



North Dakota Teachers' Fund for Retirement

Actuarial Valuation as of July 1, 2015

October 22, 2015

Presented By:

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Discussion Topics – Valuation and Projections



**Segal
Consulting**

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

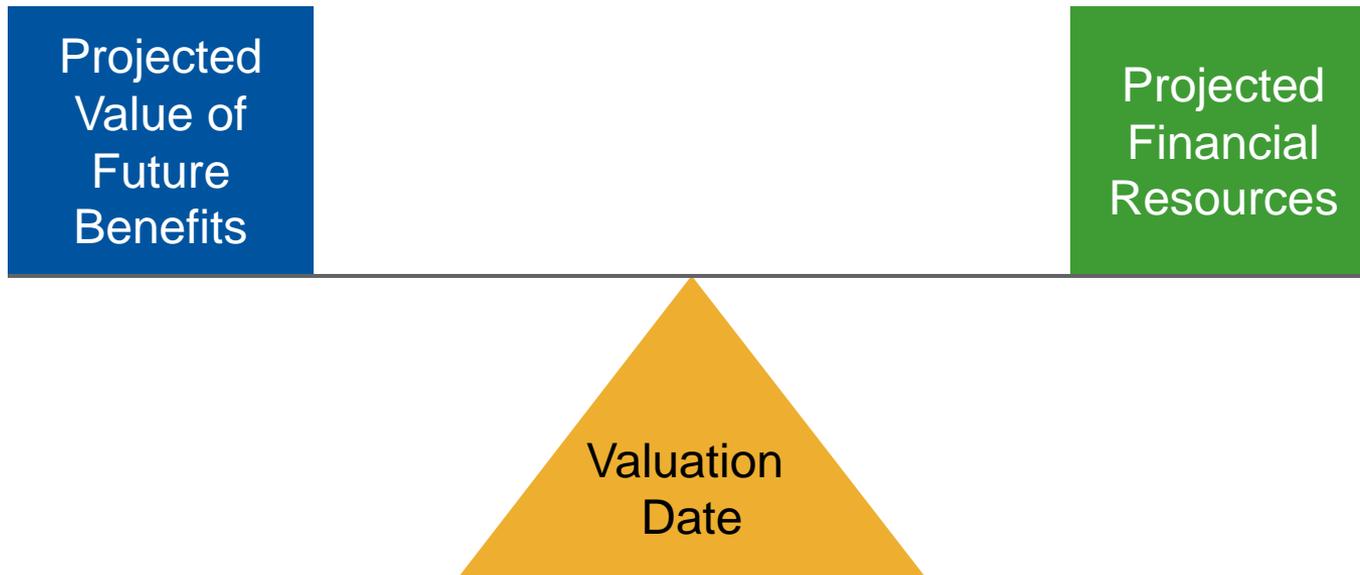
Purposes of the Actuarial Valuation

- Report the Fund's actuarial assets
- Calculate the Fund's liabilities
- Determine the Actuarially Determined Contribution (ADC) for fiscal year 2016, based upon the funding policy
 - Compare to the statutory employer contribution
- Determine the effective amortization period
- Provide information for annual financial statements
- Identify emerging trends

How is an Actuarial Valuation Performed?

- 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 the Actuarially Determined Contribution (ADC)
 - 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

Benefits = Contributions + Investment Return - Expenses

Actuarially Determined Contribution vs. Effective Amortization Period

- The Actuarially Determined Contribution (ADC) is based upon the Fund's funding policy
 - Equal to the normal cost plus amortization of the unfunded actuarial accrued liability (UAAL)
 - The funding policy components include:
 - Cost method, which is entry age normal
 - Asset valuation method, which includes a five-year smoothing period with a 20% corridor
 - Amortization period, which is a closed 28 year period as of July 1, 2015, as a level percentage of payroll
- The effective amortization period is the number of years that the UAAL is expected to be amortized based upon the fixed member and employer contribution rates
 - The effective amortization period is compared to the remaining amortization period to assess the progress toward amortizing the UAAL
- The employer contribution rate is compared to the ADC
 - Measure of the adequacy of the employer (and member) contribution rates

Segal recently reviewed the TFFR funding policy and finds it to continue to be appropriate.

Actuarial Assumptions

Two types:

Demographic

- Retirement
- Disability
- Death in active service
- Withdrawal
- Death after retirement

Economic

- 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

- 7.75%, net of investment expenses

➤ Salary increase rates

- Based on service
- Ranges from 14.50% for new members to 4.25% for members with 25 or more years of service

➤ Payroll growth

- 3.25%

➤ Administrative Expenses

- Explicit administrative expense assumption, equal to prior year administrative expenses plus inflation

Many assumptions were changed as a result of the five year experience study.

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
- 20% market value corridor is applied (e.g., actuarial value must fall within 80% to 120% of market value)

