

David G. Bronner	Chief Executive Officer	Retirement Systems of Alabama
Diane E. Scott, CPA, CGMA	Chief Financial Officer	Retirement Systems of Alabama
Larry Dickerson	Executive Secretary	Arkansas State Highway Employees Retirement System
James M. Hacking	Administrator	Public Safety Personnel Retirement System of Arizona
Anne Stausboll	Chief Executive Officer	California Public Employees Retirement System
Jack Ehnes	Chief Executive Officer	California State Teachers' Retirement System
Gregory W. Smith	Interim Executive Director and Chief Operating Officer/General Counsel	Colorado Public Employees' Retirement Association

Dan M. Slack	Chief Executive Officer	Fire & Police Pension Association of Colorado
Darlene Perez	Chief Administrative Officer	Connecticut Teachers' Retirement Board
Clare Barnett	Chair	Connecticut Teachers' Retirement Board
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Jeffrey L. Ezell	Executive Director	Teachers Retirement System of Georgia
Donna Mueller	Executive Director	Iowa Public Employees' Retirement System
Don Drum	Executive Director	Public Employees' Retirement System of Idaho
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Cindy Rougeou	Executive Director	Louisiana State Employees Retirement System
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Phil Stoddard	Director	Michigan Public School Employees Retirement System
Don Rambow	President, Board of Trustees	Public Employees Retirement Association of Minnesota
Dave Bergstrom	Executive Director	Minnesota State Retirement System
Laurie Fiori Hacking	Executive Director	Minnesota Teachers' Retirement Association
Gary Findlay	Executive Director	Missouri State Employees' Retirement System
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Scott Simon	Executive Director	Missouri Public Employees Retirement System
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Sparb Collins	Executive Director	North Dakota Public Employees' Retirement System
Fay Kopp	Chief Retirement Officer Interim Director	North Dakota Teachers' Fund for Retirement North Dakota Retirement & Investment Office
Michael W. Smith	Executive Director	Omaha School Employees' Retirement System
Mr. Gerald Chavez	Chairman	New Mexico Public Employees' Retirement Association Board of Trustees
Dana Bilyeu	Executive Director	Nevada Public Employees' Retirement System
Thomas K. Lee	Executive Director & CIO	New York State Teachers' Retirement System
Karen Carraher	Executive Director	Ohio Public Employees' Retirement System
Lisa J. Morris	Executive Director	School Employees Retirement System of Ohio

Michael J. Nehf	Executive Director	State Teachers Retirement System of Ohio
Tom Spencer	Executive Director	Oklahoma Public Employees Retirement System
Paul R. Cleary	Executive Director	Oregon Public Employees Retirement System
Jeff Clay	Executive Director	Pennsylvania Public School Employees Retirement System
Héctor Mayol Kauffmann	Administrator	Puerto Rico Employees Retirement System, Puerto Rico Teachers Retirement System and Puerto Rico Judiciary Retirement System
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Jill Bachus	Director	Tennessee Consolidated Retirement System
David Gavia	Executive Director	Texas Municipal Retirement System
Gene Glass	Director	Texas County & District Retirement System
Brian Guthrie	Executive Director	Teacher Retirement System of Texas
Robert Newman	Executive Director	Utah Retirement Systems
Robert Schultze	Executive Director	Virginia Retirement System
Jeanne M. Carr, CFA	Executive Director and Chief Investment Officer	Educational Employees' Supplementary Retirement System of Fairfax County
Robert J. Conlin	Secretary	Wisconsin Department of Employee Trust Funds
Thom Williams	Executive Director	Wyoming Retirement Systems

GASB
Governmental Accounting Standards Board

GASB's New Pension Standards: Setting the Record Straight

The Governmental Accounting Standards Board's (GASB) recent pension standards substantially improve the accounting and financial reporting of public employee pensions by state and local governments. The new standards are:

Statement No. 67, *Financial Reporting for Pension Plans,* which applies to financial reporting by most pension plans.
Statement No. 68, *Accounting and Financial Reporting for Pensions,* which applies to financial reporting by most governments that provide their employees with pension benefits.

Below are questions and answers that should help clarify common misperceptions about the new pension Statements.

1. **Do the new GASB Statements establish requirements for how governments should fund their pensions?**

   No. In the past, the accounting and financial reporting standards were closely associated with the approach that many governments take to funding their benefits—that is, toward contributing sufficient resources to a defined benefit pension plan to finance benefit payments when they come due. Consequently, many governments have established funding policies based on the GASB's standards. However, after reexamining the prior standards for pensions, the GASB concluded that approaches to funding are not necessarily the best approach to accounting for and reporting pension benefits. Therefore, the new Statements mark a definitive separation of accounting and financial reporting from funding.

2. **Will governments have to pay more each year for pensions because of the GASB's new Statements?**

   As just stated, the new pension Statements relate only to accounting and financial reporting, or how pension costs and obligations are measured and reported in external financial reports. How much governments actually contribute each year to a pension plan is a policy issue. Governments will likely report pension expense more quickly than under the prior standards; however, how or whether this information is used in assessing the amounts that governments will contribute to their pension plans is a public policy decision made by government officials.

3. **Do governments have to use a municipal bond rate for discounting as punishment for not fully funding their pensions?**

   No. The selection of an appropriate interest rate for discounting projected future benefit payments to their present value is based on what resources are projected to be used to make those payments: (1) assets of the plan that have been invested using an investment strategy to achieve the assumed long-term expected rate of return and their earnings; or (2) the general resources of the government employer. As long as the projected plan net position related to current employees and inactive employees exceeds the projected benefit payments for those employees, the long-term expected rate of return on investments will serve as the basis for discounting. This asset-based rate is appropriate because the earnings on the plan's investments reduce the amount an employer will need to contribute to the plan.

   If a government reaches a *crossover point*—when projected benefit payments for current employees and inactive employees exceed projected plan net position related to those employees—then benefit payments projected to be made from that point forward will be discounted using a high-quality municipal bond interest rate. This liability-based rate is appropriate because the plan would no longer be expected to have sufficient assets related to those employees to produce investment income that will reduce how much an employer will have to contribute. The pension liability would then resemble the employer's outstanding debt and other typical long-term liabilities.

   However, it is true—all other factors being equal— that the less well-funded a pension plan is, the more likely it will reach a crossover point and therefore have to discount some projected benefit payments using the municipal bond index rate. Under current economic conditions, municipal bond rates are lower than long-term expected returns on pension plan investments. Using a lower discount rate increases the present value of projected benefit payments and, thereby, increases the size of the pension liability.

4. **Do the GASB's standards allow governments to make their liabilities look smaller by using a discount rate based on unrealistically high expected rates of investment return?**

No. The new Statements require that governments measure their pension liabilities using assumptions that are consistent with the standards of practice of the actuarial profession. If a government assumes a rate of return that is out of line with the actuarial standards, then it is misapplying the accounting standards rather than exploiting a loophole in the standards.

It is important to note that examining a pension plan's investment return in any short-term period is not appropriate for drawing conclusions about the appropriateness of a government's assumption about *long-term* investment earnings. The investment return in any given year or short-term period is likely to be either higher or lower than the assumed long-term return. However, an appropriate long-term investment return assumption will reflect the expected average earnings over a long period, even though it may not be the same as actual earnings in any particular single or short-term period.

Governments will disclose information about their long-term investment return assumptions in the notes to the financial statements to assist in evaluating the reasonableness of those assumptions. The information will include a brief description of how the long-term expected rate of return was determined, significant methods and assumptions used for that purpose, the assumed asset allocation of the pension plan's portfolio, and the long-term expected real rate of return for each major asset class.

5. **Is the discount rate the most important factor in determining the size of a government's pension liability?**

The guidance put forth in the new Statements pertaining to the selection of a discount rate is certainly an important element but it is only one part of the determination. Discounting is one of the basic three steps involved in measuring a government's total pension liability—projecting, discounting, and attributing. (The measurement process is more fully described in separate fact sheets about accounting and financial reporting by governments that provide pension benefits.)

The amount of a government's pension liability also depends on a variety of other factors such as:

The types of benefits a government has promised

The length of service of employees and their salaries in the final years of their employment

The life expectancy of retirees, which determines how long they will continue to receive benefits

The inflation rate, which affects both salaries and rates of return on investments.

6. **Can the information reported by governments under the new Statements be compared?**

Yes. The comparability of the pension information that will result from the new Statements has been significantly improved. One of the features of the prior standards that many financial statement users have criticized is the variety of choices that employers could make when attributing the present value of projected benefit payments to past, present, and future periods. Governments previously were allowed to select from six different actuarial cost allocation methods, each of which could be applied in two ways—as a level dollar amount each year or as a level percentage of payroll in each year. In the view of many users, these options seriously diminished comparability. The new Statements, however, require that all governments use one type of actuarial cost method—called *entry age*—and apply it only as a level percentage of payroll.

It should be noted that, although governments are required to measure their pensions within the same parameters set forth in the standards, the resulting amounts will be different because of differences in the terms of the governments' respective pension plans, differences in the demographics of the plan members, and differences in other relevant factors. In other words, because the governments are in different circumstances, their measurements will employ different assumptions.

It has been suggested that comparability would be greatly improved if all governments were required to use the same assumptions. However, taking a one-size-fits-all approach would ignore significant differences between governments—such as the mix of their investment portfolios and their actual earnings experience—that are relevant to determining the amount that governments are obligated to provide for pensions.

7. **Has the GASB determined that state and local government pension plans are underfunded by $3 trillion?**

   No. The GASB has never conducted research regarding the extent to which pension plans are funded in the aggregate. Funding relates to a public policy issue that is beyond the scope of the GASB's activities.

MEMORANDUM

TO: **TFFR Board**

FROM: **Fay Kopp**

DATE: **October 18, 2012**

SUBJ: **Board Resolution**

As you know, Dr. Sanstead is retiring at the end of the year. He has served on the TFFR Board since 1985. I have drafted the enclosed resolution for the Board's consideration in recognition of Dr. Sanstead's 28 years of distinguished service on the TFFR Board.

Since the October meeting will be Dr. Sanstead's last TFFR Board meeting, we will host a Retirement Coffee Party in his honor during the meeting break.

Enclosure

TFFR Board Resolution in Appreciation of
Dr. Wayne G. Sanstead

WHEREAS, Dr. Wayne G. Sanstead, State Superintendent of Schools, served as trustee of the ND Teachers' Fund for Retirement Board with honor for 28 years, from 1985 to his retirement in 2012; and

WHEREAS, Dr. Sanstead has an extensive background of legislative, executive, and educational leadership having dedicated his professional career to the ND education community as the nation's longest serving chief state school officer. He proudly served as State Superintendent for 28 years, state representative for eight years, state senator for two years, and lieutenant governor of North Dakota for eight years; and

WHEREAS, Dr. Sanstead was a vocal and energetic supporter of defined benefit plans, a zealous defender of retirement security for all educators, and an active National Council on Teacher Retirement participant; and

WHEREAS, Dr. Sanstead was dedicated to the mission of the TFFR fund which is to advocate, develop, and administer a comprehensive retirement program for all trust fund members within the resources available; and

WHEREAS, Dr. Sanstead was a tireless champion for active and retired educators and supported efforts to improve member benefits, strengthen TFFR's funding structure, prudently invest trust fund assets, and safeguard the financial integrity of the fund; and

WHEREAS, Dr. Sanstead distinguished himself as an outstanding trustee whose invaluable knowledge, experience, leadership, and genuine compassion served trust fund members with respect; now therefore, be it

RESOLVED, that the TFFR Board express its sincere appreciation to Dr. Sanstead for his dedicated service to the Board, and for his contributions, dedication, and unwavering support of the teachers, students, and citizens of North Dakota; and be it further

RESOLVED, that the Board extends its best wishes to Dr. Sanstead, and his wife, Mary Jane, for a long and happy retirement; and be it further

RESOLVED, that a copy of this Resolution be presented to Dr. Wayne Sanstead, printed in the official TFFR Board minutes, and submitted to the National Council on Teacher Retirement, on behalf of the many lives he has so positively touched.

DATED this 25th day of October, 2012

____________________	____________________
Mike Gessner, President	Kelly Schmidt, State Treasurer
____________________	____________________
Kim Franz, Trustee	Bob Toso, Trustee
____________________	Lowell J. Latimer
Clarence Corneil, Trustee	Lowell Latimer, Vice President

October 9, 2012

MEETING NOTICE

Senator Dick Dever, Chairman, has called a meeting of the **EMPLOYEE BENEFITS PROGRAMS COMMITTEE**.

Date: Tuesday, October 30, 2012

Time: 9:00 a.m.

Place: Harvest Room, State Capitol, Bismarck

Agenda: Receive July 1, 2012, actuarial reports for the Public Employees Retirement System, the Highway Patrolmen's retirement system, and the Teachers' Fund for Retirement; and review technical and actuarial comments regarding proposals for legislation relating to retirement programs, health programs, and retiree health programs submitted to the committee

Special Note: Anyone who plans to attend the meeting and needs assistance because of a disability should contact the Legislative Council staff as soon as possible.

Committee Members: Senators Dick Dever, Ray Holmberg, Ralph L. Kilzer, Karen K. Krebsbach, Carolyn C. Nelson, Ronald Sorvaag; Representatives Randy Boehning, Roger Brabandt, Bette Grande, Ron Guggisberg, Scott Louser, Ralph Metcalf, John D. Wall

Staff Contact: Jeffrey N. Nelson, Counsel

Any member unable to attend this meeting is asked to notify this office as soon as possible.

Sincerely,

Jim W. Smith
Director

JWS/AL

NORTH DAKOTA LEGISLATIVE MANAGEMENT

Tentative Agenda

EMPLOYEE BENEFITS PROGRAMS COMMITTEE

Tuesday, October 30, 2012
Harvest Room, State Capitol
Bismarck, North Dakota

9:00 a.m. Call to order
Roll call
Consideration of the minutes of the September 25, 2012, meeting

TEACHERS' FUND FOR RETIREMENT (TFFR)

9:05 a.m. Presentation by Ms. Kim Nicholl, FSA, MAAA, FCA, EA, Senior Vice President and National Public Sector Retirement Practice Leader, the Segal Company, Chicago, Illinois, of the July 1, 2012, actuarial valuation of TFFR

Presentation by Ms. Nicholl and Ms. Fay Kopp, Interim Executive Director, Retirement and Investment Office, providing technical comments and actuarial information relating to the bills submitted to the committee that affect TFFR

Bill No. 99 Plan modifications to TFFR required to maintain compliance with federal statutes or rules, definition of normal retirement age and revising the definitions of actuarial equivalent and salary, incorporation of federal law changes, and modification of vesting of rights provisions under TFFR (TFFR)

Bill No. 43 Expiration of the increase in TFFR member and employer contributions (Representative Louser)

PUBLIC EMPLOYEES RETIREMENT SYSTEM (PERS)

Presentation by Mr. Brad Ramirez, FSA, MAAA, FCA, EA, Consulting Actuary, the Segal Company, Greenwood Village, Colorado, of the July 1, 2012, actuarial valuations of the PERS main system, judges' retirement fund, National Guard retirement fund, Highway Patrolmen's retirement fund, and the retiree health benefits fund

Presentation by Mr. Ramirez and Mr. Sparb Collins, Executive Director, Public Employees Retirement System, providing technical comments and actuarial information relating to the bills submitted to the committee that affect PERS

Bill No. 100 Plan modifications to the PERS defined contribution retirement plan required to maintain compliance with the Internal Revenue Code, incorporation of Internal Revenue Code compliance under the Highway Patrolmen's retirement plan and PERS, updating appropriate committee designations for the savings clauses of the Highway Patrolmen's retirement plan and PERS, the PERS Board's authority to fund administrative expenses, normal retirement dates for a peace officer or correctional officer, normal retirement dates for a National Guard security officer or firefighter, normal retirement dates for a peace officer employed by the Bureau of Criminal Investigation, removal of the level Social Security retirement benefit option under PERS, defrayal of expenses associated with the pretax benefits program, and distribution of a deceased participant's accumulated account balance under the defined contribution retirement plan (PERS)

Bill No. 103 Increased employer and employee contributions under the Highway Patrolmen's retirement plan and PERS (PERS)

Bill No. 101 Definition of an eligible employee, payment of the cost of uniform group insurance premiums for temporary employees, and the health savings account option offered to political subdivisions as part of the high-deductible health plan alternative under the uniform group insurance program (PERS)

Bill No. 102 Benefit coverage and health benefits credit for retired employees not eligible for Medicare and retired employees eligible for Medicare under the uniform group insurance program (PERS)

UNIFORM GROUP INSURANCE PROGRAM

Presentation by Mr. Collins concerning uniform group insurance premiums, the dental insurance plan, and the flex comp program

Staff directives

Adjourn

NOTE: The committee may take a 15- to 20-minute break in the morning and a 15- to 20-minute break in the afternoon.

Committee Members

Senators Dick Dever (Chairman), Ray Holmberg, Ralph L. Kilzer, Karen K. Krebsbach, Carolyn C. Nelson, Ronald Sorvaag

Representatives Randy Boehning, Roger Brabandt, Bette Grande, Ron Guggisberg, Scott Louser, Ralph Metcalf, John D. Wall

Staff Contact: Jeffrey N. Nelson, Counsel

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October 15, 2012

Via E-mail

Senator Dick Dever, Chairman
Employee Benefits Program Committee
c/o Jeffrey N. Nelson
North Dakota Legislative Council
State Capitol
600 East Boulevard
Bismarck, ND 58505-0360

Re: **Technical Comments on Draft Bill 99 (Administrative Changes)**

Dear Senator Dever:

As requested, we reviewed draft Bill 99 (Bill No. 13.0099.03000), which proposes a number of technical and administrative changes to the North Dakota Teachers' Fund for Retirement (TFFR). The following presents our analysis of such proposed changes found in draft Bill 99.

Summary: The proposed legislation would make the following notable changes:

- Clarifies that the definition of "actuarial equivalent" is based on actuarial assumptions and methods adopted by the retirement board (Section 1).

- Adds a definition of "normal retirement age" to the plan by reference to statutory sections describing eligibility rules for unreduced retirement benefits (Section 1), and clarifies that members have a vested right to retirement benefits upon attaining normal retirement age (Section 4).

- Updates federal compliance provisions of the plan regarding Internal Revenue Code sections 401(a)(17), 401(a)(9) and 415(b) and (d) in various sections of the North Dakota Century Code (NDCC), chapter 15-39.1 (Sections 1, 2 and 3).

- Clarifies that tier one members become vested after earning three years of service and tier two members become vested after earning five years of service, without regard to whether assessments were paid to the TFFR (Section 4).

- Adds a savings clause to the plan provisions whereby the retirement board, with approval of the employee benefits programs committee, may adopt appropriate terminology as necessary for the plan to comply with applicable federal statutes and rules (Section 5).

Actuarial Cost Analysis: This bill would have an immaterial actuarial cost impact on the TFFR.

Technical Comments: Our comments on the bill are as follows:

General Comments

The bill generally clarifies existing statutory provisions to more accurately reflect actual operations of the TFFR or to make various provisions of the plan more consistent with each other. The provisions of this bill do not appear to directly or significantly impact the benefits payable from the TFFR.

Compliance Issues

The bill amends various sections of the North Dakota Century Code, chapter 15-39.1 to change references under Internal Revenue Code section 401(a)(9), section 401(a)(17) (as well as Code references related to the definition of compensation under section 401(a)(17)), and section 415(b) and (d) from the Code language in effect on August 1, 2011 to the language in effect on August 1, 2013. No material changes have been made to these Internal Revenue Code sections since August 1, 2011, other than the statutory indexing of dollar amounts set forth in Code sections 401(a)(17) and 415(b).

Pursuant to our recommendation to TFFR, the most recent version of the bill amends specific language in NDCC §15-39.1-10.6, relating to cost-of-living increases made by Internal Revenue Code section 415(d) to the maximum dollar limit under Code section 415(b) and clarifies that such increases in the dollar limit shall apply to former employees.

This bill clarifies that members vest in their retirement benefits under the plan upon attaining normal retirement age. It is our understanding that the IRS requested that TFFR amend their plan rules to provide for vesting at normal retirement age in order to obtain a favorable determination letter on the plan's qualified status.

Section 4 of the bill clarifies that tier one and tier two members will become vested without regard to whether assessments were paid to TFFR for purposes of complying with plan qualification requirements under Internal Revenue Code section 401(a).

Administrative Issues

The savings clause language in Section 5 of the bill enables the retirement board to respond to changes in applicable federal statutes and rules quickly and efficiently in a manner that helps the plan maintain compliance with applicable federal requirements for tax-qualified pension plans.

The information contained in this letter is provided within our role as the plan's actuary and benefits consultant and is not intended to provide tax or legal advice. We recommend that you address all issues described herein with your legal counsel.

Please contact us if you have any questions or comments.

Sincerely yours,

Kim Nicholl, FSA, EA, FCA
Senior Vice President and Consulting Actuary

Melanie Walker, JD
Vice President

kn/mw/ns

cc: Ms. Fay Kopp, Interim Executive Director, ND Retirement and Investment Office
Mr. Matthew Strom

5281260V3/13475.003

Sixty-third
Legislative Assembly
of North Dakota

BILL NO.

Introduced by

(At the request of the Teachers' Fund for Retirement)

A BILL for an Act to create and enact a new section to chapter 15-39.1 of the North Dakota Century Code, relating to plan modifications to the teachers' fund for retirement required to maintain compliance with federal statutes or rules; and to amend and reenact section 15-39.1-04, subsection 4 of section 15-39.1-10, and sections 15-39.1-10.6 and 15-39.1-11 of the North Dakota Century Code, relating to the definition of normal retirement age and revising the definitions of actuarial equivalent and salary, incorporation of federal law changes, and modification of vesting of rights provisions under the teachers' fund for retirement.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. AMENDMENT. Section 15-39.1-04 of the North Dakota Century Code is amended and reenacted as follows:

15-39.1-04. Definitions.

For purposes of this chapter, unless the context or subject matter otherwise requires:

1. "Actuarial equivalent" means the ~~annual~~ amount ~~determined by calculations based on mortality tables, purchasable with a given amount at a stated age~~calculated to be of equal actuarial value to the benefit otherwise payable when computed on the basis of actuarial assumptions and methods adopted by the board.
2. "Beneficiary" means a person, estate, trust, or organization designated in writing by a participating member to receive benefits provided by this plan, in receipt of benefits, or otherwise provided under section 15-39.1-17.
3. "Board" means the board of trustees of the teachers' fund for retirement.
4. "Contract" means a written agreement with a school board or other governing body of a school district or special education unit of this state or a letter of appointment by a state institution, state agency, or other employer participating in the fund.
5. "Fund" means the teachers' fund for retirement.