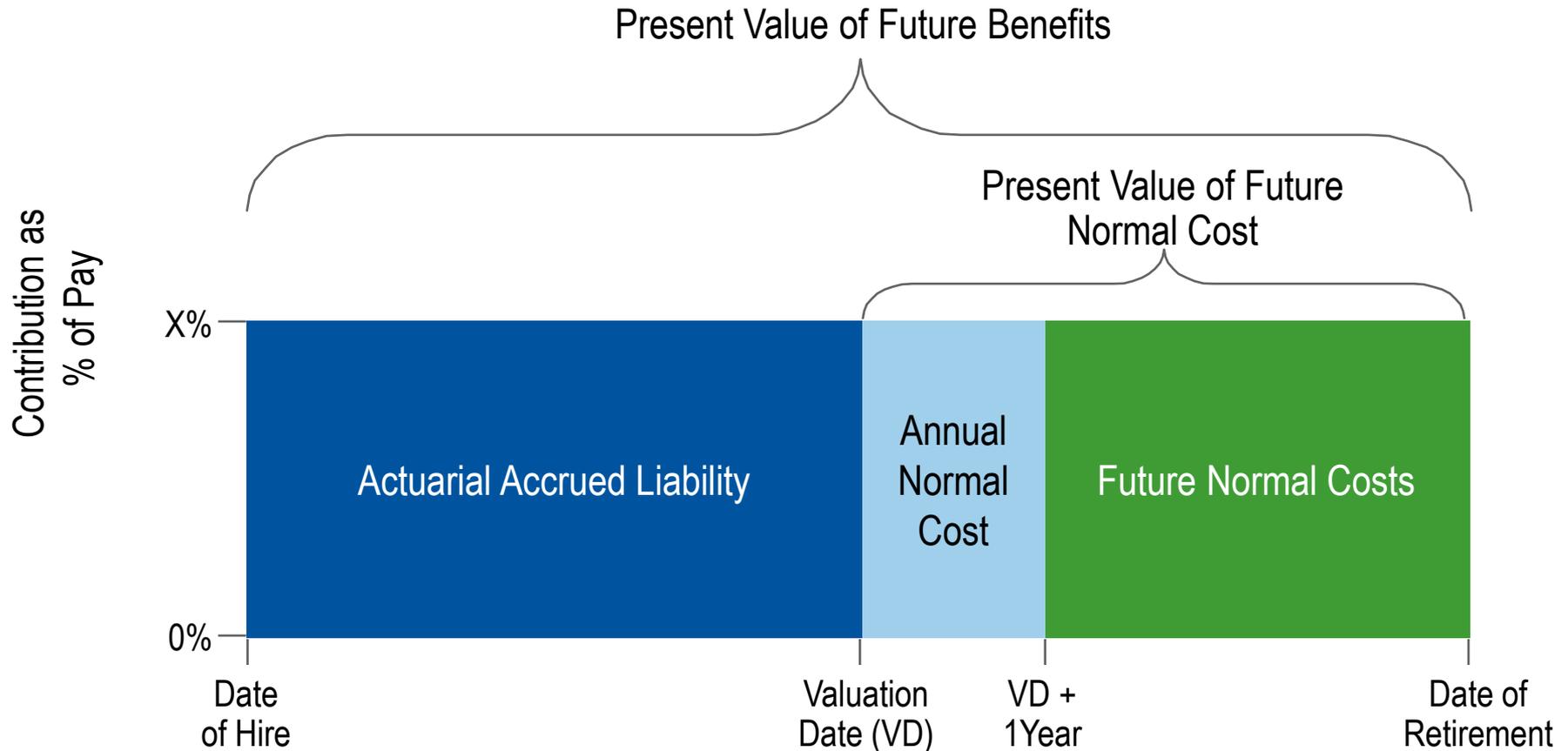
➤ Cost method

- Allocation of liability between past service and future service
 - TFFR uses the entry age normal cost method
 - » Spreads cost of member's retirement benefit over expected career as a level % of salary
 - » Most public sector retirement systems use the entry age normal cost method

➤ Amortization method

- 30-year “closed” period to pay off unfunded actuarial accrued liability, effective with the July 1, 2013, actuarial valuation
 - 28 years remaining as of July 1, 2015
- Based on level percentage of payroll

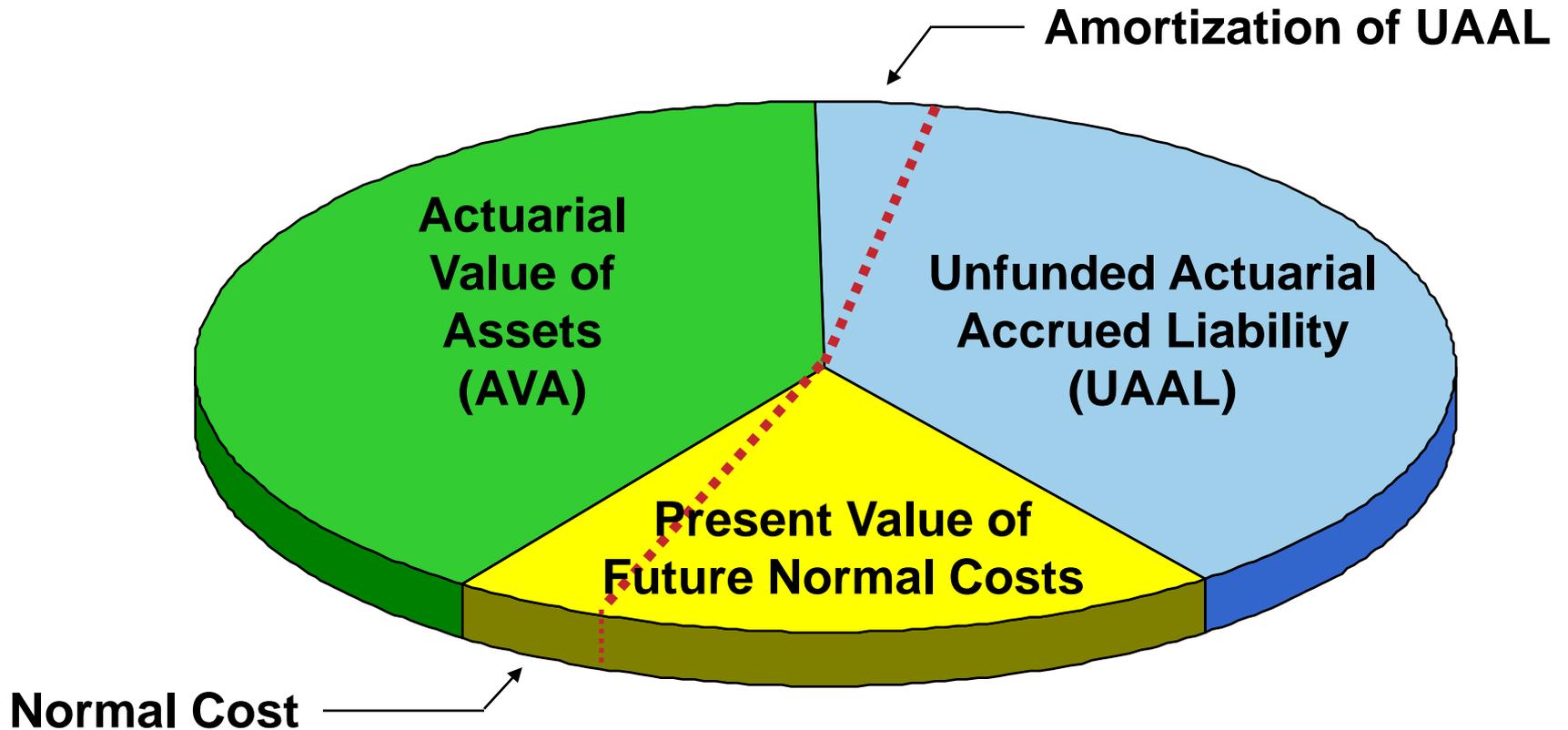
Funding Process



$$\text{Actuarial Accrued Liability} - \text{Assets} = \text{Unfunded Actuarial Accrued Liability}$$

Actuarially Determined Contribution

Present Value of Future Benefits



Summary of Valuation Highlights

- Valuation reflects assumption changes adopted as a result of the five year experience study completed earlier this year:
 - Investment return assumption lowered from 8.00% to 7.75%
 - Inflation assumption lowered from 3.00% to 2.75%
 - Individual salary increases lowered by 0.25% due to lower inflation assumption
 - An explicit administrative expense assumption added to the normal cost, equal to prior year administrative expenses plus inflation
 - Rates of turnover and retirement were changed to better reflect anticipated future experience
 - Mortality assumption updated to the “RP-2014” mortality tables with generational improvement

- The assumption changes impacted the 7/1/2015 valuation results as follows:
 - Accrued liability increased by \$171 million
 - Funded ratio decreased by 3.2%
 - Effective amortization period increased by 8 years