6. "Interest" as applied to member assessments is an annual rate of six percent compounded monthly and as applied to the repurchase of credit for withdrawn years is six percent compounded annually.

7. "Normal retirement age" means the age at which a member becomes eligible for monthly lifetime normal unreduced retirement benefits as provided in subsection 1 of section 15-39.1-10.

8. "Retirement" means cessation of covered employment and acceptance of a benefit under former chapter 15-39, or chapter 15-39.1 or 15-39.2.

~~8.~~9. "Retirement annuity" means the payments made by the fund to a member after retirement, these payments beginning on the first or fifteenth day of the month following eligibility for a benefit.

~~9.~~10. "Salary" means a member's earnings in eligible employment under this chapter for teaching, supervisory, administrative, and extracurricular services during a ~~school~~plan year reported as salary on the member's federal income tax withholding statements plus any salary reduction or salary deferral amounts under 26 U.S.C. 125, 132(f), 401(k), 403(b), 414(h), or 457 in effect on August 1, ~~2011~~2013. "Salary" includes amounts paid to members for performance of duties, unless amounts are conditioned on or made in anticipation of an individual member's retirement or termination. The annual salary of each member taken into account in determining benefit accruals and contributions may not exceed the annual compensation limits established under 26 U.S.C. 401(a)(17)(B) in effect on August 1, ~~2011~~2013, as adjusted for increases in the cost of living in accordance with 26 U.S.C. 401(a)(17)(B) in effect on August 1, ~~2011~~2013. A salary maximum is not applicable to members whose participation began before July 1, 1996. "Salary" does not include:

a. Fringe benefits or side, nonwage, benefits that accompany or are in addition to a member's employment, including insurance programs, annuities, transportation allowances, housing allowances, meals, lodging, or expense allowances, or other benefits provided by a member's employer.

b. Insurance programs, including medical, dental, vision, disability, life, long-term care, workforce safety and insurance, or other insurance premiums or benefits.

c. Payments for unused sick leave, personal leave, vacation leave, or other unused leave.

d. Early retirement incentive pay, severance pay, or other payments conditioned on or made in anticipation of retirement or termination.

e. Teacher's aide pay, referee pay, busdriver pay, or janitorial pay.

f. Amounts received by a member in lieu of previously employer-provided benefits or payments that are made on an individual selection basis.

g. Signing bonuses as defined under section 15.1-09-33.1.

h. Other benefits or payments not defined in this section which the board determines to be ineligible teachers' fund for retirement salary.

~~10.~~11. "State institution" includes North Dakota vision services - school for the blind, the school for the deaf, and the North Dakota youth correctional center.

~~11.~~12. "Teacher" means:

a. All persons licensed by the education standards and practices board who are contractually employed in teaching, supervisory, administrative, or extracurricular services by a state institution, multidistrict special education unit, area career and technology center, regional education association, school board, or other governing body of a school district of this state, including superintendents, assistant superintendents, business managers, principals, assistant principals, and special teachers. For purposes of this subdivision, "teacher" includes persons contractually employed by one of the above employers to provide teaching, supervisory, administrative, or extracurricular services to a separate state institution, state agency, multidistrict special education unit, area career and technology center, regional education association, school board, or other governing body of a school district of this state under a third-party contract.

b. The superintendent of public instruction, assistant superintendents of public instruction, county superintendents, assistant superintendents, supervisors of instruction, the professional staff of the department of career and technical education, the professional staff of the center for distance education, the executive director and professional staff of the North Dakota education association who are members of the fund on July 1, 1995, the professional staff of an interim school district, and the professional staff of the North Dakota high school activities association who are members of the fund on July 1, 1995.

c. The executive director and professional staff of the North Dakota council of school administrators who are members of the fund on July 1, 1995, and licensed staff of teachers centers, but only if the person was previously a member of and has credits in the fund.

d. Employees of institutions under the control and administration of the state board of higher education who are members of the fund on July 16, 1989.

~~12.~~13. "Tier one grandfathered member" for purposes of sections 15-39.1-10 and 15-39.1-12 means a tier one member who, as of June 30, 2013, is vested as a tier one member in accordance with section 15-39.1-11; and

a. Is at least fifty-five years of age; or

b. Has a combined total of years of service credit in the plan and years of age which equals or exceeds sixty-five.

~~13.~~14. "Tier one member" means a teacher who has credit in the system on July 1, 2008, and has not taken a refund pursuant to section 15-39.1-20 after June 30, 2008.

~~14.~~15. "Tier one nongrandfathered member" for purposes of sections 15-39.1-10 and 15-39.1-12 means a tier one member who does not qualify as a tier one grandfathered member.

~~15.~~16. "Tier two member" means a teacher who is not a tier one member.

SECTION 2. AMENDMENT. Subsection 4 of section 15-39.1-10 of the North Dakota Century Code is amended and reenacted as follows:

4. Retirement benefits must begin no later than April first of the calendar year following the year the member attains age seventy and one-half or April first of the calendar year following the year the member terminates covered employment, whichever is later. Payments must be made over a period of time which does not exceed the life expectancy of the member or the joint life expectancy of the member and the beneficiary. Payment of minimum distributions must be made in accordance with section 401(a)(9) of the Internal Revenue Code in effect on August 1, ~~2011~~2013, and the regulations issued under that section, as applicable to governmental plans.

SECTION 3. AMENDMENT. Section 15-39.1-10.6 of the North Dakota Century Code is amended and reenacted as follows:

15-39.1-10.6. Benefit limitations.

Benefits with respect to a member participating under former chapter 15-39 or chapter 15-39.1 or 15-39.2 may not exceed the maximum benefits specified under section 415 of the Internal Revenue Code [26 U.S.C. 415] in effect on August 1, ~~2011~~<u>2013</u>, for governmental plans. The maximum dollar benefit applicable under section 415(b)(1)(A) of the Internal Revenue Code must reflect any increases in this amount provided under section 415(d) of the Internal Revenue Code subsequent to August 1, ~~2011~~<u>2013</u>. If a member's benefit is limited by these provisions at the time of retirement or <u>termination of employment, or</u> in any subsequent year, the benefit paid in any following calendar year may be increased to reflect all cumulative increases in the maximum dollar limit provided under section 415(d) of the Internal Revenue Code for years after the year <u>employment terminated or</u> payments commenced, but not to more than would have been payable in the absence of the limits under section 415 of the Internal Revenue Code. If an annuitant's benefit is increased by a plan amendment, after the commencement of payments, the member's benefit may not exceed the maximum dollar benefit under section 415(b)(1)(A) of the Internal Revenue Code, adjusted for the commencement age and form of payment, increased as provided by section 415(d) of the Internal Revenue Code. If this plan must be aggregated with another plan to determine the effect of section 415 of the Internal Revenue Code on a member's benefit, and if the benefit must be reduced to comply with section 415 of the Internal Revenue Code, then the reduction must be made pro rata between the two plans, in proportion to the member's service in each plan.

SECTION 4. AMENDMENT. Section 15-39.1-11 of the North Dakota Century Code is amended and reenacted as follows:

15-39.1-11. Vesting of rights.

When a tier one member has ~~paid assessments and~~ earned three years of service credit in this state, that member has a vested right to a retirement annuity but is not entitled to payments under this chapter until the member meets the requirements set forth in section 15-39.1-10 or 15-39.1-12. When a tier two member has ~~paid assessments and~~ earned five years of service credit in this state, that member has a vested right to a retirement annuity but is not entitled to payments under this chapter until the member meets the requirements set forth in section

15-39.1-10 or 15-39.1-12. When a tier one or tier two member has attained normal retirement age that member has a vested right to a retirement annuity under this chapter.

SECTION 5. A new section to chapter 15-39.1 of the North Dakota Century Code is created and enacted as follows:

Savings clause - Plan modifications.

If the board determines that any section of this chapter does not comply with applicable federal statutes or rules, the board shall adopt appropriate terminology with respect to that section as will comply with those federal statutes or rules, subject to the approval of the employee benefits programs committee. Any plan modifications made by the board pursuant to this section are effective until the effective date of any measure enacted by the legislative assembly providing the necessary amendments to this chapter to ensure compliance with the federal statutes or rules.

HO

SEGAL

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October 19, 2012

Via E-mail

Senator Dick Dever, Chairman
Employee Benefits Programs Committee
c/o Jeff Nelson
ND Legislative Council
State Capitol
600 East Boulevard
Bismarck, ND 58505-0360

Re: Technical Comments on Draft Bill 43

Dear Senator Dever:

The following presents our analysis of the proposed changes found in Draft Bill 43 (Bill Draft 13.0043.02000) that would modify the expiration of the increase in required contributions for both employers and members of the Teachers' Fund for Retirement (TFFR).

Summary

The contribution rates, percentage per annum of the teacher's salary, required for employers and TFFR members are shown below:

Period	Employer	Member	Total
July 1, 2008 through June 30, 2012	8.75%	7.75%	16.50%
July 1, 2012 through June 30, 2014	10.75%	9.75%	20.50%
Beginning July 1, 2014	12.75%	11.75%	24.50%

As under present law, the higher contributions are not intended to be permanent. Both employer and member rates would revert to 7.75% on the July 1st following the first valuation showing that the funded ratio, as measured by the ratio of the actuarial value of assets to the actuarial accrued liability, equals or exceeds 90%. The proposed legislation would increase this trigger funded ratio for contribution reversion from 90% to 100%.

Actuarial Analysis

Based on the actuarial analysis, this bill would not have an actuarial impact on the TFFR's liability immediately. It would increase the funded status of the plan starting in 2041 by deferring the contribution reversion to 7.75% from 2040 until 2046. Exhibits I, II and III show 30-year projections of funded status, employer contribution rate, and member contribution rate.

Administrative Costs

This bill would have minimal impact on administrative costs of the TFFR.

General Comments

The projections were made using generally accepted actuarial practices and are based on demographic data as of July 1, 2012, asset returns through July 1, 2012, and use assumptions and methods in place for the July 1, 2012 valuation.

Projections, by their nature, are not a guarantee of future results. The modeling projections are intended to serve as estimates of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies describes herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.

Please do not hesitate to contact us with any questions or comments.

Sincerely,

Kim Nicholl

Kim Nicholl, FSA, MAAA, EA
Senior Vice President and Actuary

Matthew A. Strom

Matthew A. Strom, FSA, MAAA, EA
Consulting Actuary

kn/ms/ns

cc: Ms. Fay Kopp, Interim Executive Director, ND Retirement and Investment Office

Attachments

5281132v2/13475.002

Exhibit I

Projection of Funded Status

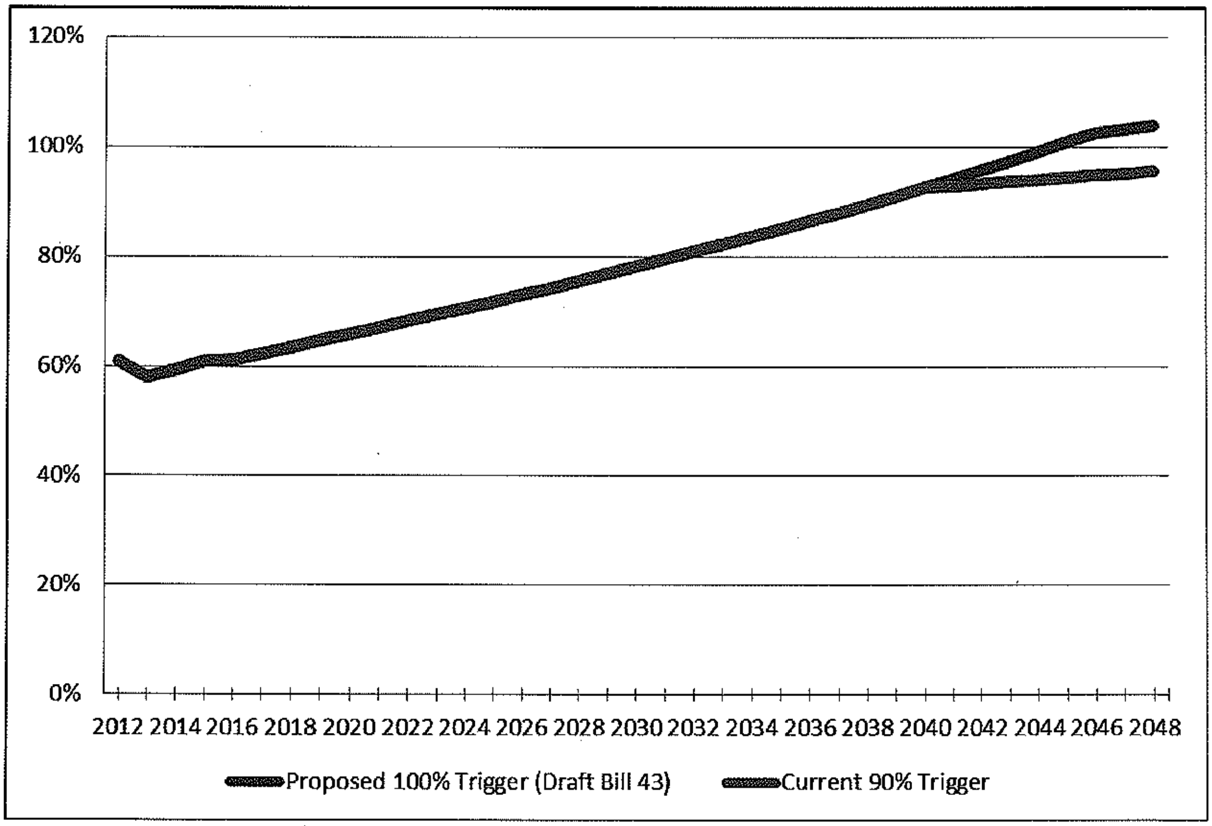


Exhibit II

Projection of Employer Contribution Rate

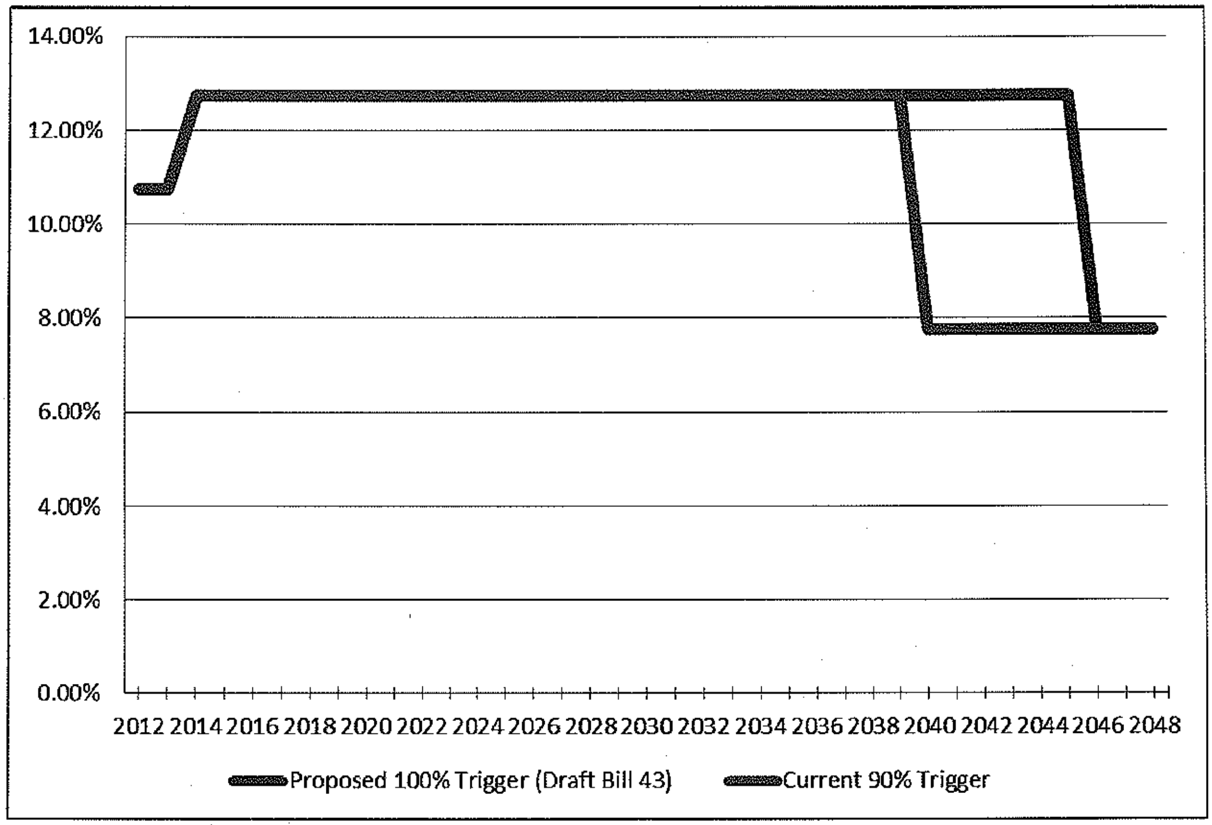
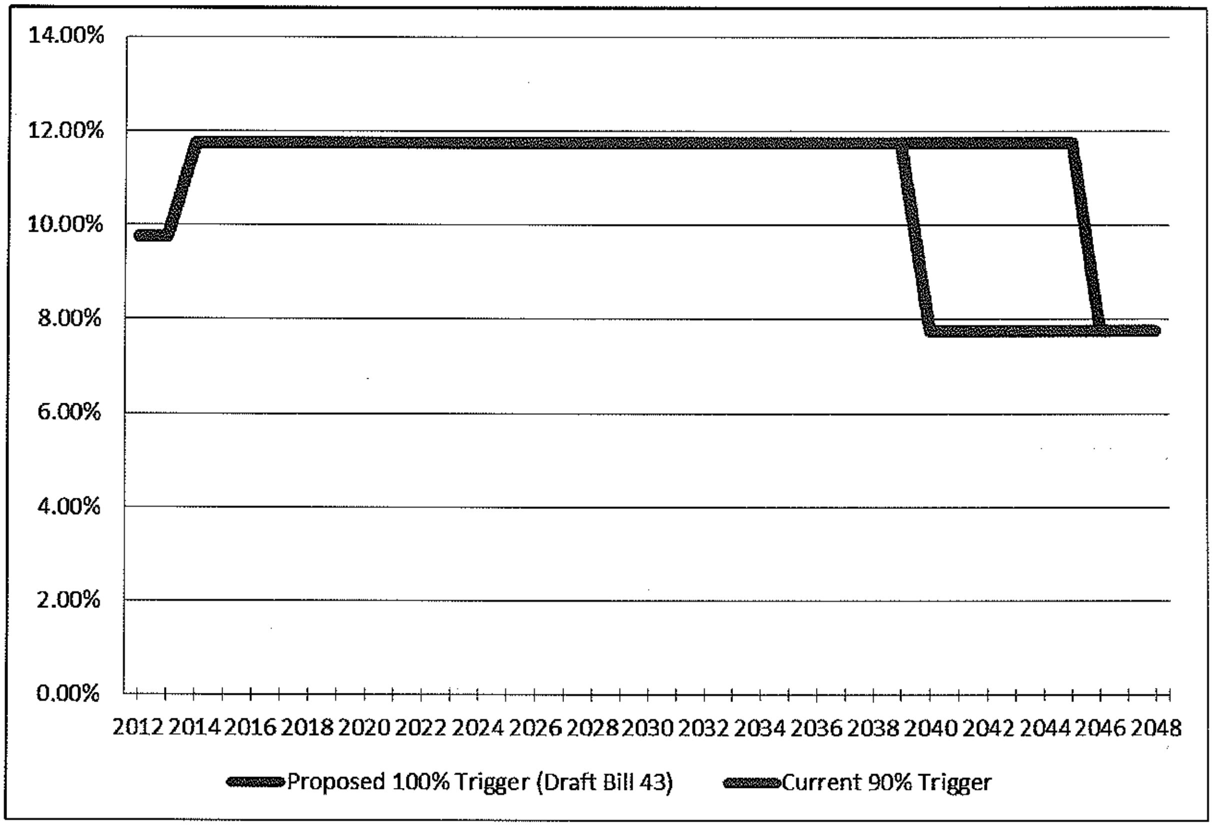


Exhibit III

Projection of Employee Contribution Rate



Sixty-third
Legislative Assembly
of North Dakota

BILL NO.

Introduced by

Representative Louser

A BILL for an Act to amend and reenact subsection 1 of section 15-39.1-09 of the North Dakota Century Code, relating to expiration of the increase in teachers' fund for retirement member and employer contributions.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. AMENDMENT. Subsection 1 of section 15-39.1-09 of the North Dakota Century Code is amended and reenacted as follows:

1. Except as otherwise provided by law, every teacher is a member of the fund and must be assessed upon the teacher's salary seven and seventy-five hundredths percent per annum, which must be deducted, certified, and paid monthly to the fund by the disbursing official of the governmental body by which the teacher is employed. Member contributions increase to nine and seventy-five hundredths percent per annum beginning July 1, 2012, and increase thereafter to eleven and seventy-five hundredths percent per annum beginning July 1, 2014. Except as otherwise provided by law, every governmental body employing a teacher shall pay to the fund eight and seventy-five hundredths percent per annum of the salary of each teacher employed by it. Contributions to be paid by a governmental body employing a teacher increase to ten and seventy-five hundredths percent per annum beginning July 1, 2012, and increase thereafter to twelve and seventy-five hundredths percent per annum beginning July 1, 2014. The required amount of member and employer contributions must be reduced to seven and seventy-five hundredths percent per annum effective on the July first that follows the first valuation showing a ratio of the actuarial value of assets to the actuarial accrued liability of the teachers' fund for retirement that is equal to or greater than ~~ninety~~one hundred percent. The disbursing official of the

governmental body shall certify the governmental body payments and remit the payments monthly to the fund.

TFFR Ends
Annual Review
Year Ended June 30, 2012

The information provided below indicates that the TFFR ends policies formally adopted by the TFFR Board and accepted by the SIB are being implemented.

Ends Policy: **Membership Data and Contributions**

Ends: Ensure the security and accuracy of the members' permanent records and the collection of member and employer contributions from every governmental body employing a teacher.