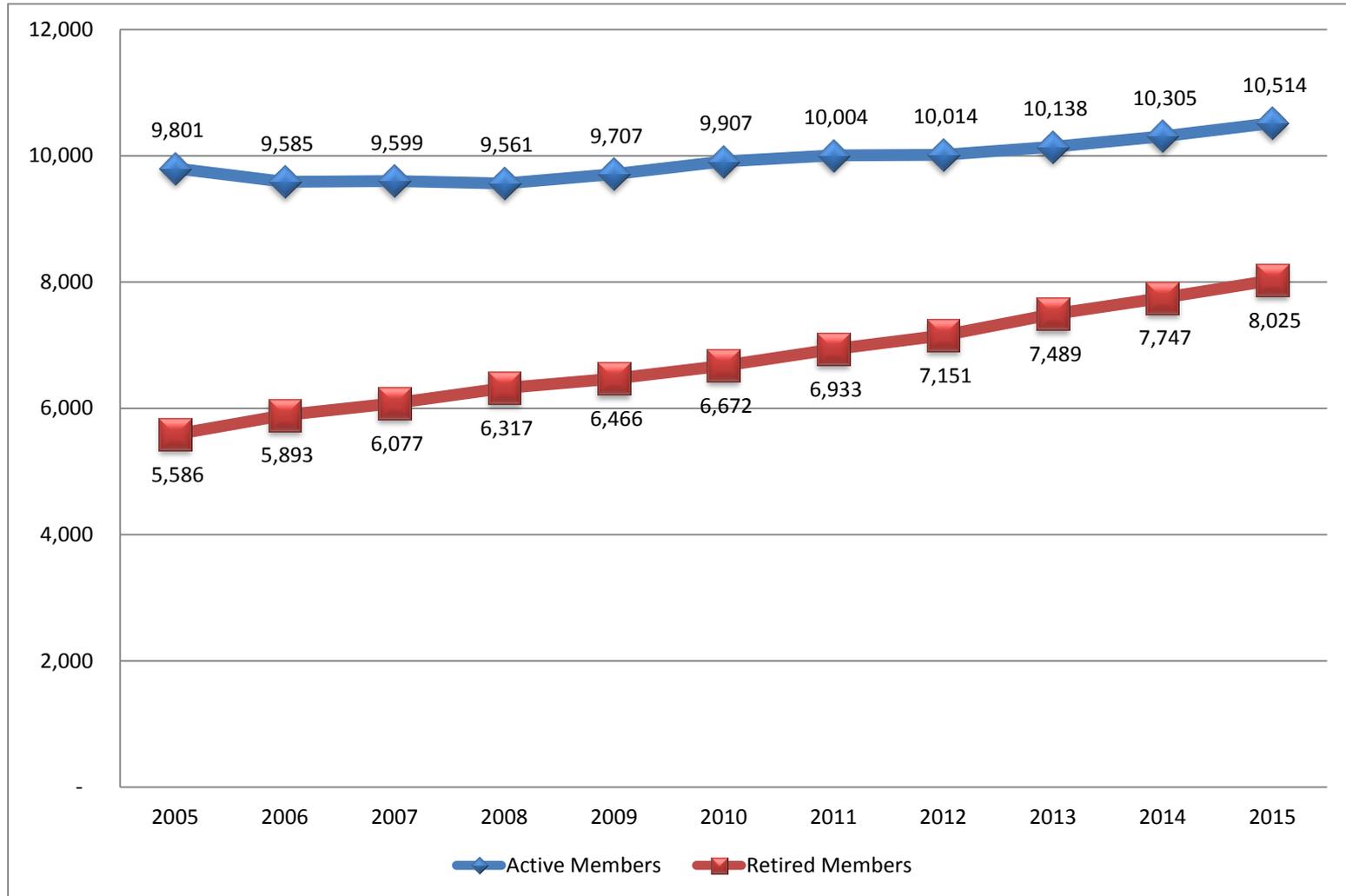
Summary of Valuation Highlights (continued)

- Market value of assets returned 3.5% for year ending 6/30/15 (Segal calculation)
 - Gradual recognition of deferred gains resulted in 10.7% return on actuarial value of assets
- Net impact on funded ratio was a decrease from 61.8% (as of 7/1/2014) to 61.6% (as of 7/1/2015)
- Effective amortization period increased from 24 years (as of 7/1/2014) to 29 years (as of 7/1/2015)
- Net impact on actuarially determined contribution (ADC) was an increase from 11.57 % of payroll (FY15) to 13.04% of payroll (FY16)
 - Based on the employer contribution rate of 12.75% for FY16, the contribution deficiency is 0.29% of payroll
- Net Pension Liability increased from \$1.05 billion as of 6/30/2014, to \$1.31 billion as of 6/30/2015

Membership

	2015	2014	Change
Active			
• Number	10,514	10,305	+2.0%
• Payroll (annualized)	\$589.8 mil	\$557.2 mil	+5.8%
• Average Age	42.5 years	42.9 years	-0.4 years
• Average Service	12.4 years	12.8 years	-0.4 years
Retirees and Beneficiaries			
• Number	8,025	7,747	+3.6%
• Total Annual Benefits	\$177.4 mil	\$165.8 mil	+7.0%
• Average Monthly Benefit	\$1,842	\$1,783	+3.3%

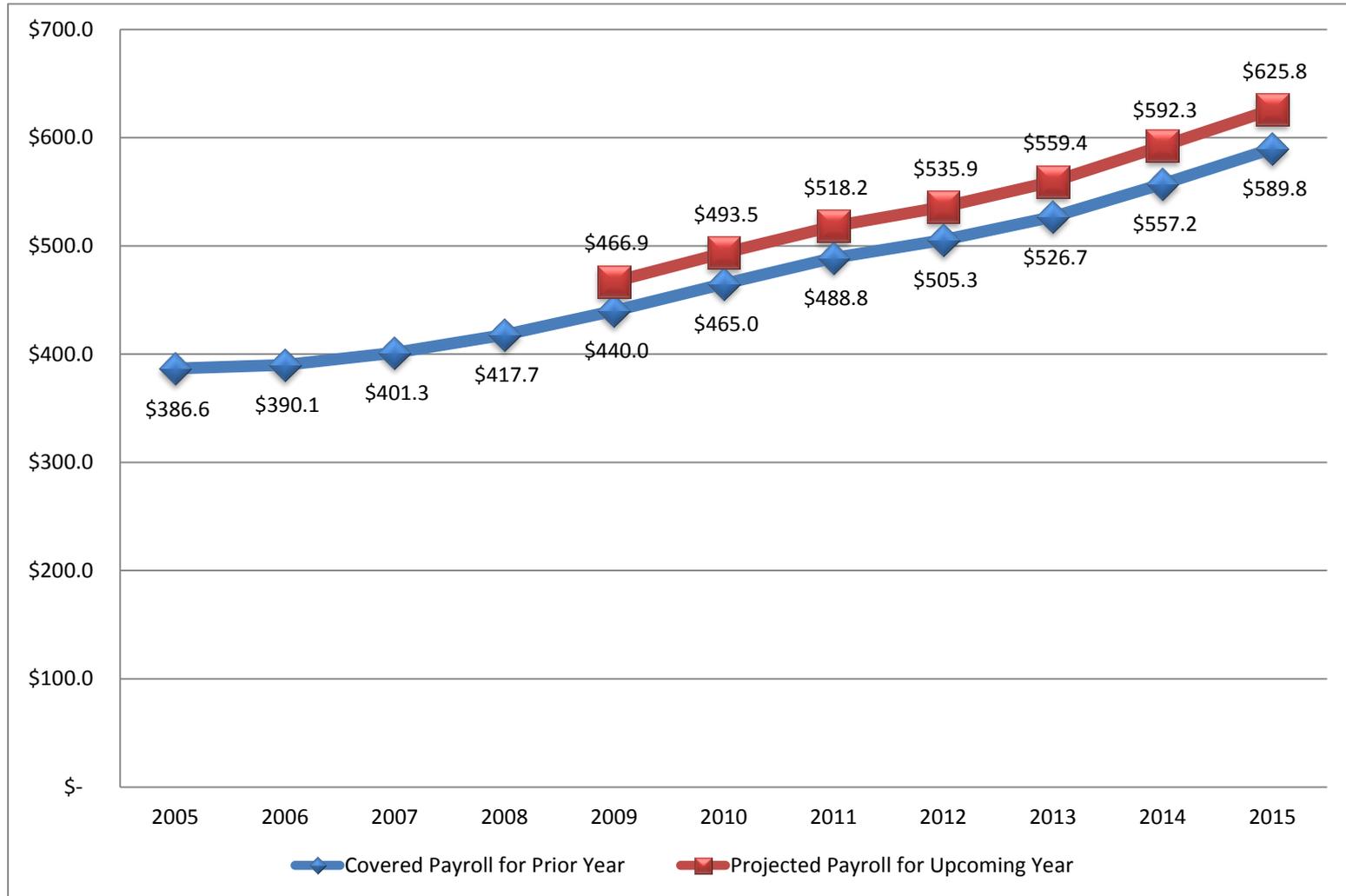
Active and Retired Membership



Since 2005, number of retirees and beneficiaries has increased 3.7% per year on average.