- **Member and Employer Information**

  We have used the CPAS pension administration software and FileNet document management software for seven years and both continue to meet our needs. During the past year additional CPAS configuration was done to handle the legislated changes that increased employer and employee contributions and required employee contributions on all salary earned by re-employed retirees. RIO staff also successfully completed offsite testing of the agency's disaster recovery plan.

- **Collections and Payments**

  Collected member and employer contributions totaling $86.4 million from 222 employers and $2.4 million from members for the purchase of service credit.

  Paid out $135.2 million in pension benefits and $2.5 million in refunds and rollovers totaling $137.7 million for the year.

  About 74% of employers electronically report contributions to TFFR. This comprises over 90% of the active membership.

  As of June 30, 2012, 137 employers are reporting using TFFR Employer Online Services.

  Assessed 23 reporting penalties and withheld foundation payments from 3 school districts a total of 7 times. TFFR waived 3 of the 23 penalties. Employer reporting penalties include late reporting of contributions and failure to provide documentation in a timely manner (e.g. new member forms, return to teach forms, employer compliance audit documentation.)

- **Employer Outreach Programs**

  Met with school board members, business managers, and software vendors at the 2011 School Board and School Business Manager Association Annual Conference. Presentation to school board attendees was also provided.

  Made four presentations to school district business managers at regional workshops on 2011 legislative changes and TFFR reporting requirements.

Ends Policy: **Member Services**

Ends: Provide direct services and public information to members of TFFR.

- **Outreach Program Statistics**

1,151 people attended outreach programs (plus convention participants)
Retirement Services staff traveled 5,704 miles

- **Preretirement Seminars**

117 members attended
3 locations – Bismarck, Grand Forks, & Dickinson

Pre-retirement Seminars are generally held at two sites each year in July and rotate between Bismarck, Minot, Fargo, and Grand Forks. Additional seminars will be added if requested by an employer and minimum attendance can be met.

- **Benefits Counseling Sessions**

Statewide - 241 members
16 locations – Grand Forks, Williston, Valley City, Dickinson, Fargo, Minot, Devils Lake, Bismarck, Jamestown, Wahpeton, Hazen, Oakes, Rugby, Kenmare, Grafton, and Bowman

Local Office – 349 members

- **Group Presentations**

444 people attended

NDRTA Convention
Retirement 101 (Bismarck)
Spring Business Managers Workshop (Minot, Devils Lake, Valley City, Dickinson)
NDCEL Conferences
SBA Convention – School Board Members
NDEA Convention – Active Members

- **Conferences and Conventions**

ND Retired Teachers Convention – Bismarck
ND School Board Convention - Bismarck
ND Career and Technical Education Convention – Bismarck
NDCEL Annual Conference – Bismarck
NDEA Instructional Conference – Bismarck
NDEA Representative Assembly – Bismarck

- **Member/Employer Communications**

  Report Card non-retired newsletter (2 publications)
  Retirement Today retiree newsletter (2 publications)
  Briefly employer newsletter (4 publications) *Now sent electronically.
  Updated Employer Guide
  Updated Administrative Rules
  Updated forms and publications with recent legislation

- **Member Statements**

  Mailed 11,816 annual benefits statements to non-retired members in August
  Mailed 6,915 annual statements to retired members in December

- **Other**

  NDRIO web site was visited by 8,940 people a total of 19,373 times. The average length of each visit was three minutes.

Ends Policy: **Account Claims**

Ends: Ensure the payment of claims to members of TFFR.

- **Annuity Payments**

  Distributed annuities to 6,991 retired members and beneficiaries as of June 30, 2012. For the year, pension benefits totaled $135.2 million. Of the total, about 99% of the payments were deposited via electronic funds transfer.

- **Monthly Payroll Deductions** (July 1, 2012 payroll – total 7,107)

Federal tax withholding	5,240	74%
ND state tax withholding	4,266	60%
PERS health insurance	733	10%
PERS dental insurance	399	6%
PERS vision insurance	152	2%
PERS life insurance	39	1%

- **Refunds, Rollovers & Transfers**

  Distributed refund and rollover payments of $2.5 million to 213 participants during the fiscal year. Approximately 33% of the refunding members rolled over their refund payment to an IRA or another eligible plan.

- **Processed Claims for Benefits**

Refunds	142
Rollovers	71
Retirements	371
Disabilities	7
Survivor annuitants	6
Continuing annuitants	32

- **Member Account Activity**

New members	752
Deaths	203
Pop ups	28
Purchase requests	171

Ends Policy: **Trust Fund Evaluation/Monitoring**

Ends: Ensure actuarial consulting and accounting services are provided to the retirement program. The TFFR Board of Trustees will select the independent actuary for consulting and actuarial purposes and direct a contract to be executed.

- **Actuarial Services**

  The annual actuarial valuation for July 1, 2012 will be presented to the TFFR Board by Segal on October 25, 2012.

- **External Audit**

  An unqualified opinion was issued by independent auditors, Clifton Larson Allen, LLP, regarding RIO's financial statements for the year ending June 30, 2012. Clifton Larson Allen, LLP will present the report to the SIB Audit Committee in November 2012.

- **Internal Audit**

  The Internal Audit report will be presented to the TFFR Board on October 25, 2012.

- **Other**

  Received Certificate of Achievement in Financial Reporting from GFOA for June 30, 2011, Annual Financial Report.

  Received 2011 recognition award for pension plan administration from the Public Pension Coordinating Council. Application for 2012 is in process.

TFFR Retirement Statistics

>Participation in Outreach Programs

>Service Purchase Statistics

>Active Membership Tier Statistics

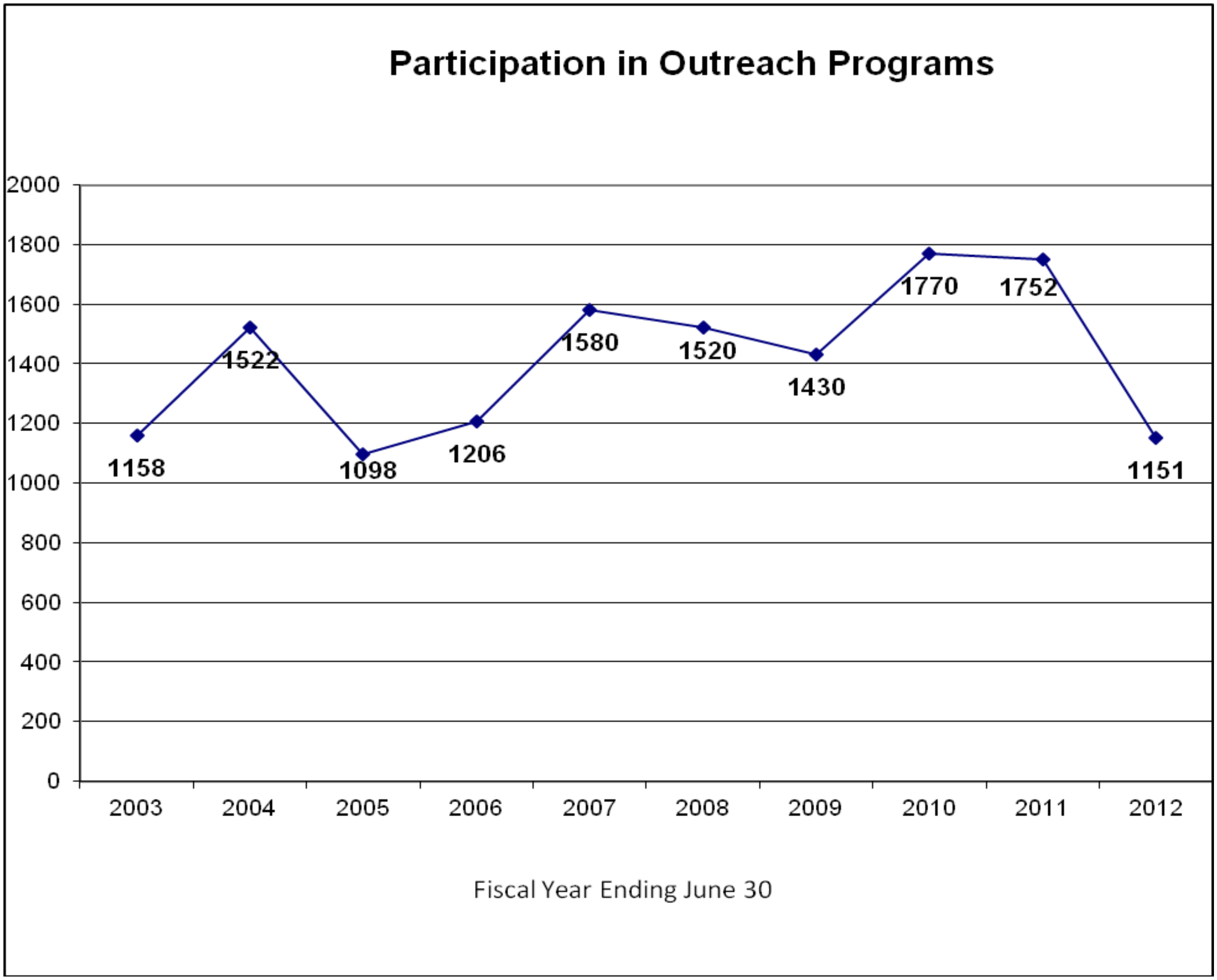
>Service Retiree History & Option Usage

>Retiree Statistics

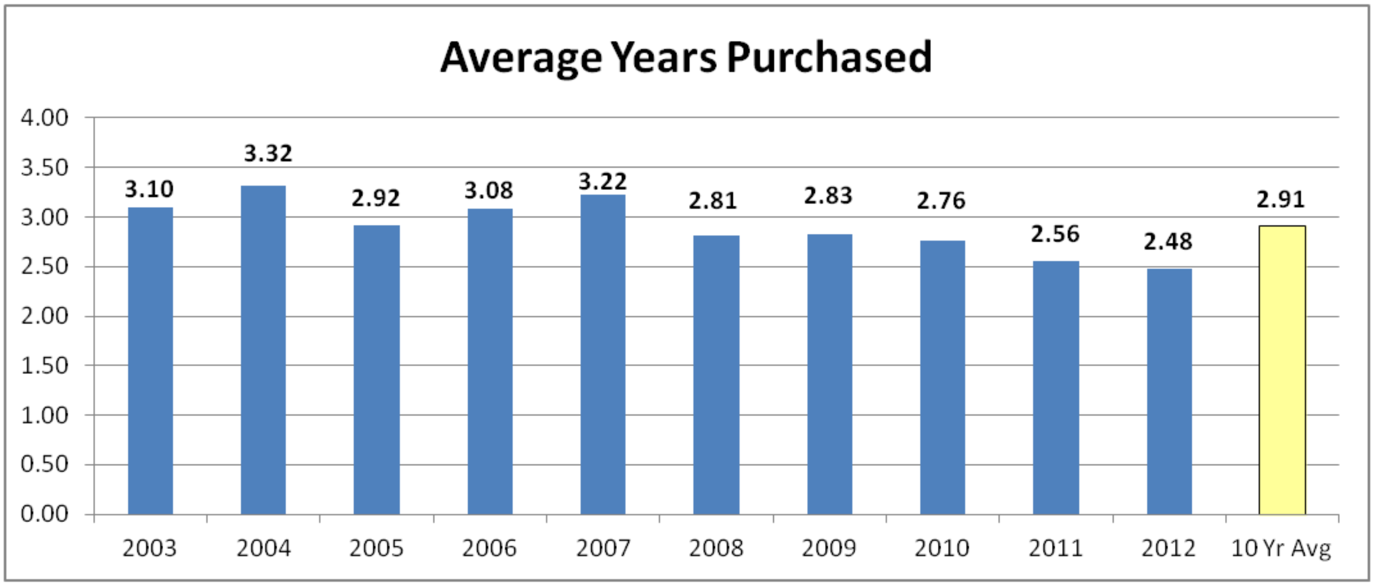
>Disability Retirements

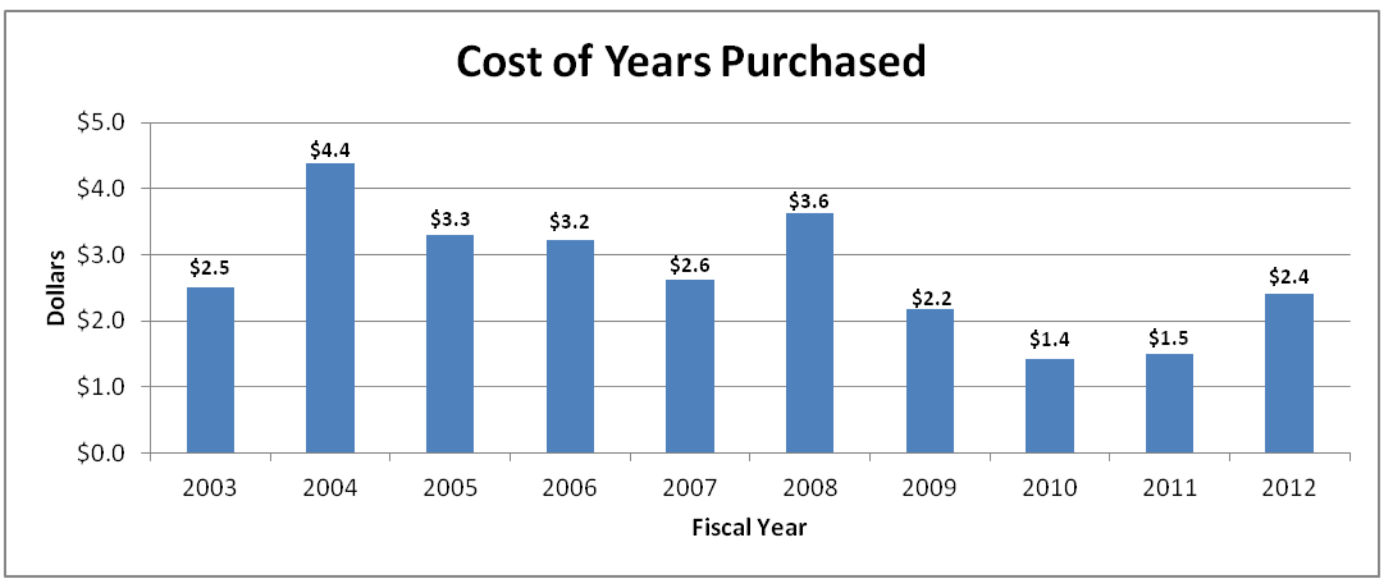
>Re-Employed Retirees

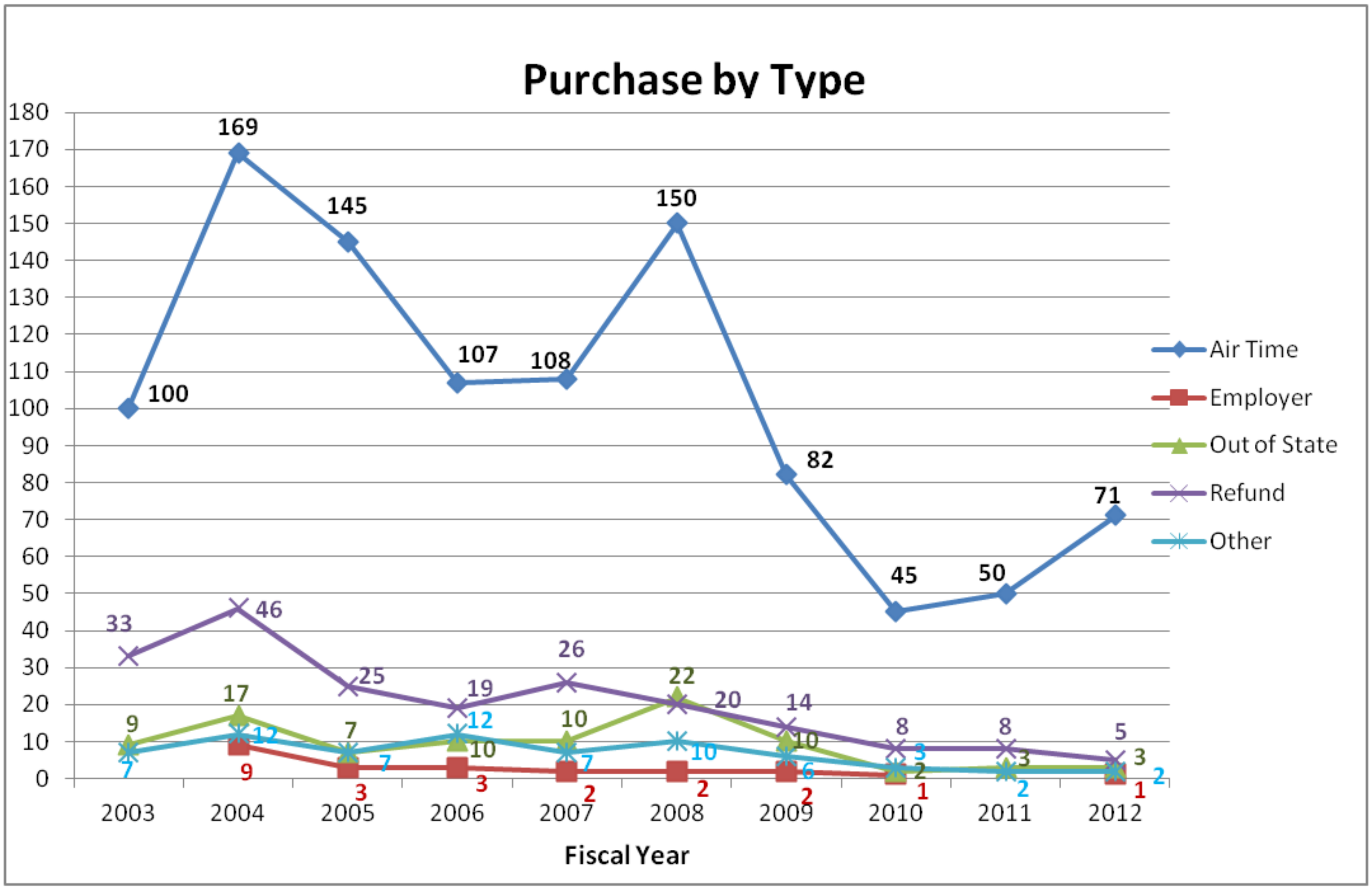
>Employer History & Current Employer Payment Model Statistics


Participation in Outreach Programs
2000
1800
1600
1400
1200
1000
800
600
400
200
0
1158
1522
1098
1206
1580
1520
1430
1770
1752
1151
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Fiscal Year Ending June 30