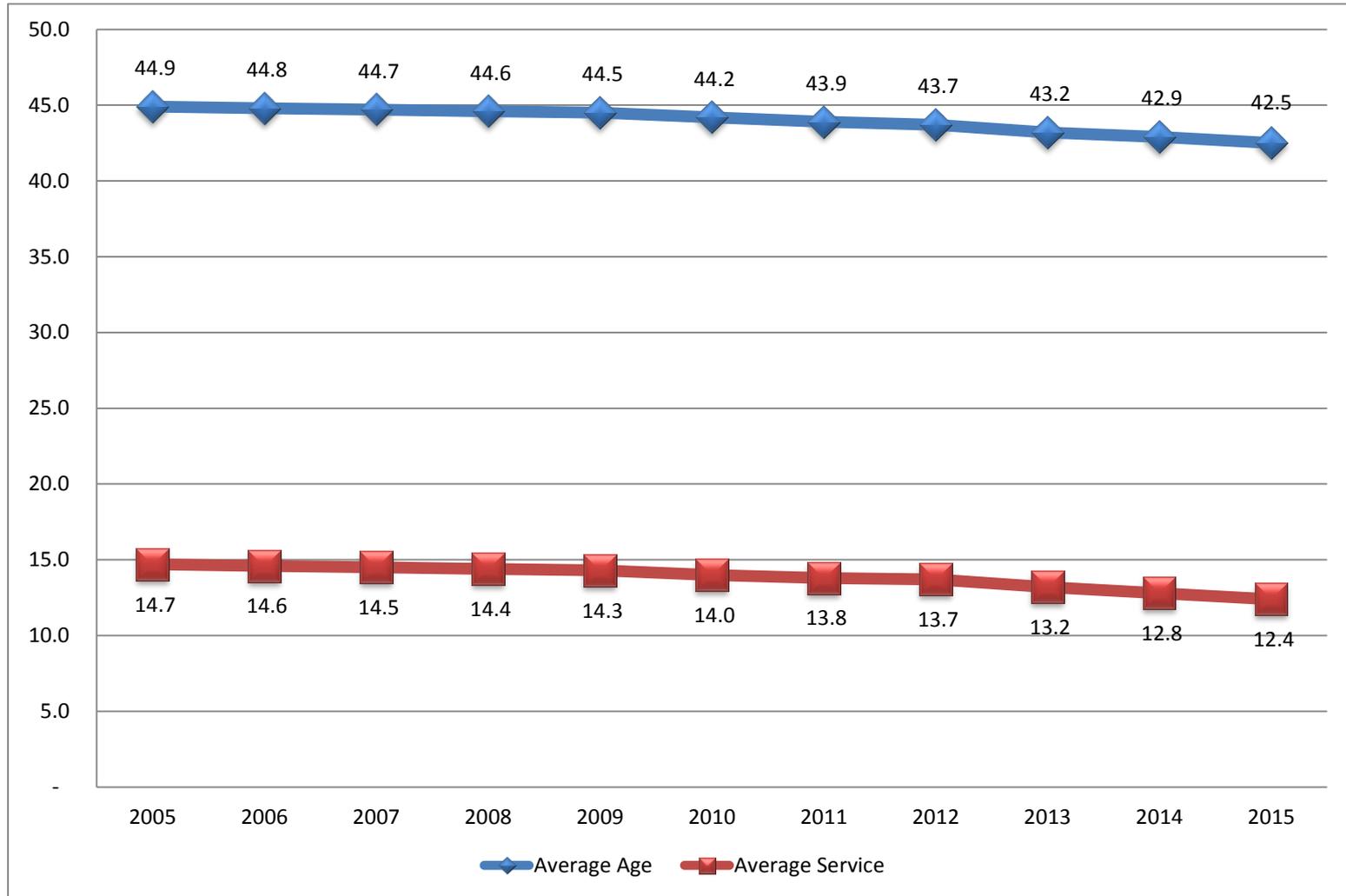
Active Payroll

\$ Millions

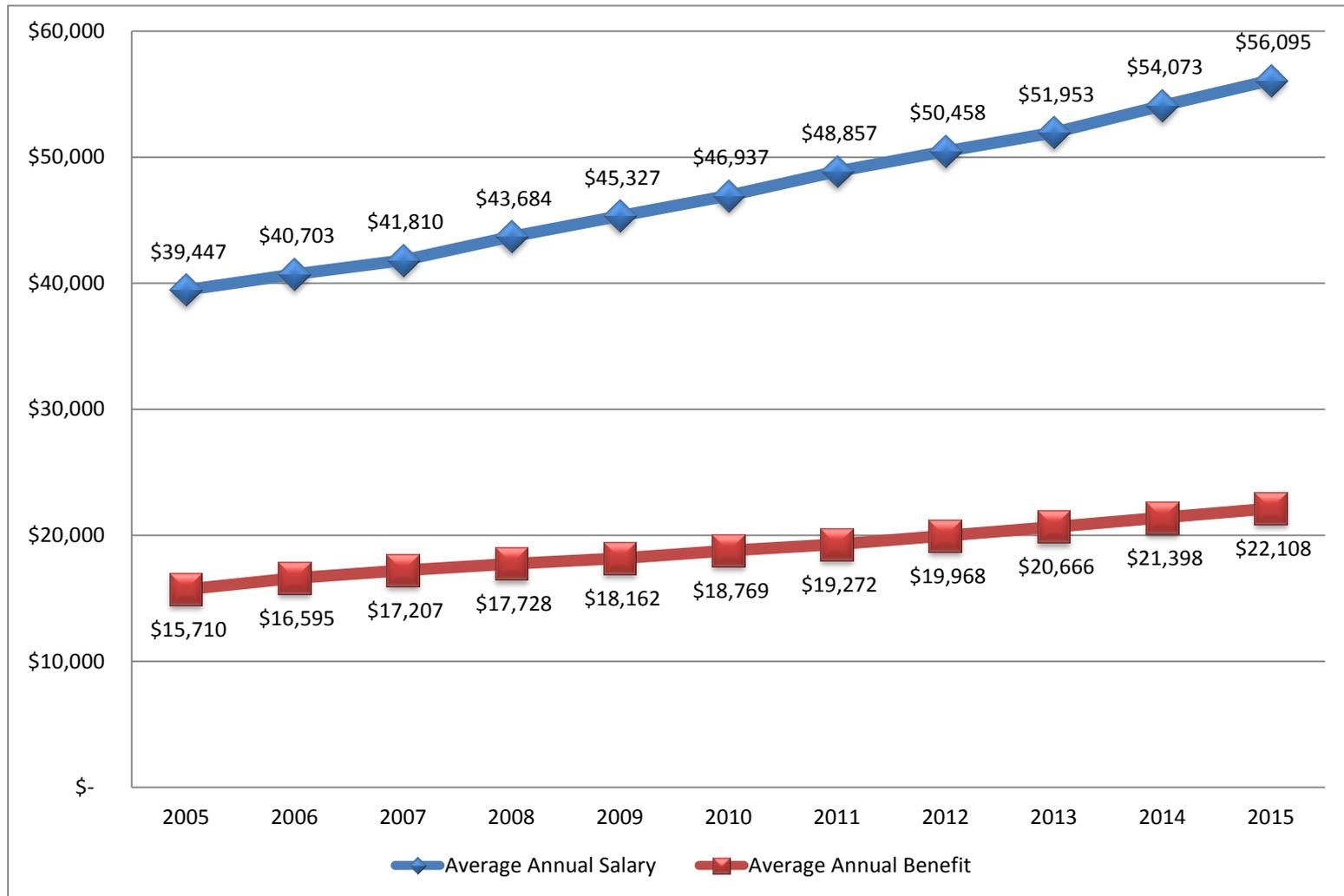


Since 2005, active payroll has increased, on average, 4.3% per year.

Average Age and Service of Active Members



Average Salary and Average Benefit



Since 2005, average salary has increased, on average, 3.6% per year. Average annual benefit has also increased by 3.5% per year.

Assets

- The market value of assets increased from \$2.09 billion (as of 6/30/2014) to \$2.14 billion (as of 6/30/2015)
 - Segal determined the investment return was 3.5%, net of investment expenses
- The actuarial value of assets – which smoothes investment gains and losses over five years – increased from \$1.94 billion (as of 6/30/2014) to \$2.13 billion (as of 6/30/2015)
 - Return of 10.7%, net of investment expenses
 - Actuarial value is 99.2% of market value
 - There is a total of \$17 million of deferred net investment gains that will be recognized in future years
- The average annual return on market assets
 - 10-year average is 5.9%
 - 20-year average is 7.1%