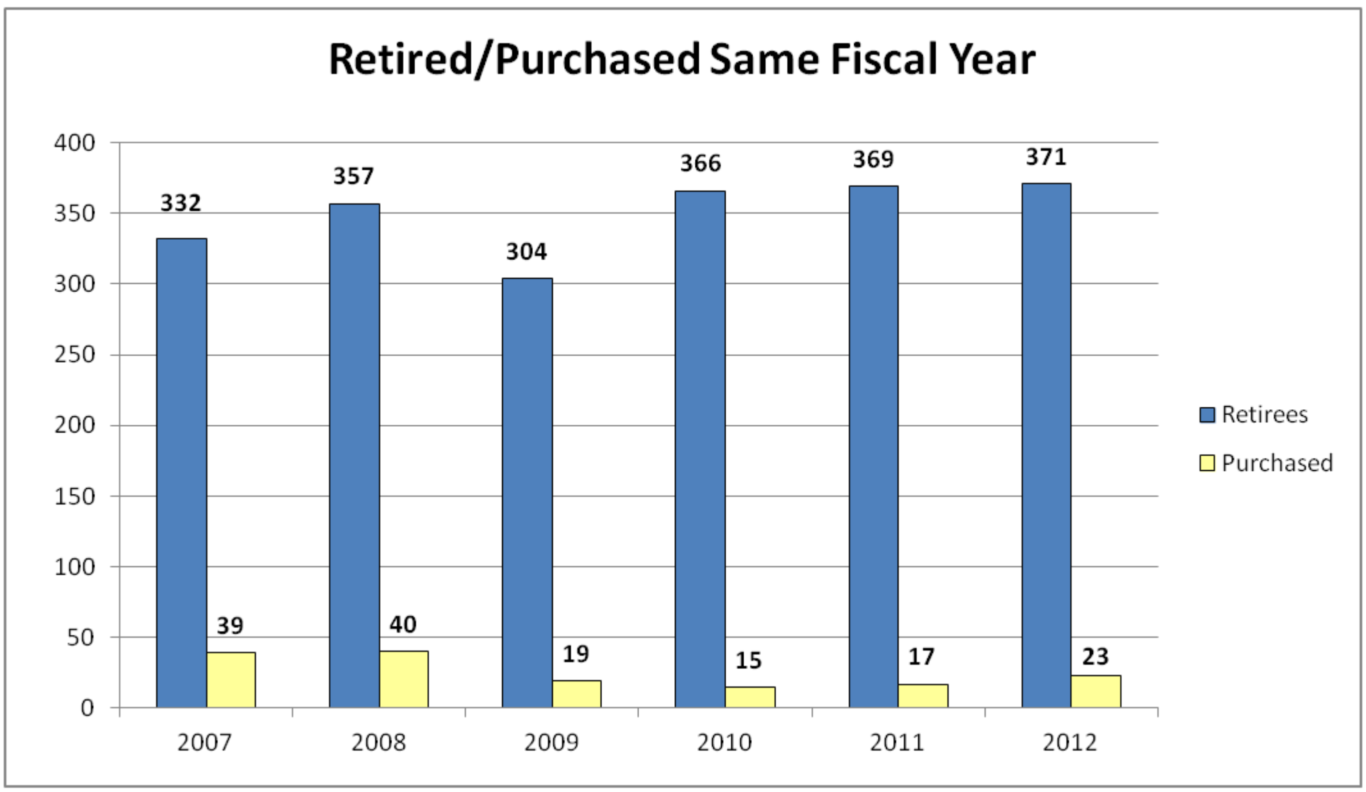
Service Purchase Statistics



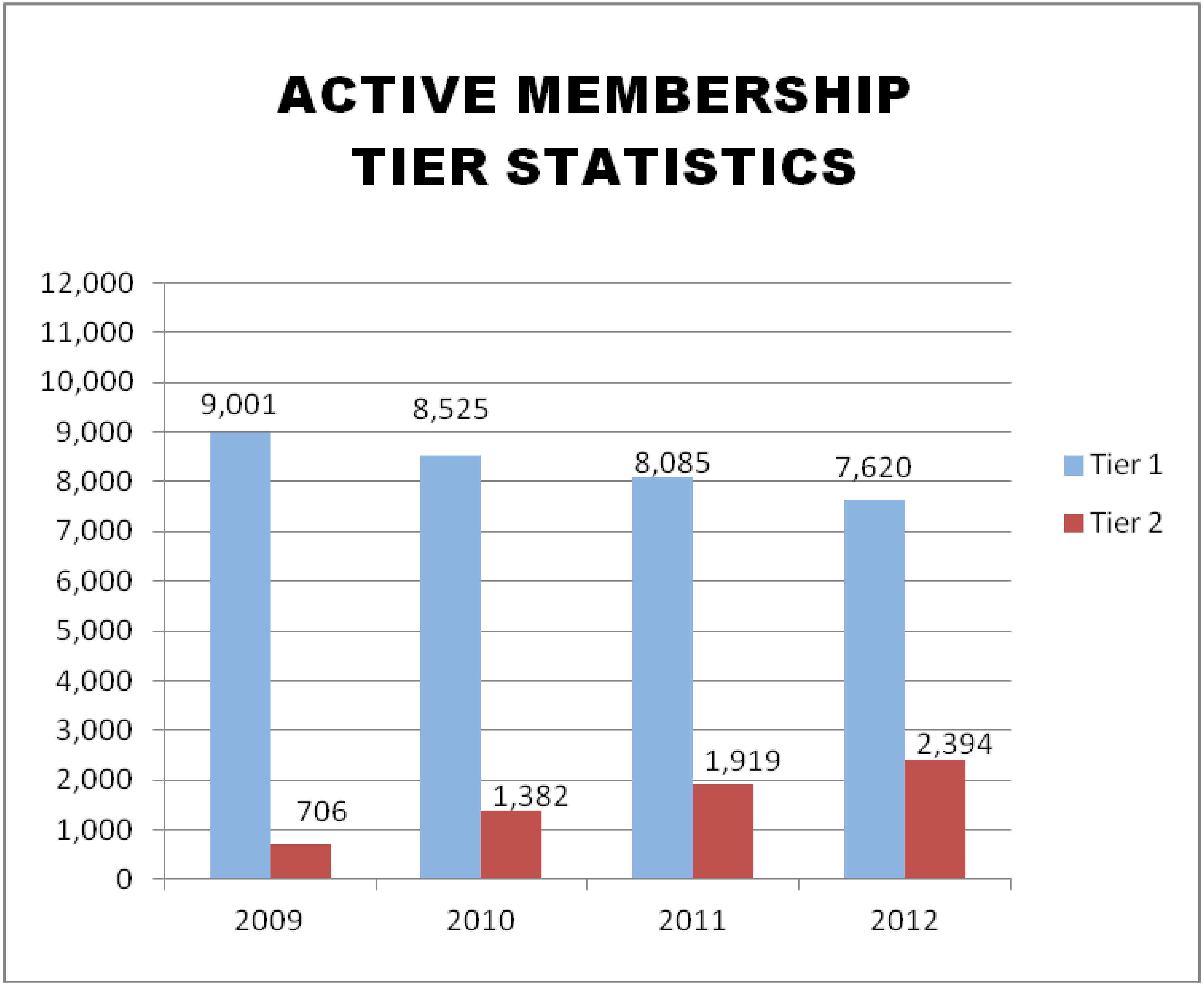


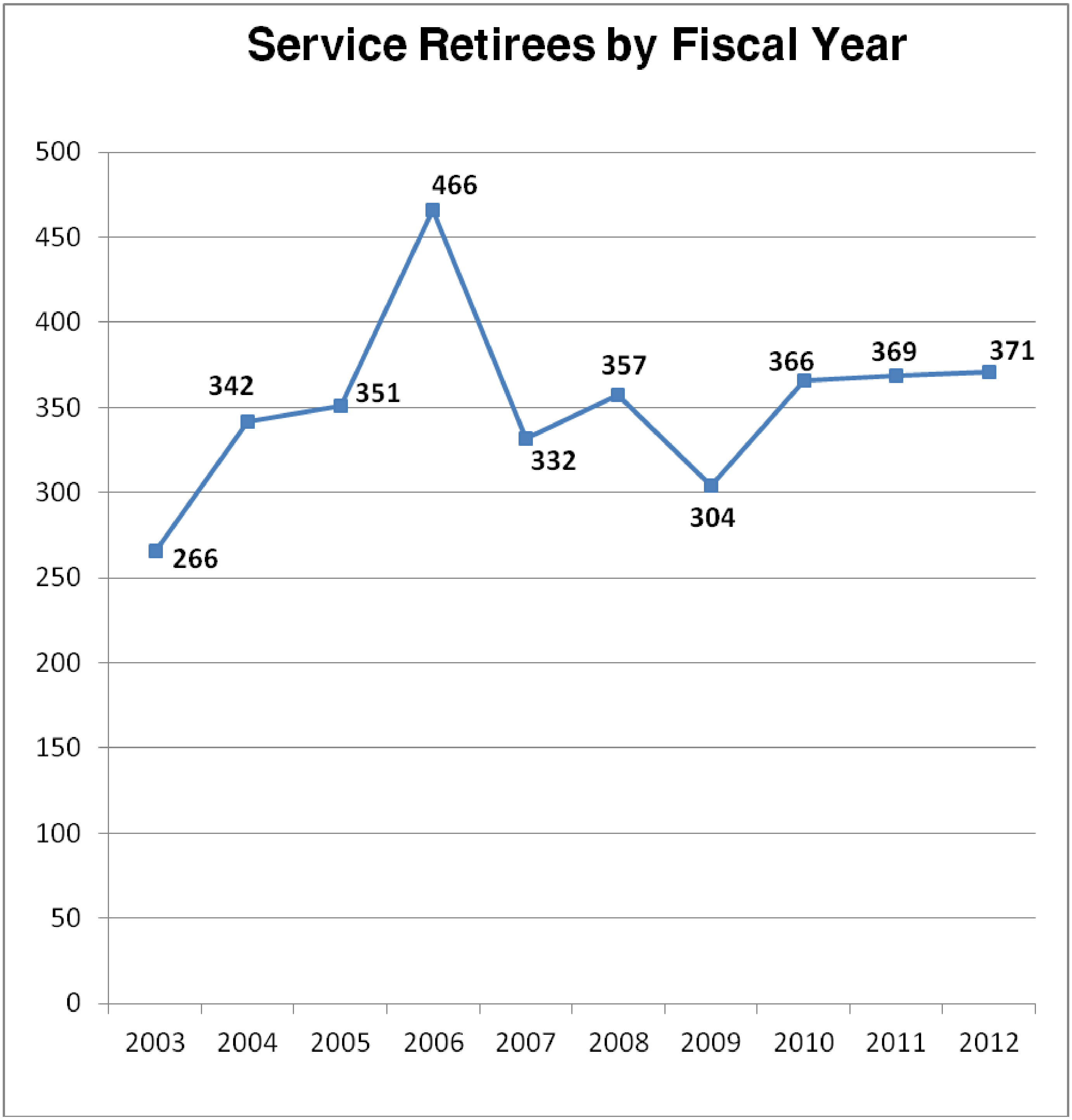


Purchase by Type
Air Time
Employer
Out of State
Refund
Other
Fiscal Year
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
100
169
145
107
108
150
82
45
50
71
33
46
25
19
26
20
14
8
8
5



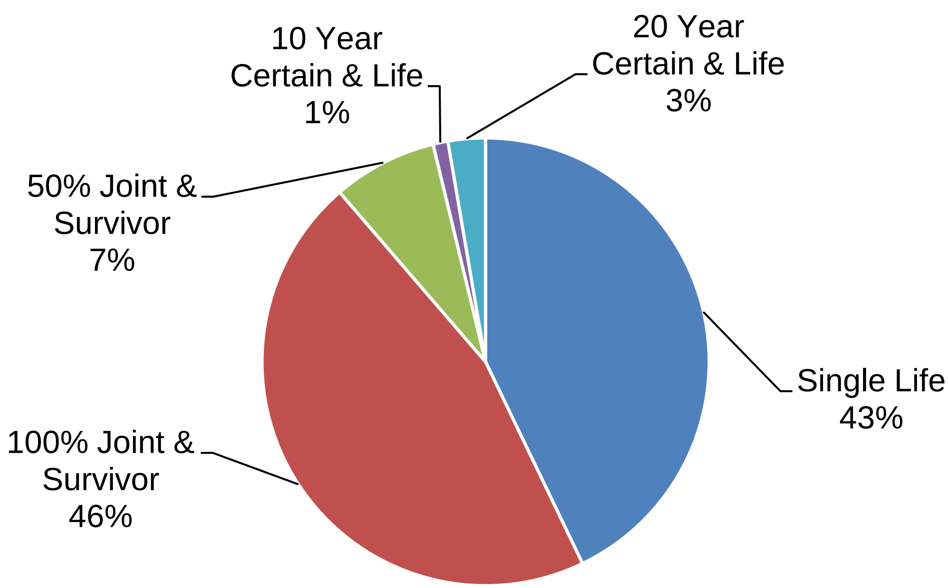
Retired/Purchased Same Fiscal Year
Retirees
Purchased
2007
2008
2009
2010
2011
2012
332
357
304
366
369
371
39
40
19
15
17
23


ACTIVE MEMBERSHIP
TIER STATISTICS
12,000
11,000
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
9,001
706
8,525
1,382
8,085
1,919
7,620
2,394
2009
2010
2011
2012
Tier 1
Tier 2


Service Retirees by Fiscal Year
500
450
400
350
300
250
200
150
100
50
0
266
342
351
466
332
357
304
366
369
371
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012

Service Retirement Options

Retirement Option	**Number**
Single Life	159
100% Joint & Survivor	170
50% Joint & Survivor	28
10 Year Certain & Life	4
20 Year Certain & Life	10
Total	**371**



Note: Of total, 2 members (1%) selected level income option.

Of total, 20 members (5%) selected partial lump sum option.

TFFR RETIREE STATISTICS
OCTOBER 2012

Data Selection

■ 7,151 retired members and beneficiaries as of July 2012 based on data from the valuation file.

■ Selected various categories of retiree data and grouped data 3 ways.

TFFR RETIREE STATISTICS BY FISCAL YEAR

Fiscal Year of Retirement Ending June 30	Avg Monthly Pension	Avg Annual Salary	Avg Service Credit	Ave Retirement Age of Member	Avg Current Age of Recipient	Number of Retirees
pre-1979	$ 506	$ 8,260	23.7	58.2	90.1	219
1980	$ 625	$ 13,693	28.7	60.6	90.5	40
1981	$ 650	$ 14,295	26.9	60.1	91.0	40
1982	$ 670	$ 19,281	25.7	61.1	90.1	39
1983	$ 522	$ 13,448	22.2	59.4	87.4	29
1984	$ 897	$ 21,813	31.1	62.7	89.9	104
1985	$ 903	$ 24,048	29.6	60.5	86.0	28
1986	$ 1,009	$ 24,991	31.7	62.1	87.5	117
1987	$ 857	$ 23,663	26.4	60.5	85.6	33
1988	$ 1,052	$ 26,109	29.3	61.2	84.7	149
1989	$ 896	$ 25,444	24.9	58.8	81.4	32
1990	$ 1,114	$ 27,279	29.4	59.8	81.6	273
1991	$ 972	$ 27,279	26.1	60.5	80.9	94
1992	$ 1,237	$ 30,433	30.2	59.4	79.2	184
1993	$ 1,164	$ 33,037	25.7	59.2	77.5	79
1994	$ 1,287	$ 31,884	28.5	59.8	78.2	279
1995	$ 1,250	$ 32,186	27.3	59.1	75.7	208
1996	$ 1,257	$ 32,625	27.2	58.7	74.8	169
1997	$ 845	$ 27,495	20.1	58.1	73.5	78
1998	$ 1,501	$ 34,249	29.0	59.0	73.3	335
1999	$ 1,079	$ 33,139	20.9	58.6	71.6	93
2000	$ 1,655	$ 37,461	28.7	59.0	71.4	425
2001	$ 1,377	$ 37,891	23.2	57.3	68.8	82
2002	$ 1,744	$ 39,237	28.3	58.3	68.8	487
2003	$ 1,734	$ 40,500	27.2	58.3	67.4	285
2004	$ 1,824	$ 41,445	27.6	58.3	66.5	353
2005	$ 1,979	$ 43,253	27.7	58.5	65.7	356
2006	$ 1,982	$ 44,669	27.5	58.8	65.0	370
2007	$ 2,098	$ 47,421	27.5	59.0	63.8	362
2008	$ 2,006	$ 46,123	26.4	59.4	63.6	362
2009	$ 2,149	$ 48,927	27.0	59.2	62.4	345
2010	$ 2,147	$ 50,118	26.2	60.5	62.7	334
2011	$ 2,247	$ 51,654	26.4	60.6	61.8	392
2012	$ 2,366	$ 54,919	27.4	60.7	61.0	331
2013*	$ 4,090	$ 89,952	30.2	61.3	61.4	45
All FY	**$ 1,664**	**$ 38,825**	**27.4**	**59.4**	**70.8**	**7,151**

*Note: 2013 is a partial year (45 retirees) and includes July 1, 2012 retirees. Therefore, averages are higher since count includes primarily administrators, with some summer school, deferred, disability, and survivors.

TFFR RETIREE STATISTICS BY FORMULA

Fiscal Year of Retirement Ending June 30	Avg Monthly Pension	Avg Annual Salary	Avg Service Credit	Avg Retirement Age of Member	Avg Current Age of Recipient	Number of Retirees
Old formulas	$ 506	$ 8,260	23.7	58.2	90.1	219
1.00%	$ 623	$ 15,281	26.1	60.4	89.9	148
1.05%	$ 898	$ 22,288	30.8	62.2	89.1	132
1.15%	$ 975	$ 24,699	30.6	61.8	87.1	150
1.22%	$ 1,024	$ 25,991	28.5	60.8	84.1	181
1.275%	$ 1,078	$ 27,279	28.5	60.0	81.4	367
1.39%	$ 1,215	$ 31,215	28.9	59.4	78.7	263
1.55%	$ 1,223	$ 31,674	27.0	59.2	76.2	734
1.75%	$ 1,409	$ 34,008	27.2	59.0	73.0	428
1.88%	$ 1,610	$ 37,530	27.8	58.7	71.0	507
2.00%	$ 2,043	$ 46,535	27.3	59.2	64.5	4,022
All Formulas	**$ 1,664**	**$ 38,825**	**27.4**	**59.4**	**70.8**	**7,151**

TFFR RETIREE STATISTICS BY RETIREMENT TYPE

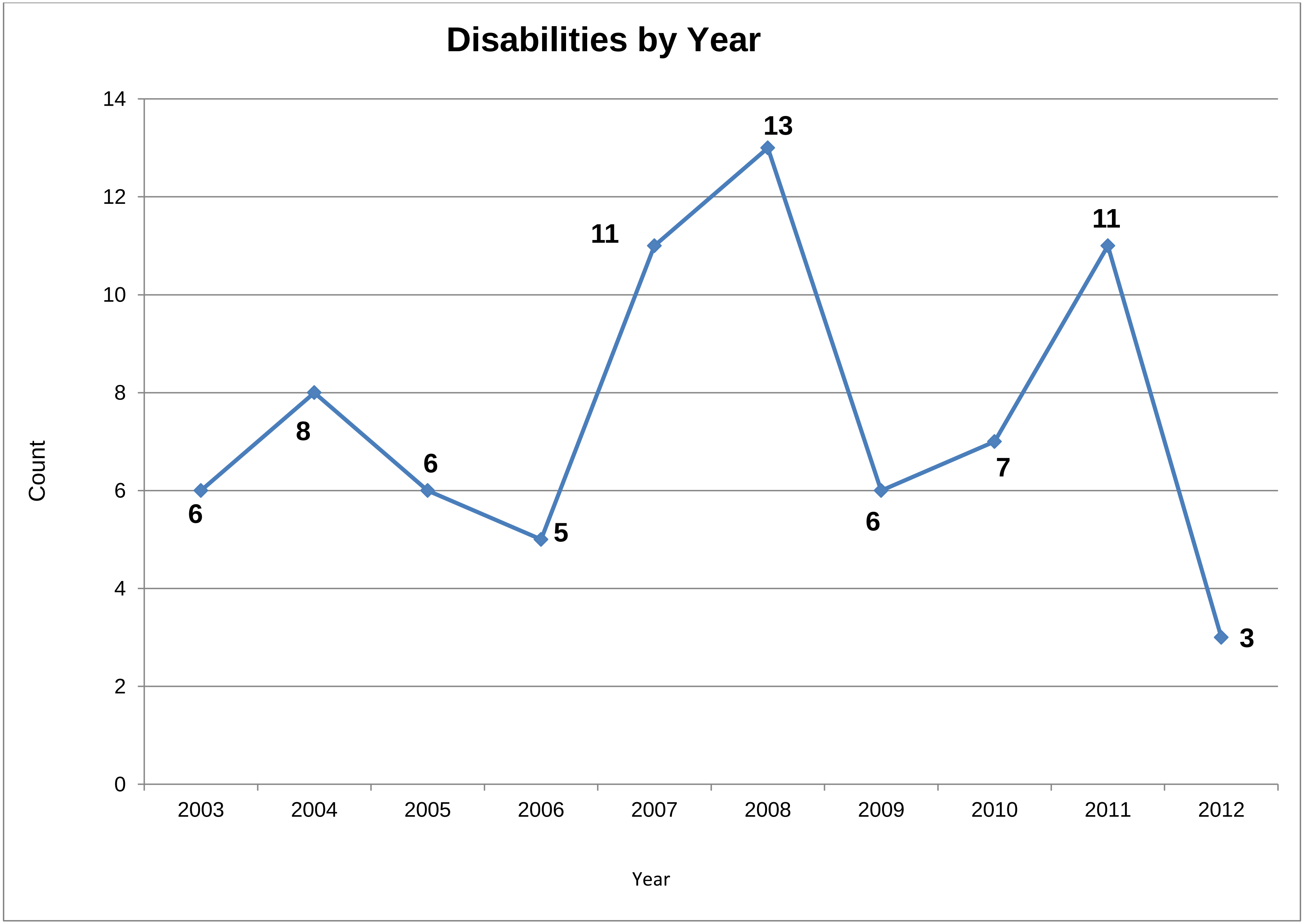
Type	Avg Monthly Pension	Avg Annual Salary	Avg Service Credit	Avg Retirement Age of Member	Avg Current Age of Recipient	Number of Retirees
Death	$ 1,083	$ 31,600	28.0	59.1	73.4	565
Disability	$ 1,135	$ 34,062	15.4	50.0	61.2	120
Early	$ 589	$ 29,440	14.8	60.0	71.0	830
Normal	$ 1,897	$ 41,038	29.6	59.5	70.7	5,616
QDRO	$ 587	$ 39,695	10.6	56.1	66.2	20
All Types	**$ 1,664**	**$ 38,825**	**27.4**	**59.4**	**70.8**	**7,151**

Disability Summary -- 1993 - 2012

• Total disabilities approved since 1993 - 2012	156*
Of 156, number of physical disabilities:	131
Of 156, number of emotional disabilities:	25
• Average number of disabilities approved per year:	8
• Of 156, number that are living and drawing benefits:	108
Of 156, number that are living and returned to work:	7
Of 156, number that are deceased:	41
• Of 156, option selected was:	
Count of Single Life:	103
Count of 100% Joint & Survivor:	32
Count of 50% Joint & Survivor:	14
Count of 5 Year Certain & Life:	2
Count of 10 Year Certain & Life:	4
Count of 20 Year Certain & Life:	1
• Of 108 living and drawing benefits:	
Average service credit in years:	15.6
Average age in years:	60
Average monthly benefit:	$1,202
Average years benefit was received:	9.4
Number of physical disabilities:	87
Number of emotional disabilities:	21
• Of 7 living and returned to work:	
Average service credit in years:	14.8
Average age in years:	57
Average monthly benefit:	$906
Average years benefit was received:	2.2
Number of physical disabilities:	5
Number of emotional disabilities:	2

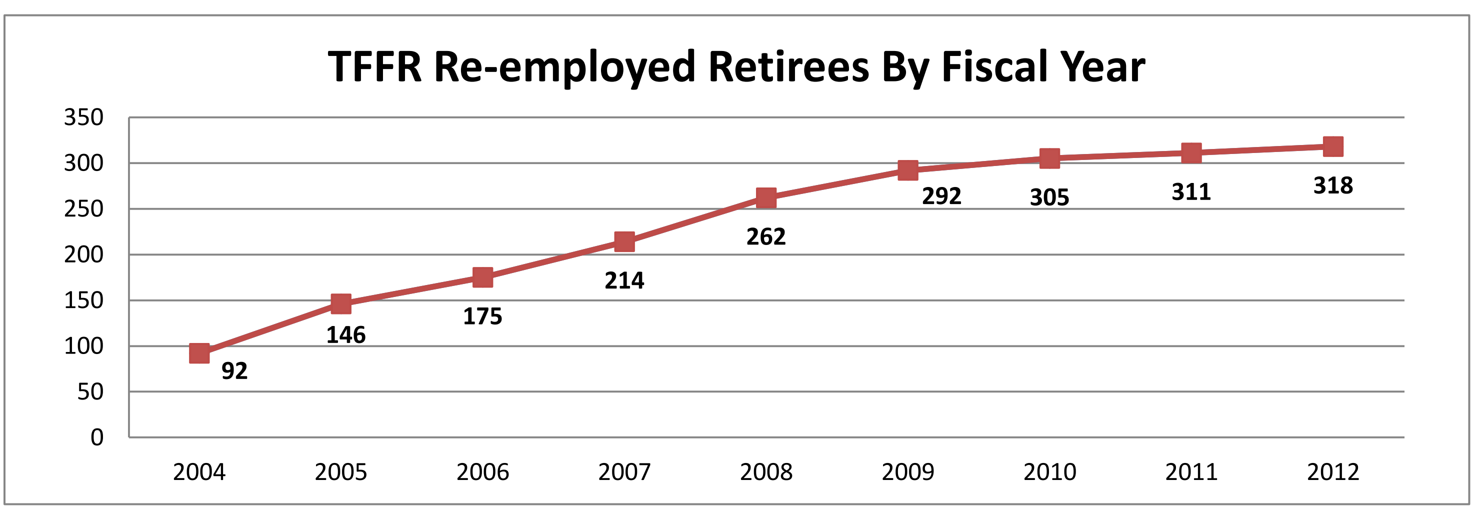
*Approved disabilities removed from total if they returned to employment then refunded or retired.

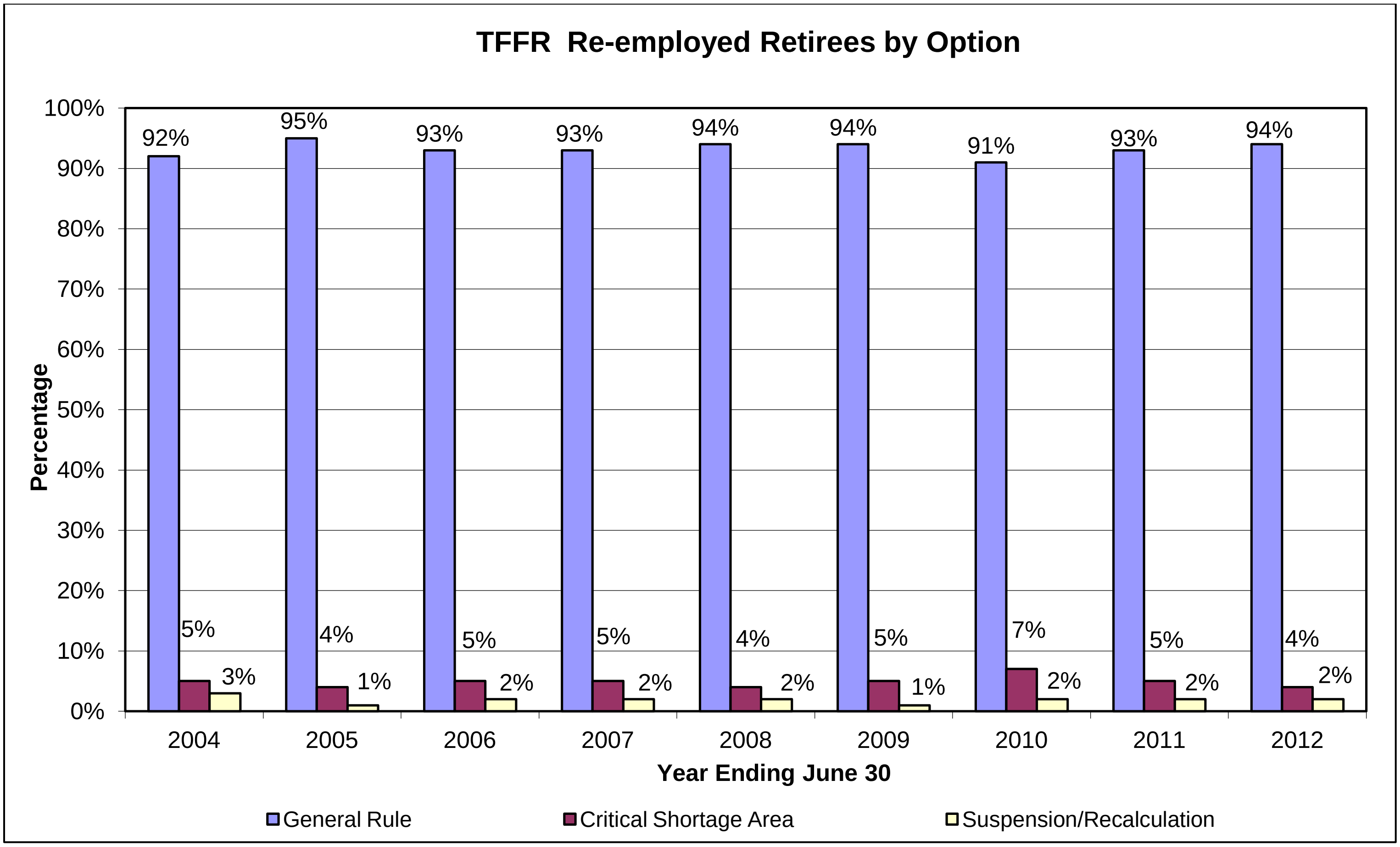
9/5/2012


Disabilities by Year
Count
Year
0
2
4
6
8
10
12
14
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
6
8
6
5
11
13
6
7
11
3

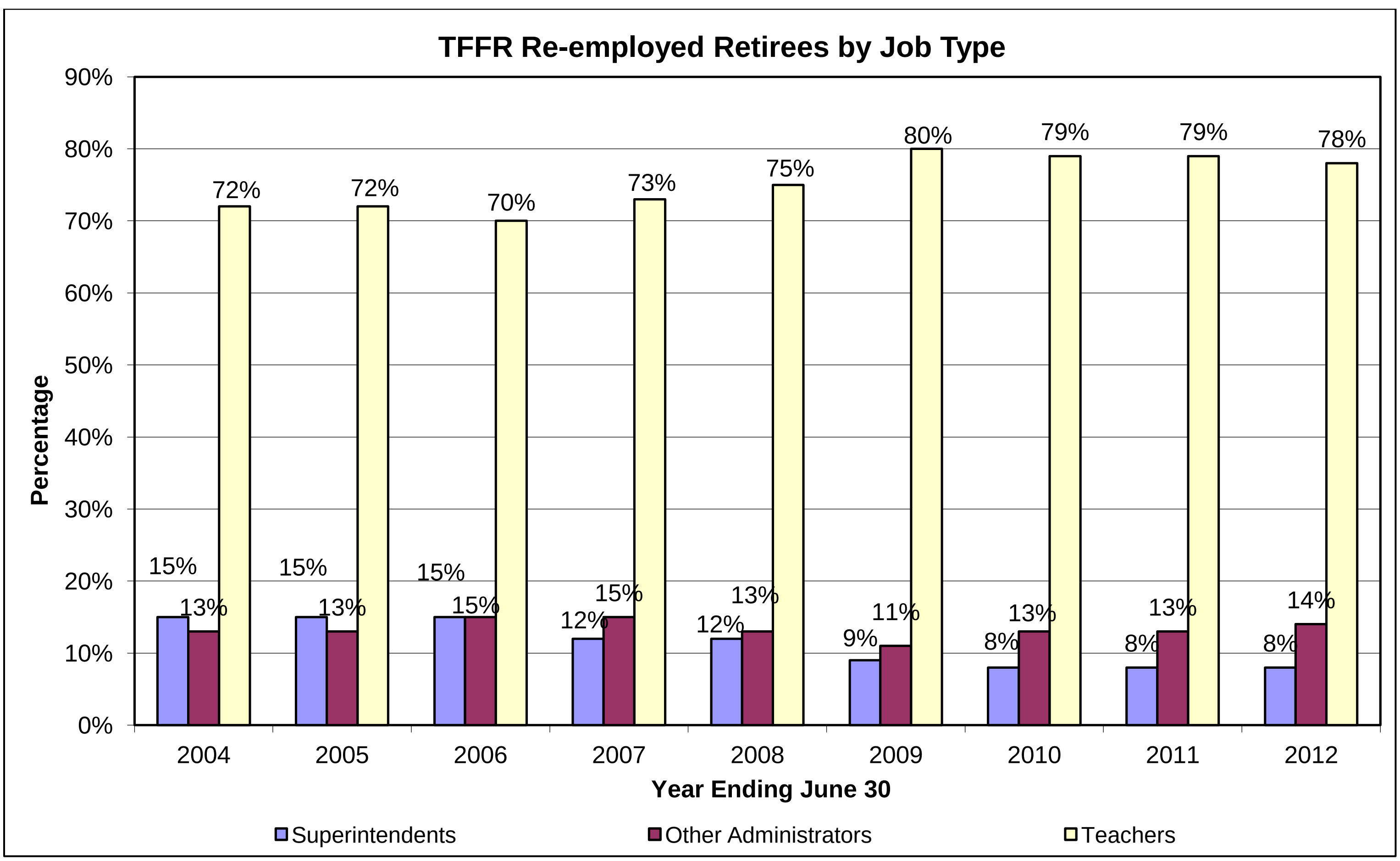
TFFR RE-EMPLOYED RETIREE STATISTICS

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total Number of Re-employed Retirees	92	146	175	214	262	292	305	311	318
Average Age	60	60	60	59	60	60	61	61	62
Average Salary	$22,00	$20,00	$21,000	$22,00	$22,151	$21,00	$23,400	$24,700	$24,500
General Rule	84	138	163	199	246	273	278	290	298
Critical Shortage	5	6	9	11	11	15	20	15	13
Suspend & Recalc	3	2	3	4	5	4	7	6	7
Foundation Donation	0	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Superintendents	14	22	27	26	32	26	24	24	26
Other Administrators	12	19	27	32	35	32	40	42	44
Teachers	66	105	121	156	195	234	241	245	248
Number of Employers			101	117	135	132	132	127	132
Critical Shortage Areas:									
Science	3	3	4	1	4	3	5	4	3
Math	1	0	0	2	2	5	5	3	1
Music	0	0	2	1	1	1	1	1	0
LD	0	0	0	0	0	1	2	1	2
Speech Therapist	0	0	0	0	0	0	0	0	0
Speech	1	1	0	0	0	0	0	0	0
Voc Ed (School/Work)	0	0	0	0	0	0	0	0	0
English	0	1	1	2	3	3	3	1	2
Language Arts	0	0	0	0	0	0	0	0	0
Industrial Arts	0	1	0	1	0	0	0	0	0
Foreign Language	0	0	1	0	0	1	2	2	2
Superintendent	0	0	1	1	1	0	0	0	1
Counselor	0	0	0	1	0	1	1	1	0
Social Studies	0	0	0	1	0	0	0	0	0
Consumer Science	0	0	0	1	0	0	0	0	0
Psychologist	0	0	0	0	0	0	1	1	1
Tech Ed	0	0	0	0	0	0	0	1	1





TFFR Re-employed Retirees by Option
Percentage
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
92%
95%
93%
93%
94%
94%
91%
93%
94%
5%
4%
5%
5%
4%
5%
7%
5%
4%
3%
1%
2%
2%
2%
1%
2%
2%
2%
2004
2005
2006
2007
2008
2009
2010
2011
2012
Year Ending June 30
General Rule
Critical Shortage Area
Suspension/Recalculation



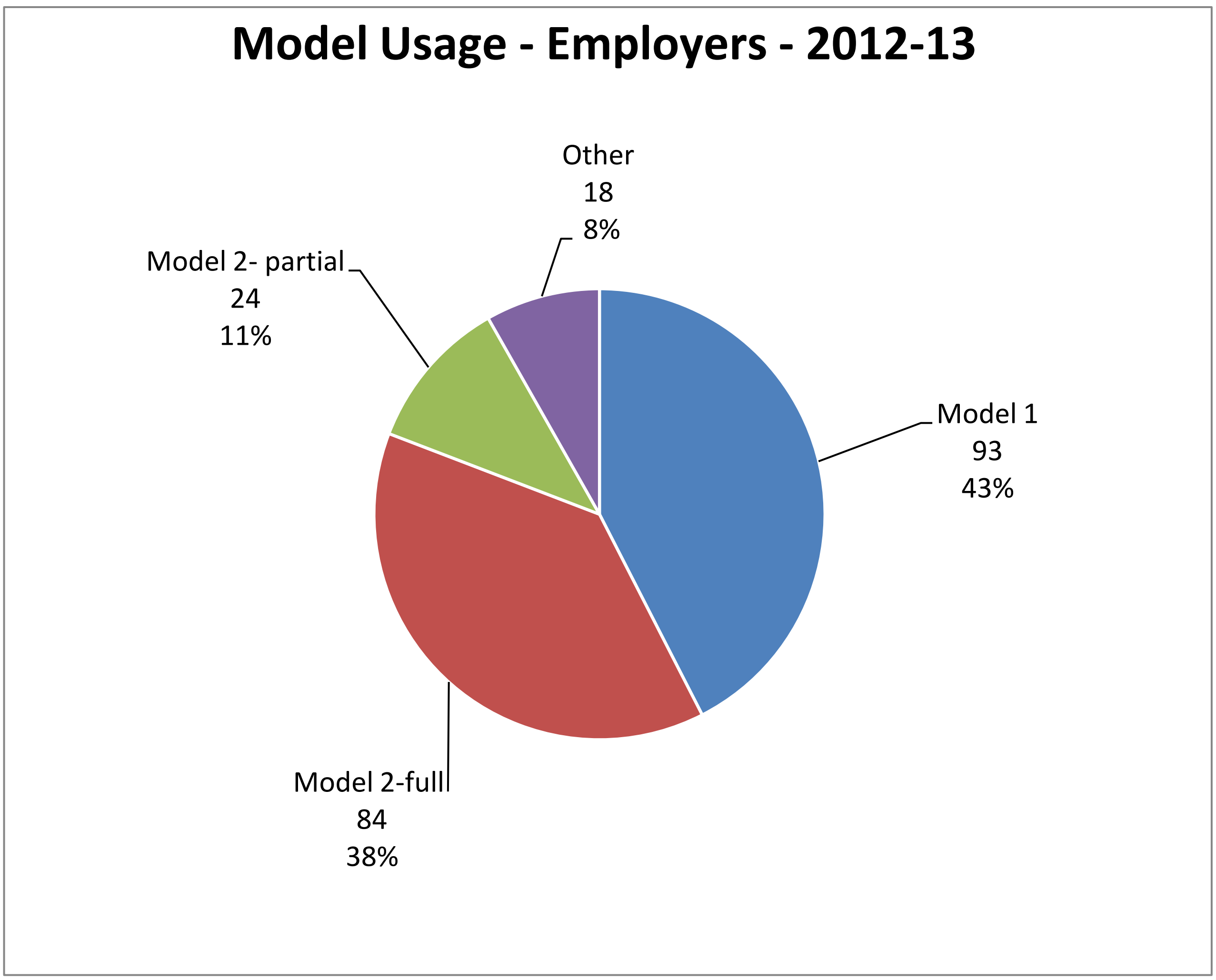
TFFR Re-employed Retirees by Job Type
Percentage
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
15%
13%
72%
15%
13%
72%
15%
15%
70%
12%
15%
73%
12%
13%
75%
9%
11%
80%
8%
13%
79%
8%
13%
79%
8%
14%
78%
2004
2005
2006
2007
2008
2009
2010
2011
2012
Year Ending June 30
Superintendents
Other Administrators
Teachers


TFFR Participating Employers
2004 - Present
Number
Year Ended June 30
300
250
200
150
100
50
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
266
260
246
244
235
231
231
226
222
219

Model Usage 2012-2013

	Employers	
Model 1	93	43%
Model 2-full	84	38%
Model 2-partial	24	11%
Other	18	8%
Total	219	

Other includes Model 0, 3, 4, 5



RETIREMENT AND INVESTMENT OFFICE
INTERNAL AUDIT UNIT
RETIREMENT PROGRAM AUDIT ACTIVITIES REPORT
FOR THE YEAR ENDED JUNE 30, 2012

OCTOBER 1, 2012

The audit objective of the Internal Audit Unit is twofold. First, provide comprehensive, practical audit coverage of the Retirement and Investment Office (RIO) programs. Second, assist RIO management, the State Investment Board (SIB), and the Teachers' Fund for Retirement Board (TFFR) by conducting special reviews or audits.

Our audit coverage is based on the Audit Plan for the fiscal year ended June 30, 2012 (Plan), which was reviewed by RIO management and the SIB Audit Committee. The Plan is consistent with the Internal Audit Unit charter and goals, and the goals of RIO. Audit effort is being directed to the needs of RIO and the concerns of management and the Audit Committee.

REGULAR AUDIT COVERAGE

Retirement Program

- **School District Reporting**

We examined school district reporting to TFFR to determine that retirement salaries reported for their members are in compliance with the definition of salary as it appears in NDCC 15-39.1-04(9). Other reporting procedures reviewed during the audit process are eligibility, calculation of service hours and that the resultant years of service reported are in compliance with NDCC 15-39.1-27, and eligibility for TFFR membership. A written report is issued after each audit is completed.

Our objective was to complete 35 school district audits during fiscal 2011. Thirty one audits were completed this year, seven more are in progress and information has been received for four more school districts.

We found that three audited districts were not in compliance, two districts were generally in compliance, and twenty six districts were in compliance with state law and state administrative code. Reporting problems identified through the audit process include:

- Understated service hours.
- Overstated service hours.
- Understated retirement salary by excluding salary for:
    1. In-staff subbing
    2. Eligible coaching
    3. Workshop/in-service stipends
    4. Advisor
    5. Contract(understated amount)

Reporting problems, continued:

- Overstated retirement salary by including:

    1. Ineligible fringe benefits
    2. Unused sick and personal leave
    3. Referee/official salary
    4. Bus driving

- Reported summer school salaries in wrong fiscal year.
- Reported ineligible part-time teachers' salaries.
- Reported salaries for members who did not have written agreements.

A written report is filed with the Deputy Executive Director and school district administrator upon completion. This report is also filed quarterly with the Audit Committee.

This is an audit area that requires special emphasis due to the level of risk identified through previous audit results. Our long-range plans include auditing each school district over a five year period.

- **Statistics for the fiscal year ending June 30, 2012**

Total districts at beginning of third cycle	231
Less: County and State institutions not included	-21
Districts with ten or fewer members not included	-34
Employers to be audited in the third cycle	176
Completed audits (from third cycle)	-63
Remaining audits	113

- **Deaths, Purchase of Service, Refunds, Long Outstanding Checks, and Long Term Annuitants**

A review of deaths, purchase of service, refunds, long outstanding checks, and long term annuitants was completed to determine that established policy and procedures are being followed by the retirement services division.

No exceptions were noted.

- **TFFR File Maintenance**

We periodically test changes made to TFFR member account data by RIO employees.

Audit change logs are generated and stored indicating any file maintenance changes made. Our external auditors recommended that internal audit review these logs on a regular basis.

No significant exceptions were noted during the fieldwork.

FINANCIAL AUDIT RESULTS

The annual financial audit of the Retirement and Investment Office for the year ended June 30, 2012 was conducted by independent external auditors from the accounting firm CliftonLarsonAllen. The firm has not yet issued the report.

SUMMARY

Based on the results of our audits, and the audits performed by independent, external auditors, we formed the opinion that adequate controls have been provided over these activities, and that the controls were working effectively and efficiently. We consider the Retirement Services Division to be highly effective in accomplishing its assigned responsibilities. We believe this can be attributed to a very knowledgeable staff; good communication and feedback between management and staff; thorough on-the-job training for staff; and comprehensive job instructions.

At the direction of the Audit Committee, audit effort was directed to activities that are of greatest concern to the Committee, RIO management and the external auditors.

We are working closely with RIO management, the Audit Committee, and our external auditors to develop comprehensive, practical audit coverage for the retirement program.

LOOKING AHEAD

The focus of the internal audit function has been on school district reporting to TFFR for its members. We will continue to work on the other areas of audit coverage outlined in our fiscal 2013 Work Plan which includes file maintenance review and any special projects as directed or requested by Executive Director or the SIB Audit Committee.

We will continue to work closely with our external auditors to increase the efficiency, effectiveness, and economy of the total audit activity.

MEMORANDUM

TO: TFFR Board
FROM: Fay Kopp, Interim Executive Director – Chief Retirement Officer
DATE: October 18, 2012
SUBJ: RIO Organizational Charts

As discussed at the September TFFR board meeting, the TFFR Board has general statutory authority over the retirement program, but does not have statutory authority to govern the RIO agency. The governing authority for the RIO agency is the State Investment Board. At the September meeting, the TFFR Board approved the following motion: "TFFR supports discussion relating to the position of Executive Director – CIO in its current interim form." The TFFR Board's motion was communicated to the SIB at its September SIB meeting.

At the September SIB meeting, the SIB asked RIO staff to develop some possible revised organizational structures for RIO. Connie, Darren, and I worked through a variety of potential scenarios, and are presenting four organizational charts for discussion at the October SIB meeting. They range from generally keeping RIO intact, to dissolving RIO and dividing the SIB and TFFR programs into two separate agencies. Please note that these organizational charts are intended to serve as a starting point for more in depth discussions by the SIB. Four charts are included:

1) **Base** RIO organizational chart as of January 2012. This was the structure that was in place at the beginning of the year (after Darren Schulz was hired as Deputy CIO, and before John Geissinger left as Executive Director/CIO.)

2) **Interim** RIO organizational chart as of June 2012. This is generally the structure that has been in place on a temporary basis since this summer (after John left when Darren was named Interim CIO, and Fay was named Interim Executive Director/Chief Retirement Officer).

3) **Modified** RIO organizational chart keeping RIO in place, but trying to divide the TFFR and SIB programs more distinctly.

4) **Separate** SIB and TFFR organizational charts. Dissolve RIO, and divide the administration of the SIB and TFFR programs into two separate agencies with separate boards, staffs, and offices.