 - 30-year average is 8.2%
- The average annual return on actuarial assets
 - 10-year average is 6.0%
 - 20-year average is 7.0%
 - 30-year average is 7.5%

Market Value of Assets (\$ in millions)

Fiscal Year Ending June 30, 2015	
Beginning of Year	\$2,090*
Contributions:	
• Employer	78
• Member	72
• Service Purchases and Other	2
• Total	152
Benefits and Refunds	(172)
Administrative Expenses	(2)
Investment Income (net)	74
End of Year	\$2,142
Rate of Return	3.5%

* Restated due to GASB 68 implementation

Actuarial Value of Assets (\$ in millions)

1. Market Value of Assets as of June 30, 2014	\$2,090*
2. Cash Flow Items for FYE June 30, 2015	(22)
3. Expected Return	<u>167</u>
4. Expected Market Value of Assets (1) + (2) + (3)	\$2,235
5. Actual Market Value of Assets on June 30, 2015	2,142
6. Excess/(Shortfall) for FYE June 30, 2015 (5) – (4)	(93)
Excess/(Shortfall) Returns:	

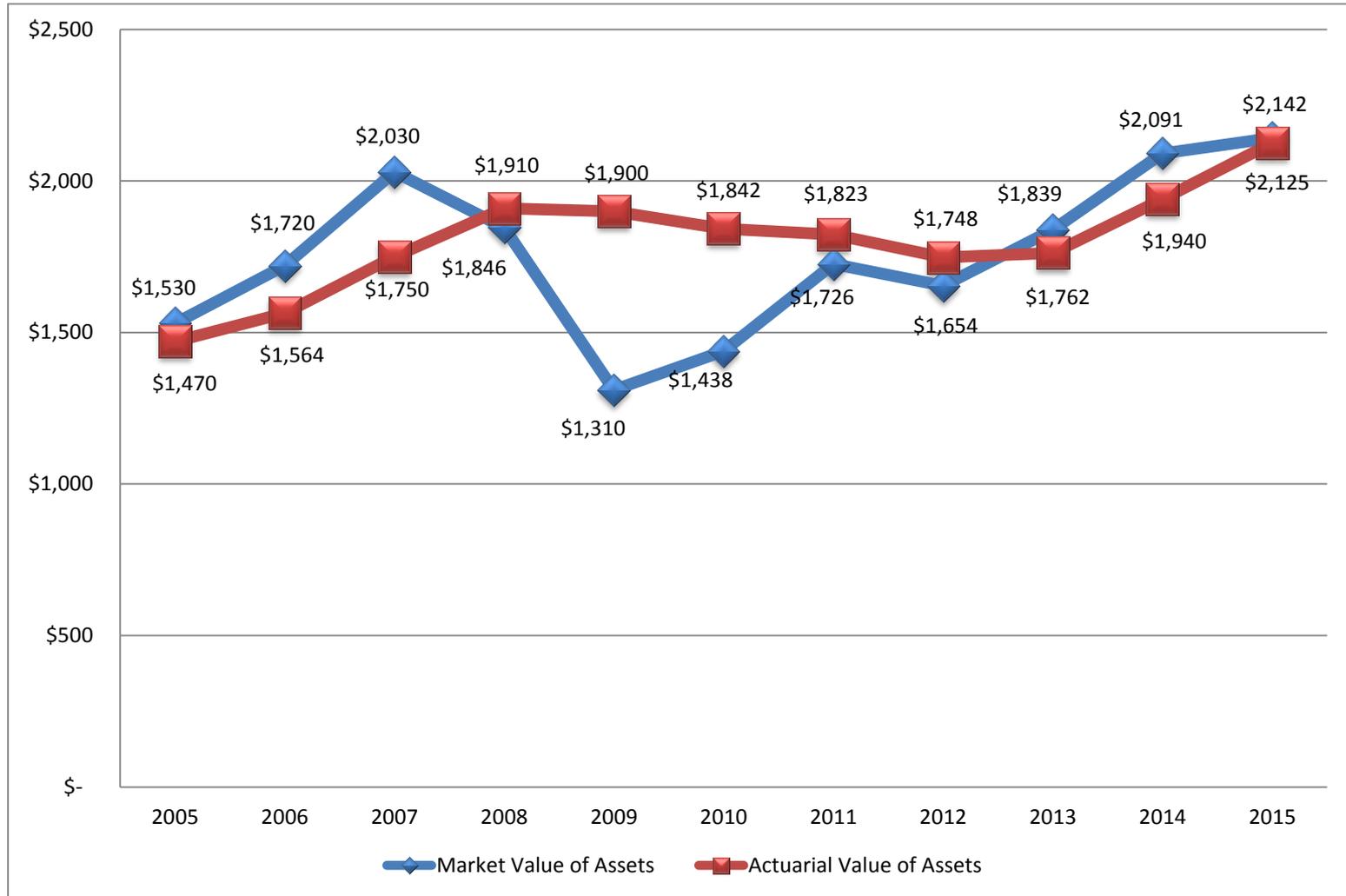
Year	Initial Amount	Deferral %	Unrecognized Amount
2015	(\$93)	80%	(\$74)
2014	147	60%	88
2013	87	40%	35
2012	(159)	20%	(32)
2011	220	0%	<u>0</u>
7. Total			\$17