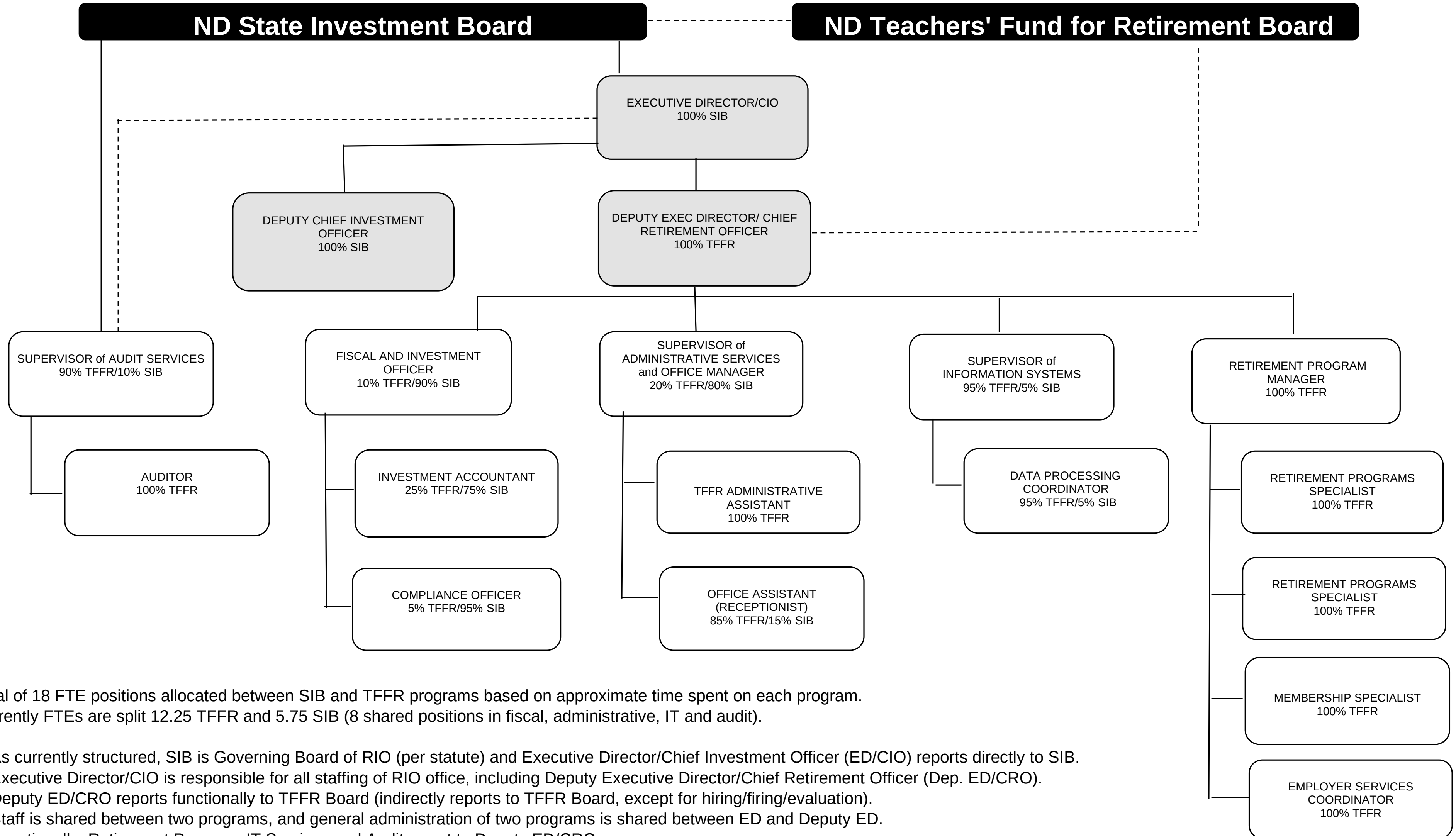
Connie is working on some preliminary cost estimates for #4 which will be presented at the meeting.

Additionally, depending upon what type of board governance and organizational changes are desired, we would need to ask Jan Murtha, Attorney General's Office, to determine if and what legislative changes would be needed.

These SIB materials are being provided for the TFFR Board's information.

Attachments (4)

ND Retirement and Investment Office (RIO)
Agency Organizational Chart (January 2012)

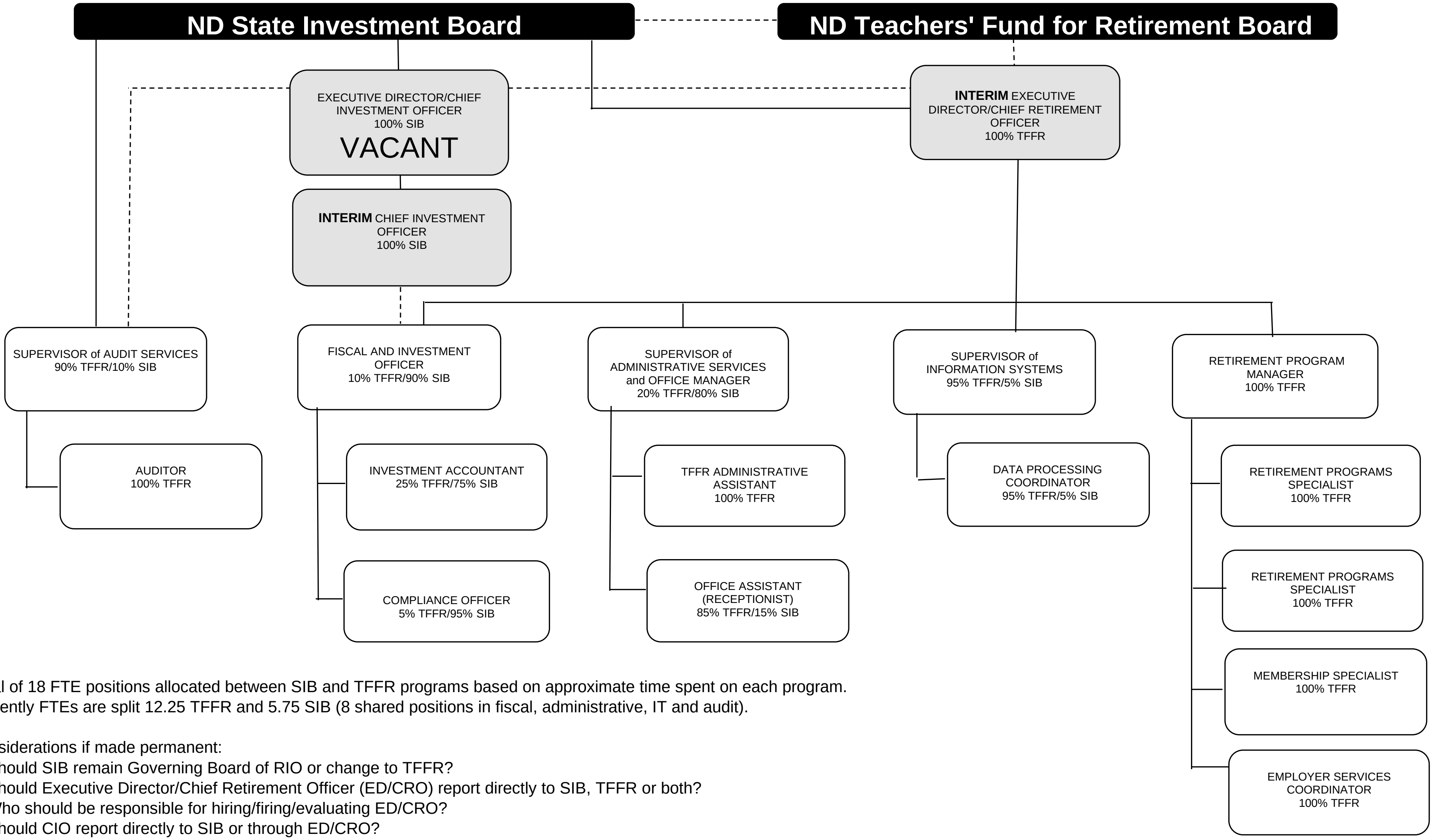


Total of 18 FTE positions allocated between SIB and TFFR programs based on approximate time spent on each program.
Currently FTEs are split 12.25 TFFR and 5.75 SIB (8 shared positions in fiscal, administrative, IT and audit).

1. As currently structured, SIB is Governing Board of RIO (per statute) and Executive Director/Chief Investment Officer (ED/CIO) reports directly to SIB.
2. Executive Director/CIO is responsible for all staffing of RIO office, including Deputy Executive Director/Chief Retirement Officer (Dep. ED/CRO).
3. Deputy ED/CRO reports functionally to TFFR Board (indirectly reports to TFFR Board, except for hiring/firing/evaluation).
4. Staff is shared between two programs, and general administration of two programs is shared between ED and Deputy ED.
5. Functionally, Retirement Program, IT Services and Audit report to Deputy ED/CRO.

ND Retirement and Investment Office (RIO)
Interim Agency Organizational Chart (June 2012)

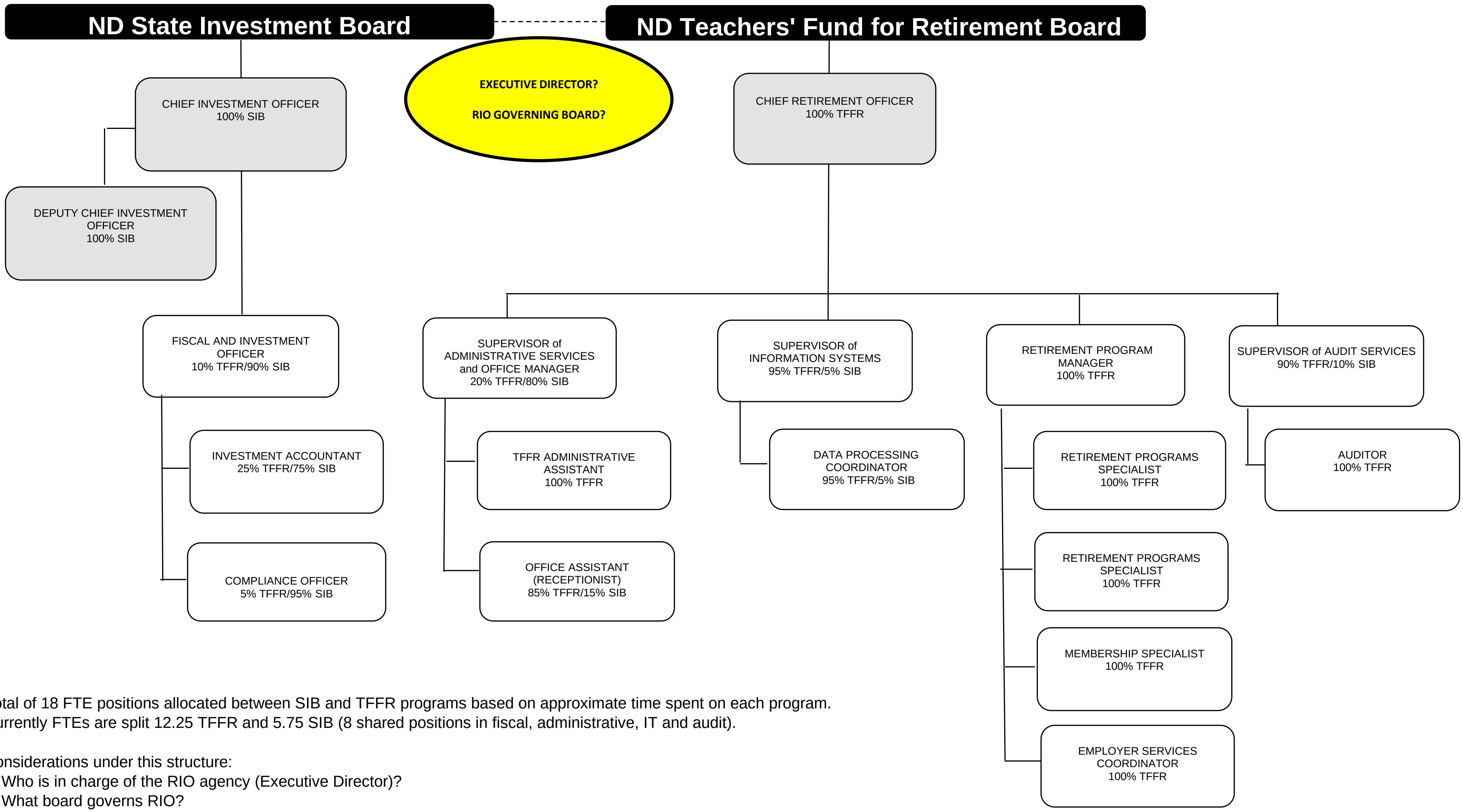
#2



Total of 18 FTE positions allocated between SIB and TFFR programs based on approximate time spent on each program.
Currently FTEs are split 12.25 TFFR and 5.75 SIB (8 shared positions in fiscal, administrative, IT and audit).

Considerations if made permanent:
1. Should SIB remain Governing Board of RIO or change to TFFR?
2. Should Executive Director/Chief Retirement Officer (ED/CRO) report directly to SIB, TFFR or both?
3. Who should be responsible for hiring/firing/evaluating ED/CRO?
4. Should CIO report directly to SIB or through ED/CRO?
5. Who should be responsible for hiring/firing/evaluating CIO?
6. Should SIB Audit Committee responsibilities be modified?

ND Retirement and Investment Office (RIO) Modified Agency Organizational Chart

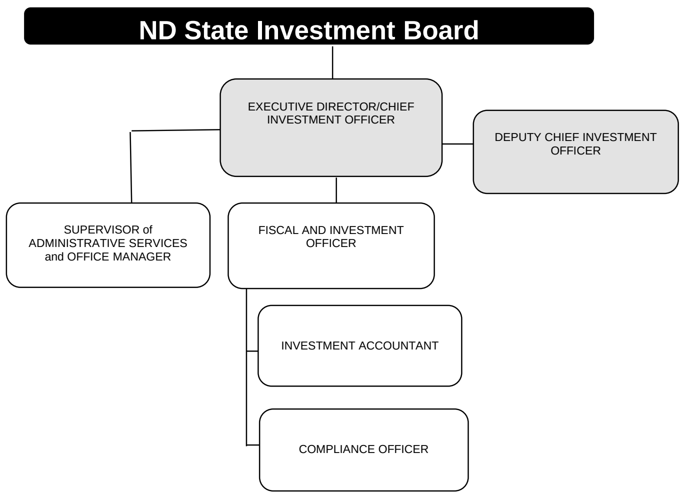


Total of 18 FTE positions allocated between SIB and TFFR programs based on approximate time spent on each program.
Currently FTEs are split 12.25 TFFR and 5.75 SIB (8 shared positions in fiscal, administrative, IT and audit).

Considerations under this structure:
1. Who is in charge of the RIO agency (Executive Director)?
2. What board governs RIO?
3. Should the program officers (CIO and CRO) report directly to their corresponding boards?
4. Who should make hiring/firing decisions of program officers?
5. To whom should shared positions report?

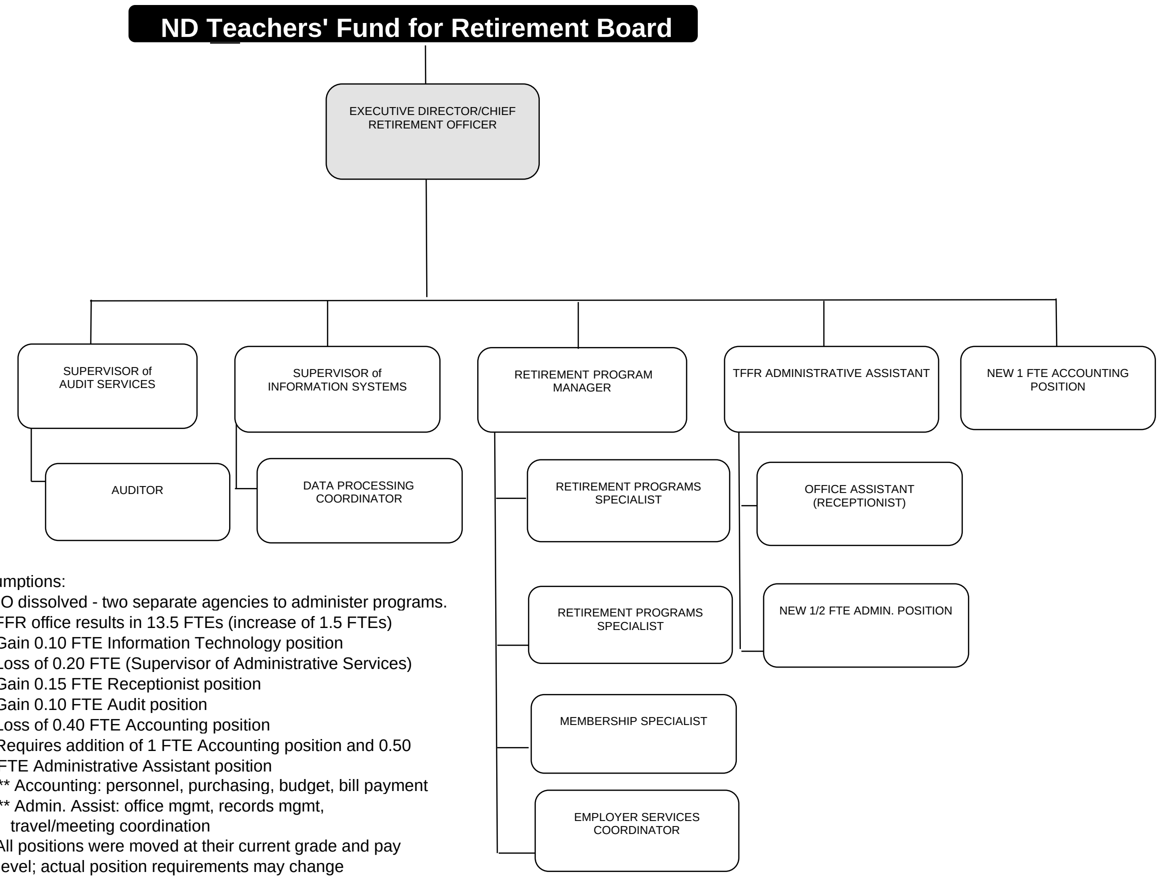
Assumptions used in this model:
1. Shared positions split based on majority of time spent on programs.
2. Internal Audit program changed to Audit/Compliance division of TFFR program based on actual work performed.

ND STATE INVESTMENT BOARD
Agency Organizational Chart



Assumptions:
1. RIO dissolved - two separate agencies to administer programs.
2. SIB office results in 6 FTEs (increase of 0.25 FTEs)
   * Loss of 0.10 FTE Information Technology position (could outsource to ITD instead)
   * Loss of 0.15 FTE Receptionist position but Gain 0.20 FTE Administrative Assistant position
   * Gain 0.40 FTE Fiscal Management position
   * Loss of 0.10 FTE Audit position
   * All positions were moved at their current grade and pay level; actual position requirements may change
3. Increased costs anticipated for SIB clients.

ND TEACHERS' FUND FOR RETIREMENT
Agency Organizational Chart



Assumptions:
1. RIO dissolved - two separate agencies to administer programs.
2. TFFR office results in 13.5 FTEs (increase of 1.5 FTEs)
   * Gain 0.10 FTE Information Technology position
   * Loss of 0.20 FTE (Supervisor of Administrative Services)
   * Gain 0.15 FTE Receptionist position
   * Gain 0.10 FTE Audit position
   * Loss of 0.40 FTE Accounting position
   * Requires addition of 1 FTE Accounting position and 0.50 FTE Administrative Assistant position
     ** Accounting: personnel, purchasing, budget, bill payment
     ** Admin. Assist: office mgmt, records mgmt, travel/meeting coordination
   * All positions were moved at their current grade and pay level; actual position requirements may change
3. Increased costs anticipated for TFFR.

ND STATE INVESTMENT BOARD

AGENDA
Friday, October 26, 2012
Peace Garden Room - State Capitol
Bismarck ND

I. CALL TO ORDER AND ACCEPTANCE OF AGENDA

II. ACCEPTANCE OF MINUTES (September 28, 2012)

III. INVESTMENTS

A. Bank of North Dakota - Mr. Hardmeyer & Mr. Porter (enclosed) (30 min)
B. Pension Trust and Insurance Trust FY2012 Performance Review - Mr. Schulz (enclosed) (30 min)
C. Tribune Company - Ms. Murtha (5 min)
D. NASIO Highlights - Mr. Schulz (10 min)

IV. GOVERNANCE

A. Audit Committee Liaison Report **(Board Acceptance Needed)** - Mr. Gessner (enclosed) (5 min)
B. Discussion on Structure of Retirement and Investment Office - Ms. Kopp (enclosed)

V. QUARTERLY MONITORING - 9/30/12 (enclosed). (Questions Only - Board Acceptance) (5 min)

A. Executive Limitations/Staff Relations - Ms. Kopp (enclosed).
B. Budget/Financial Conditions - Ms. Flanagan (enclosed).
C. Investment Program - Mr. Schulz (enclosed).
D. Retirement Program - Ms. Kopp (enclosed).

VI. OTHER

Next Meetings:

SIB meeting - November 16, 2012, 8:30 a.m. - Peace Garden Room
SIB Audit Committee meeting - November 16, 2012, 1:00 p.m. - Peace Garden Room

VII. ADJOURNMENT

NORTH DAKOTA STATE INVESTMENT BOARD
MINUTES OF THE
SEPTEMBER 28, 2012 BOARD MEETING

BOARD MEMBERS PRESENT:
Drew Wrigley, Lt. Governor, Chair
Mike Sandal, Vice Chair
Clarence Corneil, TFFR Board
Levi Erdmann, PERS Board
Lance Gaebe, Land Commissioner
Mike Gessner, TFFR Board
Adam Hamm, Insurance Commissioner
Howard Sage, PERS Board
Kelly Schmidt, State Treasurer
Cindy Ternes, Workforce Safety & Insurance
Bob Toso, TFFR Board

STAFF PRESENT:
Connie Flanagan, Fiscal & Investment Officer
Bonnie Heit, Office Manager
Fay Kopp, Interim Executive Director
Leslie Moszer, Compliance Officer
Darren Schulz, Interim CIO
Susan Walcker, Investment Accountant

OTHERS PRESENT:
Weldee Baetsch, former SIB trustee
Brian Birnbaum, Mercer
Erica Cermak, APT
Senator Randel Christmann, Legacy & Budget Stabilization Fund Advisory Board (Advisory Board)
Jeff Engleson, Land Dept.
Paul Erlendson, Callan Associates
Cory Fong, Advisory Board
Eric Hardmeyer, Advisory Board
Representative Keith Kempenich, Advisory Board
Josh Kevan, RV Kuhns
Bruce Klootwyk, Raymond James
Ron Klotter, RV Kuhns
John McLaughlin, RV Kuhns
Brian Murphy, Towers Watson
Jan Murtha, Attorney General's Office
Tricia Opp, Procurement Office
Sara Palhke, Legislative Council
Eugene Podkaminer, Callan Associates
Scott Rising, ND Soybean Growers
Mark Ruloff, Towers Watson
Pam Sharp, Advisory Board

CALL TO ORDER:

Lt. Governor Wrigley called the State Investment Board (SIB) meeting to order at 8:30 a.m. on Friday, September 28, 2012, at the State Capitol, Peace Garden Room, Bismarck, ND.

A quorum was present for the purpose of conducting business.

AGENDA:

MR. GESSNER MOVED AND MR. CORNEIL SECONDED TO ACCEPT THE SEPTEMBER 28, 2012, AGENDA AS REVISED.

AYES: COMMISSIONER GAEBE, TREASURER SCHMIDT, MR. SANDAL, COMMISSIONER HAMM, MR. CORNEIL, MS. TERNES, MR. GESSNER, MR. ERDMANN, MR. TOSO, MR. SAGE, AND LT. GOVERNOR WRIGLEY
NAYS: NONE
MOTION CARRIED

MINUTES:

The minutes were considered from the August 24, 2012, meeting.