8. Actuarial Value of Assets as of June 30, 2015 (5) - (7)	\$2,125
9. Actuarial Value of Assets as a % of Market Value of Assets	99.2%

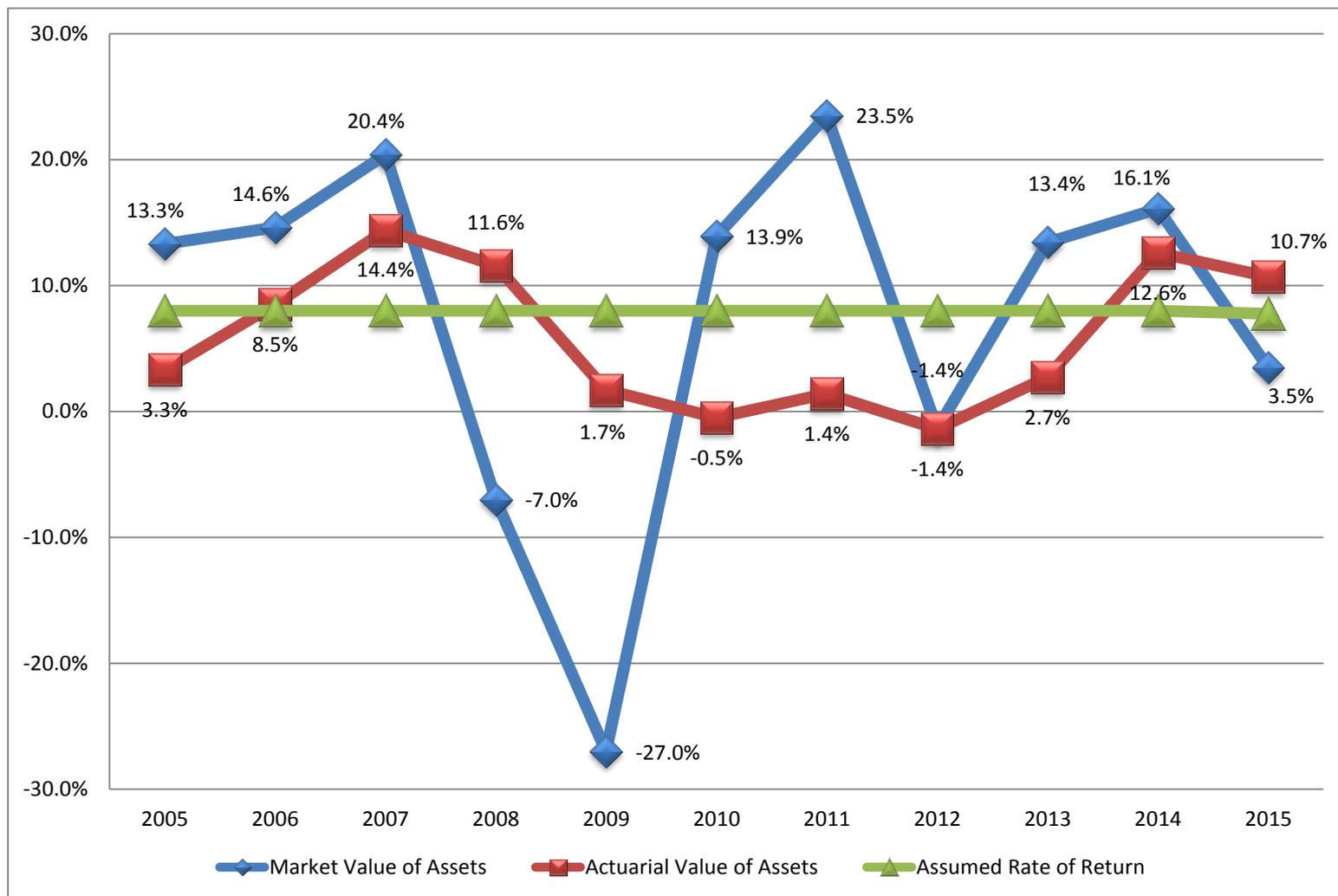
* Restated due to GASB 68 implementation