COMMISSIONER GAEBE MOVED AND COMMISSIONER HAMM SECONDED TO ACCEPT THE AUGUST 24, 2012, MINUTES AS WRITTEN.

AYES: MR. GESSNER, COMMISSIONER GAEBE, MR. SAGE, MS. TERNES, TREASURER SCHMIDT, MR. TOSO, COMMISSIONER HAMM, MR. CORNEIL, MR. ERDMANN, MR. SANDAL, AND LT. GOVERNOR WRIGLEY
NAYS: NONE
MOTION CARRIED

INVESTMENTS:

City of Bismarck – Ms. Flanagan informed the SIB the City of Bismarck recently completed an asset liability study on the Employees and Police pension plans and have revised their asset allocations. Ms. Flanagan requested acceptance of the revised asset allocations.

TREASURER SCHMIDT MOVED AND MS. TERNES SECONDED TO ACCEPT THE REVISED ASSET ALLOCATIONS FOR THE CITY OF BISMARCK EMPLOYEES AND POLICE PENSION PLANS.

AYES: MR. CORNEIL, MR. ERDMANN, COMMISSIONER GAEBE, MR. GESSNER, COMMISSIONER HAMM, MR. SAGE, MR. SANDAL, TREASURER SCHMIDT, MS. TERNES, MR. TOSO, AND LT. GOVERNOR WRIGLEY
NAYS: NONE
MOTION CARRIED

Legacy Fund – The Legacy and Budget Stabilization Fund Advisory Board (Advisory Board), at their August 23, 2012, meeting, recommended the SIB arrange to contract with an investment consultant to conduct an asset allocation/spending study on the Legacy Fund.

Mr. Schulz explained his process for identifying suitable candidates to conduct an asset allocation/spending study. Candidates were selected based on a variety of criteria, including the following: experience conducting asset allocation and spending policy studies for institutional clients, experience with special purpose funds funded by natural resources, and experience with newly created funds with little to no spending policy.

The SIB heard proposals from Towers Watson and Mercer.

The SIB recessed at 10:15 a.m. and reconvened at 10:30 a.m.

The SIB heard proposals from RV Kuhns and Callan Associates.

THE SIB recessed at 12:30 p.m. and reconvened at 12:45 p.m.

The SIB reviewed and discussed the proposals. After further review and discussion,

MR. SAGE MOVED AND COMMISSIONER GAEBE SECONDED TO AWARD THE CONTRACT TO RV KUHNS TO CONDUCT AN ASSET ALLOCATION/SPENDING STUDY ON THE LEGACY FUND.

AYES: TREASURER SCHMIDT, MR. GESSNER, COMMISSIONER HAMM, MS. TERNES, COMMISSIONER GAEBE, MR. SAGE, MR. TOSO, MR. SANDAL, MR. ERDMANN, MR. CORNEIL, AND LT. GOVERNOR WRIGLEY
NAYS: NONE
MOTION CARRIED

The SIB thanked Mr. Schulz for his due diligence which resulted in four excellent proposals for their consideration. The Advisory Board will work with RV Kuhns to complete the asset allocation/spending study. The study is expected to be completed in approximately eight weeks at which time the results will be presented to the SIB for their review and possible acceptance.

The Tribune Company report was tabled until the October 26, 2012, meeting.

GOVERNANCE:

Retirement and Investment Office (RIO) Structure – Mr. Gessner informed the SIB the Teachers' Fund for Retirement (TFFR) board discussed the structure of RIO at their September 27, 2012, meeting and reported the TFFR Board supports discussion relating to the position of ED/CIO in its current interim form. After discussion, the SIB directed staff to develop some possible revised organizational structures for RIO, along with any additional costs, and distribute those to the SIB prior to their October 26, 2012, meeting at which time the SIB will continue their discussion on the structure of RIO.

MONITORING:

The Pension Trust and Insurance Trust FY2012 Performance Review report was tabled until the October 26, 2012, meeting.

The next SIB meeting is scheduled for October 26, 2012, at 8:30 a.m., at the State Capitol, Peace Garden Room, Bismarck, ND.

The SIB Audit Committee meeting scheduled for September 28, 2012 was cancelled and will be rescheduled.

ADJOURNMENT:

Lt. Governor Wrigley adjourned the meeting at 1:35 p.m.

Respectfully Submitted:

____

Lt. Governor Wrigley, Chair
State Investment Board

____

Bonnie Heit
Assistant to the Board

Solving the public pension plan funding crisis

Fund executives say it will take more than just investing acumen to fix the problem

By: Hazel Bradford Pensions & Investments **, Published: October 1, 2012**

Severely underfunded public defined benefit plans will have to try a bit of everything to shrink liabilities, from benefit cuts to contribution hikes to accelerated payments, and paying more attention to costs overall.

According to *Pensions & Investments*' analysis of funds' annual report data, the average funding ratio of the 100 largest public pension plans dipped slightly in fiscal year 2011, to 73.64%, with unfunded liabilities increasing 4.1% from the previous year. One positive note, however, comes from Wilshire Associates' annual measurement of 102 systems' 2011 actuarial data, which showed pension assets growing faster, at 16.4%, than liabilities, which grew at 3.3%.

Wilshire attributed the latest asset growth to strong global equity performance, along with more moves into other non-traditional assets. “There has definitely been over time a move into a larger number of asset classes, and more diversification into global,” said Wilshire Associates Managing Director Steven J. Foresti in Los Angeles.

But he and other public plan experts caution that investing is not the solution to plan underfunding, especially for the many plans that are still writing down investment losses that occurred in the recession. “It would take some really attractive returns short term to invest your way out, and one of those routes requires taking more risks,” Mr. Foresti said.

Meredith Williams, executive director of the National Council on Teacher Retirement and former executive director at the $38.2 billion Public Employees' Retirement Association of Colorado, has seen “some pretty exotic modeling” of various scenarios as public plans start to think about risk management. He is also hearing more debate over active vs. passive management. “Maybe you can beat the market short term, but can we consistently beat the market over the longer term? The fee structure is so attractive on the passive side, and technology has made the passive portfolio so cost-efficient.”

David Driscoll, a principal with Buck Consultants, Boston, agrees that in the public arena, “people are looking around for ways to save.”

“One way to do that is to spend less money on the management of the fund. It's certainly going to result in more attention to benchmarks. They look for ways to boost returns, and we do see more and more funds talking about index funds,” Mr. Driscoll said. While he thinks active managers will be popular as long as the results are good, “they're under tremendous pressure to prove that they add value. There isn't a lot of money on the budget to absorb bad experiences.”

The public sector does have some breathing room for addressing underfunding problems because of the funds' long-term horizons. “It took years to get in that hole, and it's probably going to take years to get out,” said Mr. Williams. “The first thing you do is stop the bleeding,” starting with more realistic benefit promises for new hires, then existing employees, and even retirees, if necessary, he said.

Far behind

Disconnecting benefit promises from actuarial calculations got the Teachers' Retirement System of Louisiana, Baton Rouge, so far behind that in 1989, the state created a schedule to pay off its unfunded pension liability by 2029. Like a mortgage, the initial payments have gone more toward slowing the growth of the liability, but within a year from now, TRSL should be making bigger inroads in the liability itself, said Chief Investment Officer Philip Griffith. In years when the $13.7 billion plan falls short of its 8% rate of return target, employer contributions are raised to make up any shortfall in the payment to the fund. “We have a plan. We don't adjust the portfolio for the funding status,” said Mr. Griffith, a sentiment echoed by many other administrators.

The $8.8 billion Louisiana State Employees' Retirement System, also in Baton Rouge, has a similar plan, with payments and a recent market return of 24% bumping the funded ratio to 57.6% in fiscal 2011 from 56% in 2010.

For addressing unfunded liabilities from the past, a lot depends on a plan sponsor's ability — or willingness — to make contributions toward present liabilities, let alone past-due amounts. Four of every 10 plans in the National Association of State Retirement Administrators 2010 public funds survey received less than 90% of required contributions. According to State Budget Solutions, a non-profit organization advocating state budget reform, only four of the 15 states with the largest liabilities — New York, Florida, Wisconsin and Georgia — consistently make their annual required contribution, and only two states, Delaware and South Dakota, fully fund their plans every year.

Officials at the New Hampshire Retirement System, Concord, which was 57.41% funded at the end of FY 2011, recently got out of “the hole we were in” by legislating an end to long amortization periods that delayed funding decisions indefinitely, according to spokesman Marty Karlon. The New Hampshire fund hopes to add $3 billion over 20 years from employer cost cuts, he said. Rhode Island officials are also projecting a $3 billion drop in unfunded liability through some recent reforms.

Worse first

Sometimes it has to get worse first. That was certainly true in Florida, where chronically underfunded pension plans were closed in 1970 to create the current $125.8 billion Florida Retirement System, Tallahassee, while a constitutional amendment was passed to promote responsible funding. It took 20 years of extra contributions to make up the deficit, but the system weathered the 2008 crisis in much better shape than previous market downturns, said Florida State Board of Administration spokesman Dennis MacKee. After partial funding payments in the past two years, FSBA administrator and CIO Ashbel C. Williams, Jr. is now asking state officials "to consider more robust funding" of the unfunded liability , and to revisit lowering the assumed rate of return to 7.25% from the current 7.5%, Mr. MacKee said.

For well-funded plans, it's all about discipline. Kevin Murray, New York State executive deputy comptroller, credits the $150.6 billion New York State Common Retirement Fund's consistently high funding levels, including 94.34% in fiscal 2011, to the state's conservative cost calculations and a longstanding habit of making full contributions. "That has made a big difference," said Mr. Murray. "We were above 100% funded when the market (downturn) hit, which gave us a cushion. If you stick to the discipline, you will be able to recover."

Mr. Murray understands the temptation in well-funded states to hold back pension payments, "but once you zero something out, it's very hard to get it back in the budget," he said.

David Craik, executive director of the $7 billion Delaware Public Employees' Retirement System, Dover, agreed. His board in 2002 had the Legislature add a 2% floor to employer contributions, after they had dipped to zero when the system was "too well funded." For the system that was 90.8% funded in 2011, "probably the biggest thing is that state has consistently paid 100% of its ARC," said Mr. Craik. It also helps that the system is in the top quartile on investment returns, and the state tweaks benefit levels and increases contributions to stay on track.

'Good habits'

"Part of the formula is having good habits and not changing them," said Janet Cowell, state treasurer and sole trustee of the $74.5 billion North Carolina Retirement Systems, Raleigh. "If you get off the path, then you're in the wilderness." The North Carolina pension fund has exceeded 100% funding at times, and the state missed making its full contribution only once in 70 years. Ms. Cowell also credits her status as an elected official for added accountability. "It sets the tone," she said.

That will be helpful when legislators convene to figure out next year's pension funding and related issues, including a more diversified investment strategy for a portfolio with a large fixed-income component, "as opposed to putting more taxpayer money into the system," Ms. Cowell said. "Even for well-funded plans, there are a lot of conversations."

Perhaps the biggest challenge is in Illinois, with a combined unfunded liability of $83 billion for the $36 billion Illinois Teachers' Retirement System, Springfield, the $13 billion Illinois State Universities Retirement System, Champaign; and three systems with combined assets of $10.3 billion overseen by the Chicago-based Illinois State Board of Investment. Gov. Pat Quinn has committed $5.2 billion to the five systems this fiscal year, which represents 15% of the state's general revenue spending. But he also put legislators on notice that "everything is on the table" to reach a goal of 100% funding by 2042, including benefit reductions, contribution increases from both employees and employers, and a 30-year funding payment plan, said spokeswoman Kelly Kraft.

“It all comes down to political will,” said Hank Kim, executive director of the National Conference on Public Employee Retirement Systems, Washington. “I think over the next 12 to 18 months, you'll see that sink in.”

Some public pension execs worry new GASB rule will add fuel to fire

By: Hazel Bradford, Pensions & Investments, Published: October 1, 2012

Public pension plan executives keeping a watchful eye over their funding levels will have another number to worry about next year when new Governmental Accounting Standards Board rules usher in a stark indicator: net pension liability.

Under current GASB accounting and disclosure methods, public pension plans have focused on their annual required contribution, which is used to set annual pension funding targets. That figure will now slip to the footnotes while the total unfunded liability, instead of the current amount due, goes on the balance sheet. Intended to make public plans report more like their corporate counterparts, the new rules are expected to make underfunded plans look worse, and even relatively well-funded ones less so.

Some public pension plan sponsors and proponents worry that a higher pension liability figure will make defined benefit plans harder than ever to defend, and at the very least stir up misconceptions. Plan executives are also braced for the potential of a higher liability number to jeopardize credit ratings that could increase governments' borrowing costs and further strain limited budget resources.

Optimists hope the dramatic change will give plan sponsors the leverage they need to collect overdue contributions and keep funding on track, which would also mean more money to invest.

One concern is the potential for confusion about which number to track, and what shape a plan really is in. Particularly in a low-interest-rate environment that keeps many public plans' funding levels low already, “I think the GASB standards will add additional confusion about the funded status,” said Kim Nicholl, Segal Co. senior vice president and leader of the firm's National Public Sector Retirement Practice in Chicago.

Also troubling is the requirement that seriously underfunded plans use more conservative discount rates to calculate their liabilities. Designed to keep plans funded above that trigger point, the lower discount rate is likely to cause some panic over long-term viability of those plans. The Center for Retirement Research at Boston College estimates that single change would see 2010 aggregate funding ratios for state and local pension plans plummet to 53% from 77%.

The new standards implement two sets of rules, one for government employers and one for public pension plan administrators, that go into effect for fiscal plan years beginning after June 15, 2013, and June 15, 2014, respectively.

State budget officials were worried enough to convene in August a pension funding task force of advocacy groups like the Center for State and Local Government Excellence, Washington, to get ready for the new rules and to find “a rational way” to figure out how much employers need to pay, both toward current costs and to reduce unfunded liabilities. The task force would like governments to adopt formal pension funding policies apart from GASB to ensure not only clear reporting, but also the funding discipline to get pension promises paid, but no formal proposal has been made yet.

“We are working with a lot of plans” to prepare for the new GASB rules, said Ms. Nicholl. “As you can imagine, there are a lot of stakeholders.”

David Driscoll, a Boston-based principal with Buck Consulting, thinks the pending GASB changes will expand the role of actuaries and consultants to help plans navigate the new reporting waters. “There is going to be the need for defensible, respectable statistics. It's a different era.”

Ohio governor inks 5 state pension reform bills

By Rob Kozlowski | September 27, 2012 1:03 pm

Under the reforms, employee contributions to the $62.6 billion Ohio State Teachers' Retirement System increase to 14% from 10%, effective July 1, 2013; while employee contributions to the $12.4 billion Ohio Police & Fire Pension Fund will increase to 12.25% from 10% in annual increments of 0.75 percentage points, beginning July 2, 2013. Employee contributions to the $700 million Ohio State Highway Patrol Retirement System will increase to 14% from 10%.

Employee contributions to the $76 billion Ohio Public Employees Retirement System and $9.9 billion Ohio School Employees Retirement System are not changing.All five pension funds are based in Columbus.

Other reforms among the five pension funds included changes to cost-of-living increases and retirement ages, although not all the pension funds made those changes. Mr. Kasich signed the bills Wednesday. The bills cleared the Ohio Legislature on Sept. 12.

10 States Where the Public Pension Fight Is Fierce

By THE ASSOCIATED PRESS, October 7, 2012

Many are dealing with big pension bills by reducing retirement benefits. Here's a look at 10 states that have taken steps to address unfunded pension liabilities — or the amount of money the state has to pay out but for which it has no funding in the pension pool.

CALIFORNIA

Unfunded liability: $100 billion in the Public Employees' Retirement System and $65 billion in the State Teachers' Retirement System.

Changes: Gov. Jerry Brown last month signed legislation expected to save billions of dollars in coming years by increasing the retirement age for new employees, limiting annual pension payouts to $132,120 and requiring workers who are not contributing half of their retirement costs to pay more. San Diego this year moved its city workers to a defined contribution plan similar to a 401(k).

Court challenges: Recent pension changes in San Diego and San Jose are being challenged. A state worker's organization says it's considering a challenge to the state changes.

ILLINOIS

Unfunded liability: $85 billion.

Changes: The state has reduced benefits for new employees, but efforts to do so for existing employees and retirees have stalled. The changes for new employees include raising the retirement age to 67 and ending 3 percent cost of living raises, compounded annually, for their pensions. Instead, new employees qualify only for raises of 3 percent or half the inflation rate, whichever is lower.

KANSAS

Unfunded liability: $9.2 billion.

Changes: Over the past two years, the state has committed to additional funding for the pension system. It wants to give existing employees the choice of increasing the percentage of their salaries going into pensions. It's also starting a new plan for workers hired after 2014 that moves toward a 401(k)-style plan, in which workers contribute a lump sum and are guaranteed at least 5.25 percent in interest earnings annually.

KENTUCKY

Unfunded liability: $30 billion.

Changes: Lawmakers suspended pension increases this year, raised the retirement age for new hires in 2008 and raised the employee contribution in 2008 from 5 percent to 6 percent of their wages.

LOUISIANA

Unfunded liability: $18 billion.

Changes: In recent years, lawmakers have made changes to increase the retirement age and retirement benefits for new workers, but Gov. Bobby Jindal's attempt to change benefits for existing workers failed to win legislative support.

Court challenges: A plan to switch new state employees to a cash balance plan with many of the features of a 401(k)-style account is tied up in litigation.

NEW HAMPSHIRE

Unfunded liability: $4.26 billion.

Changes: The state cut benefits in 2009 and 2011, has raised some retirement ages and increased contributions from employees. Some lawmakers plan to push legislation to create 401(k)-style retirement plans next year.

Court challenges: Lawsuits challenging the increased member contributions and benefit changes are pending.

NEW JERSEY

Unfunded liability: $41.7 billion.

Changes: In 2011, a law increased pension contribution requirements for public employees and suspended pension increases.

Court challenge: A judge sued, saying the increased pension and health care contributions amounted to an unconstitutional salary reduction for judges. A court agreed, and now there's a call to amend the state constitution to allow the changes.

NEW YORK

Unfunded liability: $9 billion.

Changes: In March, state leaders, facing union opposition, reached a budget agreement to reduce pension benefits for future public workers, requiring higher contributions and lowering the retirement age from 63 to 62. The changes are projected to save local governments $80 billion over 30 years. It omitted Gov. Andrew Cuomo's proposal for a defined contribution alternative for all future employees.

New York has one of the healthier state pension systems in the country, thanks in part to a law requiring the state to make annual contributions to the pension system.

OKLAHOMA

Unfunded liability: $10.6 billion.

Changes: In 2011, lawmakers eliminated the common practice of approving an automatic 2 percent pension increase and required that all future increases be funded by the Legislature. Other changes included increasing the retirement age for some future employees.

RHODE ISLAND

Unfunded liability: $4 billion; was $7 billion before recent changes.

Changes: Last year, lawmakers suspended pension increases, raised retirement ages for many workers and created a new type of retirement plan that combines traditional pensions with 401(k)-style accounts.

Court challenge: Public-sector unions are suing to block the changes, which they say are illegal and unfair.

October 7, 2012

$1.4T in States' Pension Fights Foreshadowed in RI

By THE ASSOCIATED PRESS

PROVIDENCE, R.I. (AP) — Retired social worker Jim Gillis was told his $36,000 Rhode Island state pension would increase by $1,100 next year to keep up with inflation. But lawmakers suspended annual increases, leaving Gillis wondering how he'll pay medical bills and whether he'd been betrayed by his former employer.

"When you're working, you're told you'll get certain things, and you retire believing that to be the case," Gillis said. He and other retirees are challenging the pension changes in a court battle that's likely to have national implications as other states follow Rhode Island's lead.

Cities and states around the country are shoring up battered retirement plans by reducing promised benefits to public workers and retirees. All told, states need $1.4 trillion to fulfill their pension obligations. It's a yawning chasm that threatens to wreck government budgets and prompt tax hikes or deep cuts to education and other programs.

The political and legal fights challenge the clout of public-sector unions and test the venerable idea that while state jobs pay less than private-sector employment, they come with the guarantee of early retirement and generous benefits.

The actions taken by states vary. California limited its annual pension payouts, while Kentucky raised retirement ages and suspended pension increases. Illinois reduced benefits for new employees and cut back on automatic pension increases. New Jersey last year increased employee retirement contributions and suspended pension increases.

Nowhere have the changes been as sweeping as in Rhode Island, where public sector unions are suing to block an overhaul passed last year. The law raised retirement ages, suspended pension increases for years and created a new benefit plan that combines traditional pensions with something like a 401(k) account.

"This saved $4 billion for the people of Rhode Island over 20 years," said state Treasurer Gina Raimondo, a Democrat who crafted the overhaul. "Rhode Island is leading the way. I expect others to follow, frankly because they have to."

Public employee unions say Rhode Island is reneging on promises to workers.

"What they did was illegal," said Bob Walsh, executive director of the National Education Association Rhode Island. "We're deep into a real assault on labor. It worries me that people who purport themselves as Democrats do this."

The court case foreshadows likely battles elsewhere as states grapple with their own pension problems. In the past two years, 10 states suspended or cut retiree pension increases; 13 states now offer hybrid retirement plants that combine pensions with 401(k)-like plans.

"Forty-three states from 2009 to 2011 did something, but in many cases something was not enough," said David Draine, a researcher who tracks pension changes at the Pew Center on the States.

States are discovering the political challenge of reining in pensions is only one step in a battle ultimately won or lost in the courts.

A plan to enroll new Louisiana state workers in a 401(k)-like retirement plan is being challenged by retirees. New Hampshire is defending a law that cuts pension benefits and increases employee contributions.

California Gov. Jerry Brown last month approved higher retirement ages and contribution rates for some state workers and a $132,000 cap on annual pension payouts. The state's two main pension funds — the California Public Employees' Retirement System and the California State Teachers' Retirement System — are underfunded by $165 billion.

Brown said the changes may lead to bigger pension reforms in the future. Unions are ready for a fight.

"Any additional pension reform they try to do will be met with serious opposition," said Dave Low, of Californians for Retirement Security, which represents 1.5 million public workers. "Public employees have become the whipping boy."

Unions note that states have long neglected to contribute enough to pay for promised benefits. In 2010, 17 states set aside no new money for pension benefits. Kentucky hasn't made its share of pension contributions since 2004. In the past decade, Kansas and New Jersey haven't paid their full shares a single year, and Illinois has done so only once.

Steep pension fund investment losses made the situation far worse — a federal report says state and local pension plans lost $672 billion during fiscal years 2008 and 2009.

Longer-lived retirees, higher health care bills and pension increases also drive costs. In Rhode Island, 58 percent of retired teachers and 48 percent of state retirees receive more in their pensions than in their final years of work.

Before Rhode Island's reforms passed in November, its pension costs were set to jump from $319 million in 2011 to $765 million in 2015 and $1.3 billion in 2028. The state's annual budget is $7 billion.

Passing the changes wasn't easy. Public employees rallied at the Statehouse and jeered lawmakers during floor debate. Firefighters lined the walls of committee hearings. Rep. Donna Walsh called the vote the "most heart-wrenching, gut-wrenching vote" she'd cast in 12 years as a lawmaker.

One of the biggest changes involved putting off pension increases for five years, and then only if pension investments perform well.

North Providence retiree Jamie Reilly left her job as a secretary at age 50, thinking her 30 years of state employment would mean good benefits during her later years. But now she said she may be forced to re-enter the workforce at age 55 because the state has put off pension increases.

"I counted on that money," Reilly said of the increases, which she estimates would have started at $700 to $1,000 a year. "I retired knowing I was going to get a certain amount of money. You work all your life and you plan, and they take it away from you."

Cranston firefighter Dean Brockway said higher retirement ages mean he will have to work several years longer than he expected, and he wonders how he'll climb stairs in heavy gear in his 60s. Brockway, who has nearly 30 years on the job, said reducing benefits could make it harder to recruit public safety employees.

"Could I do something else? I don't know," he said. "A lot of us chose to dedicate our lives to public service because to us it's an honor. Could I be a carpenter? I don't think so. This is what I do."

State leaders, however, said they had no choice but to reduce benefits taxpayers cannot afford. Otherwise cities might have gone bankrupt and current workers would have no retirement security, Raimondo said.

"These problems won't go away," she said. "The longer you wait, the bigger the problems get. People looking for easy, short-term solutions. ... Well, there are none."

Judge strikes down city pension change

Police, fire unions had challenged 2010 overhaul

By Julie Scharper and Luke Broadwater, The Baltimore Sun, September 20, 2012

A key provision of Baltimore Mayor Stephanie Rawlings-Blake's overhaul of the fire and police pension system was struck down Thursday by a federal judge in a ruling that could force the city to pay tens of millions of dollars more to retirees each year.

U.S. District Judge Marvin J. Garbis held that the city's decision to change the method for determining annual increases for retirees — resulting in less money for many — was "unconstitutional" and not "reasonable and necessary to serve an important public purpose."

The provision was one part of a 2010 law that also delayed retirement for many police and fire employees and increased their contributions to the pension system. An attorney for the unions said the judge's ruling effectively struck down all of the changes the city had made to the retirement plans.

"It was an all-or-nothing proposition," said attorney Charles O. Monk. "The entire statute has been declared unconstitutional."

City Solicitor George Nilson said he had not scrutinized the ruling and therefore declined to discuss its implications, but he said it was "almost certain" the city would appeal to a higher court.

Fire and police union leaders called the ruling a major victory.

"Today is a big day for our police officers and our firefighters," said Fraternal Order of Police President Robert F. Cherry.

If the ruling stands, the total cost to the city is unclear. When Rawlings-Blake introduced the pension overhaul in 2010, she said it would head off imminent fiscal crisis, saving the city at least $64 million a year.

Rawlings-Blake spokesman Ryan O'Doherty said the administration was "carefully reviewing" the ruling to determine its fiscal impact and what its next legislative steps, if any, will be.

"The mayor came into office under very difficult circumstances and put forth a package that is fair and responsible, keeps the city solvent and protects the long-term sustainability of police and firefighter retirements," O'Doherty said. "If the system is broken, it won't be there when you need it."

Monk, the union attorney, said Garbis had arranged a meeting for both sides next month to discuss the next steps. The judge planned to issue orders explaining how to the proceed after that meeting, Monk said.

"If the decision became effective, it would be as if the statute had not been adopted," said Monk. "We would be back to 2010 and people would be entitled to retire after 20 years."

James Ulwick, an outside attorney hired to represent the city in the case, declined to comment, citing the pending litigation.

Rawlings-Blake unveiled the pension overhaul shortly after taking office in 2010 and frequently cites it as an example of a tough decision she was forced to make to keep the struggling city solvent. Her predecessors in the mayor's office, Rawlings-Blake has said, had "kicked the can" on the pension problem.

The fire and police union launched a public attack on the mayor and her council supporters, picketing City Hall and posting billboards accusing elected leaders of turning their backs on public safety workers. A bitter fight ensued as both the administration and the unions lobbied council members, but the council eventually agreed to the mayor's plan.

Under the plan, firefighters and police officers have been required to increase their contributions to the pension fund. Those who had worked for the city for fewer than 15 years were told they would no longer be able to retire after 20 years, but would have to work for five additional years.

Retired workers also lost what was called the "variable benefit," an annual increase tied to the stock market. Instead, the youngest retirees received no annual increase, and older retirees received a 1 percent or 2 percent annual increase.

Monk said that the variable benefit was the "heart and soul" of the new pension law and that its elimination invalidated the other pension changes.

Cherry said the unions offered over $80 million in savings and concessions to the city before the law was passed, but the Rawlings-Blake administration wasn't satisfied with their offer. "We were the ones who first approached the city to make these changes. We said we will take lesser payments for our retirees."

In his ruling, Garbis said that the law's cost-of-living adjustments were unconstitutional in that they harmed younger retirees too severely.

The plan "had the pernicious effect of eliminating and/or reducing annual increases from retirees under 65 at the time of enactment and, consequently, significantly reducing their pensions when they became 65," he wrote.

The law was "not reasonable," Garbis wrote.

"There was an important public purpose to be served by the restructuring of the Plan so as to restore it to actuarial soundness and sustainability," the judge wrote.

"However, the City did not have total freedom to disregard its contractual obligations altogether."

TRS REVISES ASSUMED RATE OF INVESTMENT RETURN

September 21, 2012

SPRINGFIELD, IL – The Teachers' Retirement System Board of Trustees today approved revisions to a number of assumptions contained in its actuarial model, including a reduction in the System's long-term assumed

rate of return on its $36 billion investment portfolio from 8.5 percent to 8 percent.
The major effect of the new assumed rate of return will be to increase the System's long-term unfunded liability ratio from the current 54.8 percent to 57.6 percent. The lower rate of return also will increase the state's required annual contribution to TRS in fiscal year 2014 and after. This contribution covers the annual cost of pensions as they are earned as well as the unfunded liability that has accumulated over time. The state contribution in FY 2014 is expected to rise from $3.07 billion with an 8.5 percent rate of return to $3.37 billion with an 8 percent rate of return.

The Board's vote was 11-2 to reduce the rate of return to 8 percent. The trustees also voted to undertake the next study of the System's actuarial assumptions, including the assumed rate of return, in three years instead of the five years called for in state law because of the volatility of the world economy.

"The assumed rate of return greatly influences the financial future of TRS. Reducing the rate from 8.5 percent to 8 percent is a prudent move that balances reality with the needs of TRS members," said Executive Director Dick Ingram. "The Board's decision takes into consideration many things: the volatility of the world economy, the fiduciary duty we have to keep the System strong, the financial problems faced by Illinois and state government's long-term responsibility to teacher pensions."

Ingram noted that the impact of the System's assumed rate of return on state contributions and the TRS liability is muted because of the financial calculations required by Illinois law to determine the annual state contribution and the System's liability. The methods required by state law differ substantially from standard actuarial practices and in the past have artificially lowered the state contribution required by law.
In August, the System's actuaries, Buck Consultants of Chicago, recommended reducing the assumed rate of return from 8.5 percent and outlined three options for a revised number – 7.75 percent, 8 percent and 8.25 percent. The Trustees delayed a final decision until September in order to allow further analysis by TRS staff and to ensure that all TRS trustees had a say in the final decision. On September 14 Gov. Pat Quinn named two new trustees to the Board, bringing the number of members to 13 for the first time in more than a year.
The new revised rate of return is the product of an extensive review by Buck Consultants that also included recommended revisions to various actuarial data that is used by TRS to determine the cost of benefits, including mortality, member salaries, membership totals, retirement age and length of retirement.

"Our process is very deliberate and considerable analysis is used to develop this estimate," Ingram added.
"It is the fiduciary duty of the Board to set a rate that is realistic and will fairly distribute the cost of TRS benefits among several generations of taxpayers."

The former 8.5 percent rate of return, first adopted by the TRS Board in 1997, has proven to be appropriate over time. The actual TRS investment rate of return between 1981 and 2011 was 9.3 percent.
The National Association of State Retirement Administrators reported earlier this year that of 126 major state and municipal pension systems across the country, including TRS, 47 had set an assumed rate of investment return at 8 percent. The NASRA study also found that over the last 25 years, the 126 pension systems recorded a median actual investment return of 8.3 percent.

Assumed Rate of Return 8.50% 8.00%
FY 2011 Total Liability $83.5 billion $89.1 billion
FY 2011 Unfunded Liability 54.8 % 57.6%
FY 2014 State Contribution $3.07 billion $3.37 billion
FY 2014 – 2045 Accumulated State Contributions $173.2 billion $204.1 billion

Pension Holidays are No Vacation

by Ady Dewey

There was a new tenor in the media this week in talking about public pensions: discourse to remove the focus off of public employees and the demands of unions and on to legislators for their lack of responsibility in making needed annual payments to pensions.

In an editorial appearing in the *Sacramento Bee* last Saturday, David Crane, an outspoken critic of public pensions in his role as the jobs and economic growth adviser for former Governor Arnold Schwarzenegger, writes:

Promises to pay pensions and post-employment health care costs are simply promises to pay deferred compensation. As with all deferred compensation promises, the party making the promise should set aside money when the promise is made so as to insulate future budgets from past costs. Failing to do so means future budgets would have to come up with enough money to meet both their own costs as well as past costs.

That's what has happened to cities such as Stockton. Because past Stockton governments failed to set aside enough money to meet pension and health care promises to now-retired employees, the current Stockton government has been forced to cut current services to pay off those promises. The damage happens well before bankruptcy, because by the time cities declare bankruptcy they have already cut many services – such as libraries, mass transit, parks and recreation centers – to the bone. But when they start cutting into the bone – e.g., to public safety services – cities cry "uncle" and declare bankruptcy.

Mark Funkhouser for his *Governing* column, "The Subtle Slide into Municipal Bankruptcy," interviewed Crane who elaborated further:

In Crane's view, citizens bear little responsibility for the financial crisis in their cities and states. They're not paying attention to government finances; they're working to pay the bills and take care of their families, and they trust their elected representatives to manage those fiscal affairs. As for public employees, they're no different from anyone else. Of course they want to be well compensated, and they're going to take whatever they can convince the politicians to give them, but they can't control whether politicians set aside enough money to pay for the promises they make.

According to the Public Fund Survey, fiscal year 2011 data so far indicate a declining rate in the number of state and local governments doing just that.

There's a decline in the average annual required contribution, or ARC, received. It seems safe to assume that this trend is due primarily, if not entirely, to the decline in revenues states and cities and school districts have experienced, combined with ever-growing demands on spending, such as for Medicaid, K-12 and higher education, and pensions. Contributions from employees, on the other hand, are increasing in many states; moreover, employees always pay their full required contribution. Unfortunately, some employers do not, which makes the media's newfound tenor and focus spot-on.

Judge calls state pension law unconstitutional

LANSING -- A 2011 law requiring members of a state employee pension fund to contribute 4% of their pay toward the fund is unconstitutional, an Ingham County judge ruled in an opinion released Friday.

The administration "strongly disagrees" with the ruling by Judge Joyce Draganchuk and is assessing its options, said Kurt Weiss, a spokesman for the Department of Technology, Management and Budget.

The ruling is a victory for the Michigan Coalition of State Employee Unions in its fight over benefits with Gov. Rick Snyder and the Legislature.

Draganchuk said Public Act 264 infringed on the constitutional authority of the Michigan Civil Service Commission to set compensation for state employees.

"By mandating that members contribute 4% of their compensation to the employees' savings fund, the Legislature reduced the compensation of classified civil servants -- an act that is within the sphere of authority vested in the Civil Service Commission," Draganchuk said in a 12-page opinion.

Weiss said the law is expected to save the state $5.6 billion in long-term liabilities and ensure "the post-retirement promises made to our employees can be kept."

He said, "The state will be reviewing the ruling more closely to determine next steps."

A 2010 law that required state employees to pay 3% toward retiree health care was earlier declared unconstitutional for the same reason. That Ingham County court ruling was upheld on appeal.

State officials say this case is different because employees have the option of switching to a 401(k)-style retirement plan if they don't want to pay the 4%. But Draganchuk disagreed.

"PA 264 requires every member who elects to remain in a defined benefit plan to pay 4%," she said.

Ray Holman, legislative liaison for UAW Local 6000, the largest state employee union, said: "It feels great to be vindicated by the court."

"Big Seven" Focus on Pension Funding Policy

October 01, 2012

WASHINGTON—The executive directors of the Big Seven state and local associations today released draft "Pension Funding Policy Guidelines" for state and local governments.

The Governmental Accounting Standards Board (GASB) recently issued new standards that focus entirely on how state and local governments should account for pension benefit costs. However, they did not address how employers should calculate the annual required contribution (ARC). To assist state and local government employers, the seven associations are engaged in an ongoing effort to develop policy guidelines.

State and local governments should have a policy that addresses the following general policy objectives:

- Ensure pension funding plans are based on actuarially determined contributions;
- Build funding discipline into the policy to ensure promised benefits can be paid;
- Maintain intergenerational equity so the cost of employee benefits is paid by the generation of taxpayers who receives services;
- Make employer costs a consistent percentage of payroll; and
- Require clear reporting to show how and when pension plans will be adequately funded.

"The last decade has been a sobering time for government leaders and pension plan sponsors. Actuarial practice is continuously evolving," said **Dan Crippen, NGA executive director**. "Planning for the long-term is essential. These draft guidelines can provide a framework for policymakers to update their pension funding policies."

"Government leaders have to make difficult budget decisions every year, said **Robert J O'Neill, ICMA executive director**. "Having a rational way to calculate their annual required contribution helps them stay on track to meet their retirement obligations."

Members of the Big 7 organizations include the National Governors Association, the National Conference of State Legislatures, The Council of State Governments, the National Association of Counties, the National League of Cities, the U.S. Conference of Mayors and the International City/County Management Association.

Oregon PERS hikes: Schools, governments, taxpayers will feel the pain of 45 percent rate increase

By The Oregonian , September 28, 2012 BY TED SICKINGER AND NICK BUDNICK

The OregonianSalem-Keizer School Board member Jim Green said the rate hike boosts his district's payroll costs from 11.75 percent to 18.68 percent. "That's an $11 million increase to us in the first year," said Green, who also serves as the Oregon School Boards Association's deputy executive director. "Over the last four years we've already cut $125 million out of our budget, laid off over 400 staff and we have the same number of kids if not a little more as we did four years ago."

Redmond School Board Chair Cathy Miller choked up as she contemplated the employer rate hikes approved Friday by the board of the Oregon Public Employees Retirement System. Up to 28 fewer teachers for her 7,000-student school district would be cut -- on top of 115 already trimmed in the last four years.

"We are clearly at risk," she told the PERS board and briefly sobbed. "And if nothing changes -- sorry, I'm very passionate -- we'll be forced to go substandard in either instructional time or in the delivery of instructional service to our students, and neither option, neither option is acceptable."

The rates will amount to another net contribution increase of 45 percent next July. Collectively, the increases will cost agencies and taxpayers across the state an extra $900 million during the 2013-'15 biennium as PERS looks to dig out of its $16 billion actuarial hole. The extra contributions are expected to result in reduced services and layoffs as cash-strapped agencies cut other services to absorb the required pension payments.

One by one, public officials recited a litany of impacts of the rates set to kick in next July: lost jobs, shrinking library hours, closed schools, and fewer school days and cops on the street. They urged the PERS board to actively support a committee to tackle the issue and make significant reforms -- a call echoed by outgoing PERS board chair James Dalton.

Dalton, speaking as a private individual, issued a laundry list of reforms, such as employers taking steps to prevent the padding of pension payments with overtime shortly before retirement.

He also criticized some benefits as too generous, especially for participants in the PERS money match system. "If you get inflation plus a COLA (cost of living adjustment) you're getting paid twice for the same benefit," he said. "That doesn't make sense to me." He said that while many in the audience may not agree with his specific suggestions, "I also suspect in your hearts many of you know this system is not sustainable."

The escalating cost of the pension system has become a budget buster for many of the 900 government agencies, school districts and municipal entities whose employees are members. Net employer contributions to the system doubled in July 2011, pinching public budgets that were already under heavy pressure from the recession.

The Oregon Legislature largely ignored the funding issues in 2011. Dozens of reform bills were introduced to lower costs and long term liabilities, and almost all died in the House Business and Labor Committee without a hearing. Meanwhile, slow economic growth and poor financial markets have dashed hopes PERS would be bailed out by strong investment returns.

The rate increase comes as no surprise. Milliman, the system's actuarial firm, has been forecasting large, successive rate increases since the 2008 market downturn lopped 27 percent off PER's investment portfolio. It provided advisory reports last year to help employers forecast their 2013 rates. And last month it confirmed earlier estimates that systemwide, employer contribution rates will increase by 5 percentage points, from about 16.3 percent of payroll to about 21.4 percent of payroll.

School districts will be paying more -- on average about 26.7 percent of their payroll starting in 2013.

Individual employer contribution rates vary widely based on the size of their individual liability, the size of their payroll and the balance of side accounts that some 140 employers established with the proceeds of pension obligation bonds they issued to prepay their pension contributions.

Government employers have collectively borrowed more than $6.5 billion, betting that they could earn more money by investing the proceeds with PERS than they paid in interest rate on the bonds. The timing worked for some employers, and not for others. But in general, the coming rate increases are larger for employers with side accounts, as the returns on accounts suffered along with the pension funds, so the corresponding offset to rates will shrink.

The rates announced Friday range between 37.4 percent of payroll for tiny, single employee agencies such as Tangent Rural Fire Protection District and 15.4 percent for the state of Oregon, which has 48,000 active PERS members. Portland Public Schools, which had borrowed money to reduce its contribution rates, will see increased costs of more than $14 million, said David Wynde, deputy chief financial officers. That's roughly equivalent to nine days cut from the school year.

The rate increases are likely to kindle efforts in the legislature to reduce costs, either through reforms to the system or changes in the actuarial assumptions to provide some payment relief.

Pat West, a retired firefighter representing public employees on the board, said the real culprit behind the rates going up is the 2008 market crash that led the system to rely more on employer contributions, rather than stock market profits. He said there is no easy answer that wouldn't jeopardize the system.

"I understand the push to come up with something that would have instant change in the rates for employers, but I don't see that -- with the exception of putting the system in a suspect position."

The board also appointed 12 administrators, lobbyists and state employees to a Legislative advisory committee that will provide input to lawmakers in the upcoming session. The members split evenly between employees and employers.

Exclusive: Study shows $1.2 trillion gap for public pensions

Mon, Oct 15 2012, By Hilary Russ

(Reuters) - The largest 100 public pension funds have around $1.2 trillion of unfunded liabilities, about $300 billion above the nearly $900 billion they reported themselves, according to a new actuarial study to be released on Monday.

The pension systems reported a median funding level of 75.1 percent. The study by the actuarial firm Milliman, which used different ways to value assets and measure liabilities, finds an aggregate level of funding of 67.8 percent.

But Milliman, one of the world largest actuarial firms took a close look at U.S. public pension funding for the first time, and said the multibillion-dollar difference was good news.

Rebecca Sielman, the report's author, said results should reassure the public that America's public pensions in general are accurately reporting their funding shortfalls.

The difference between what public pensions across the United States have reported and what Milliman found wasn't significant, Sielman said. She noted that a relatively small change in the way the figures are calculated could lead to seemingly outsized results because the funds are so large.

"The numbers really didn't change that much," she said. "It really didn't move the needle."

Both the pension funds' reported results and Milliman's findings fell within the range of previous estimates from other studies of the total size of the public pension shortfall in the United States.

With the study, Milliman, stepped into the debate about whether public pensions are underreporting the size of their liabilities.

That hot-button issue revolves around how much money public employers - and, by extension, taxpayers - will have to contribute to cover future payouts for member benefits. It is a key issue at a time of dwindling revenues and tighter budgets for states and local governments.

Pension funds get money from the returns on their assets and from members' contributions. States and cities also pay into the funds, but their contributions are discounted based on how much money they think their investments will make over time.

The 100 funds Milliman studied used a median rate of return for their investments of 8 percent. But the recession slashed into the market, dropping actual median returns to just 3.2 percent for the last five years, according to data from Callan Associates.

The difference has prompted critics to claim that the funds are underreporting their unfunded liabilities, or the gap between what they've promised to pay retirees in the future and what they'll actually have on hand to cover the benefits.

Critics have called for public pensions to reduce their assumed rates of return to as little as 5 percent or less, which would cause unfunded liabilities to soar and likely leave taxpayers having to cover the difference.

But without the change, critics say, future generations will be left to deal with a financial bomb.

FINDINGS WITHIN RANGE OF SIMILAR STUDIES

Other studies have tried to measure the overall size of the problem. The Pew Center on the States found that the shortfall is about $766 billion. Moody's Investors Service said in July that the collective gap would be $2.2 trillion if funds used a 5.5 percent discount rate.

Milliman has studied the health of the 100 largest private pension funds for about a decade. But this is its first study of public plans, conducted specifically to determine whether the systems were using unrealistically high return-rate assumptions as the critics claimed.

"I thought that we would find fairly pervasive use of interest rates that are high relative to current market consensus about future investment returns, and we didn't find that," Sielman said.

The firm, which has done actuarial work for nearly all of the U.S. states in the past, examined each individual fund in the study, using market valuations instead of smoothed valuations to measure assets and recalibrating liabilities based on Milliman's own benchmarks of expected long-term returns.

The firm found that the median discount rate should actually be 7.65 percent, rather than the 8 percent median rate the funds used in aggregate.

A third of the plans were using lower rates than they needed to, Milliman found, according to Sielman.

A small number of plans seriously underreported their liabilities because they use rates that are too high, Milliman found.

Milliman's study did not name the specific plans that underreported their liabilities. Sielman said the firm was not releasing its results for individual plans.

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