Market and Actuarial Values of Assets

\$ Millions

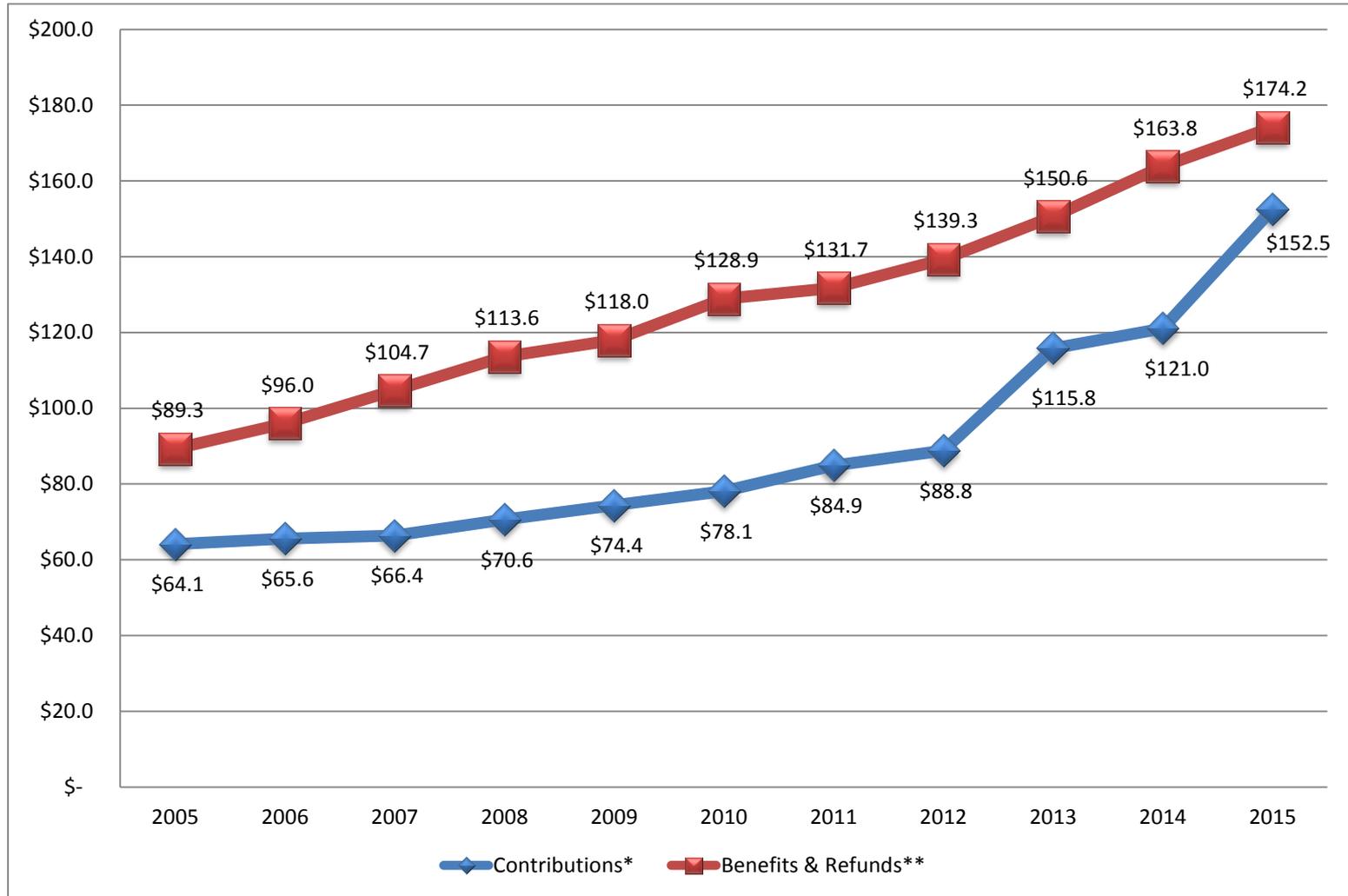


Asset Returns



Contributions vs. Benefits and Refunds

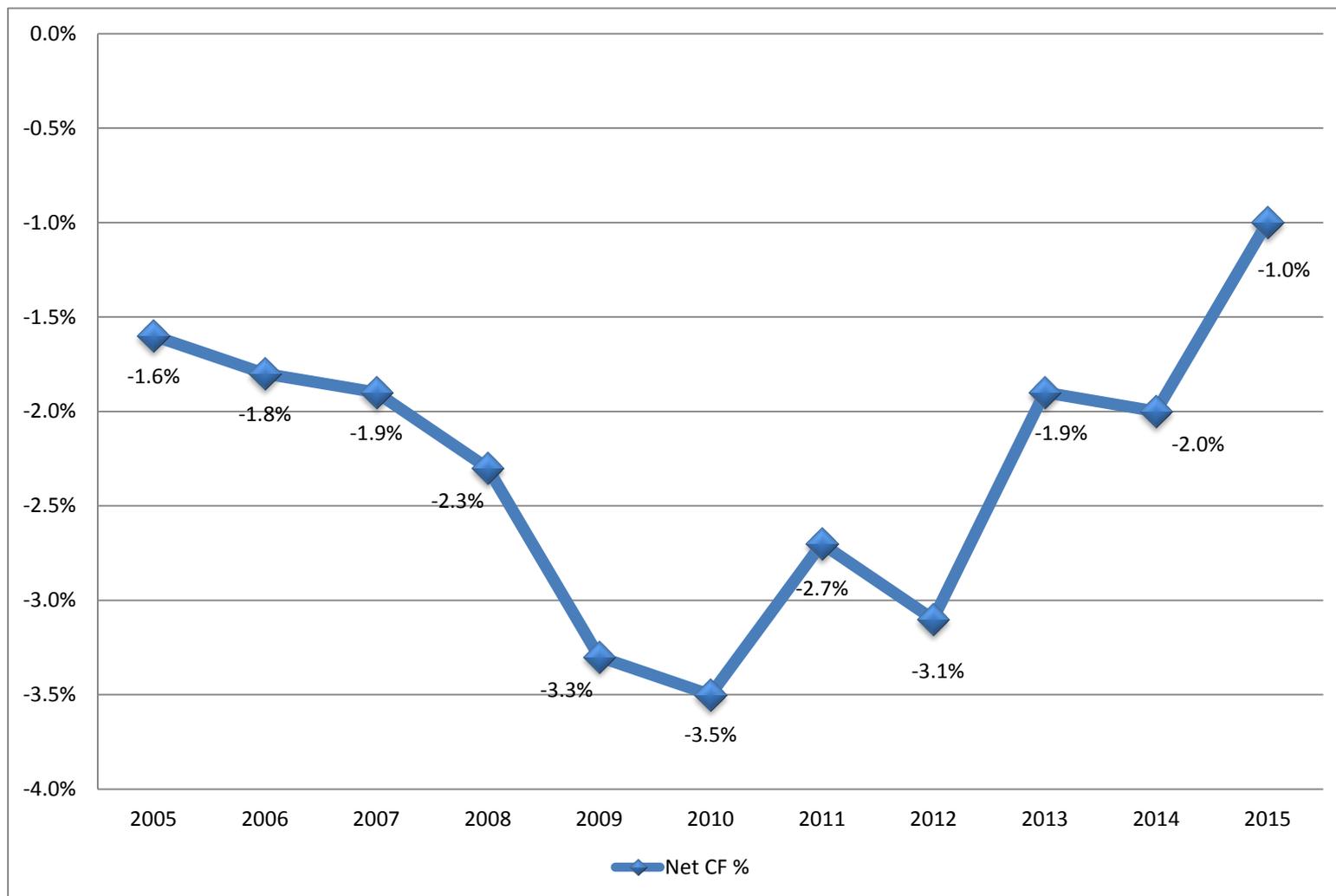
\$ Millions



* Includes member and employer contributions, service purchases, and other

** Includes administrative expenses

Net Cash Flow as a % of Market Value



Valuation Results (\$ in millions)

	July 1, 2015		July 1, 2014
	<u>Before Changes*</u>	<u>After Changes</u>	
Actuarial Accrued Liability:			
• Active Members	\$1,416	\$1,490	\$1,398
• Inactive Members	83	85	79
• Retirees and Beneficiaries	<u>1,779</u>	<u>1,875</u>	<u>1,662</u>
Total	\$3,278	\$3,450	\$3,139
Actuarial Assets	<u>2,125</u>	<u>2,125</u>	<u>1,940</u>
Unfunded Accrued Liability	\$1,153	\$1,325	\$1,198
Funded Ratio	64.8%	61.6%	61.8%
Effective Amortization Period**	21 years	29 years	24 years

* Prior to reflecting the assumption changes that were adopted effective July 1, 2015.

** Based on actuarial accrued liability, normal cost rate, and payroll as of the valuation date and that all actuarial assumptions are realized as expected.

Actuarially Determined Contribution

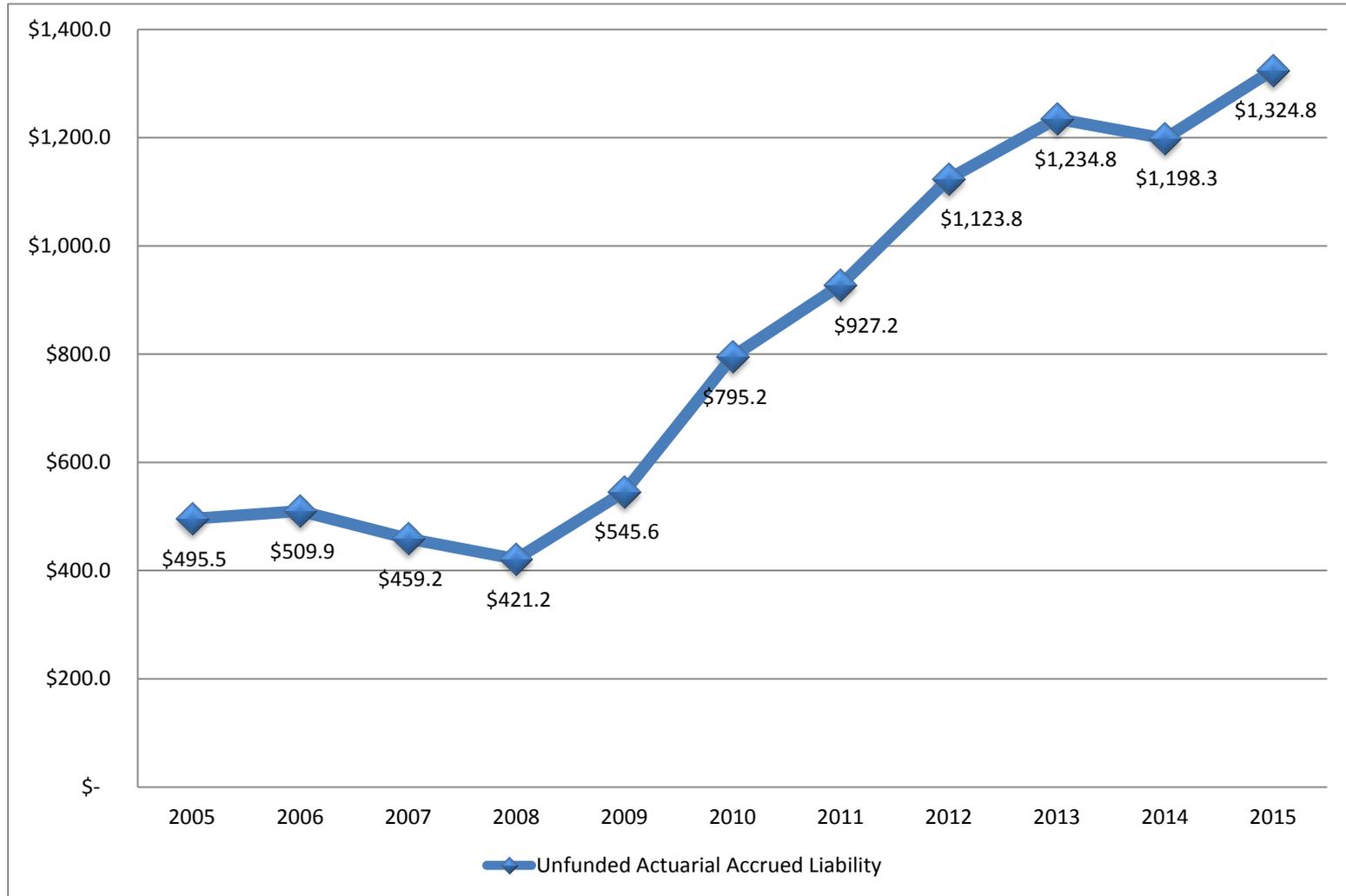
	July 1, 2015		July 1, 2014
	Before Changes*	After Changes	
Normal Cost Rate**	10.70%	11.63%	10.63%
Member Rate	<u>11.75%</u>	<u>11.75%</u>	<u>11.75%</u>
Employer Normal Cost Rate	-1.05%	-0.12%	-1.12%
Amortization of UAAL	<u>11.73%</u>	<u>13.16%</u>	<u>12.69%</u>
Actuarially Determined Contribution	10.68%	13.04%	11.57%
Employer Rate	12.75%	12.75%	12.75%
Contribution Sufficiency/(Deficiency)	2.07%	(0.29%)	1.18%

* Prior to reflecting the assumption changes that were adopted effective July 1, 2015.

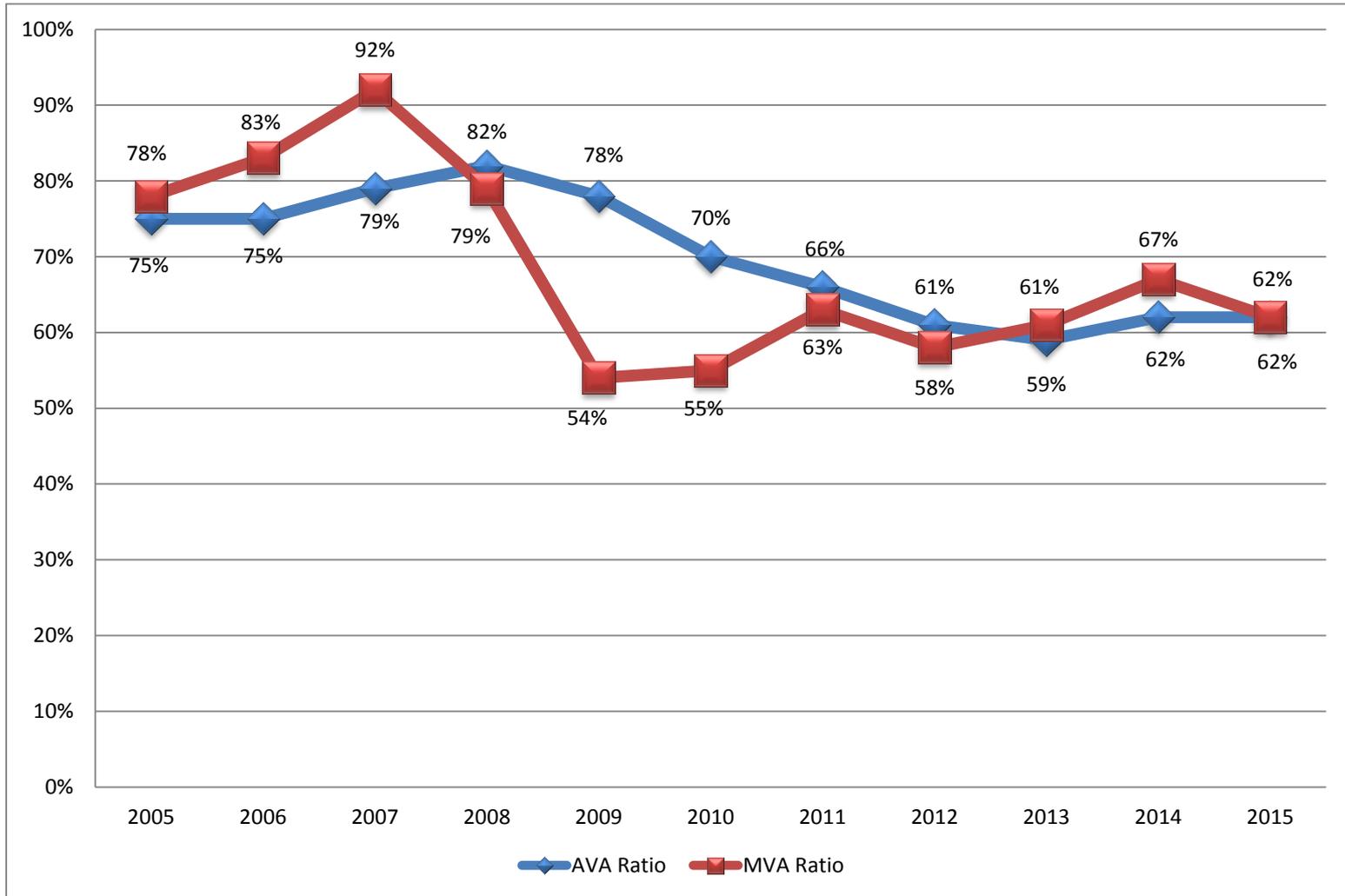
** Includes administrative expenses of \$1,976,285 for 2015

Unfunded Actuarial Accrued Liability

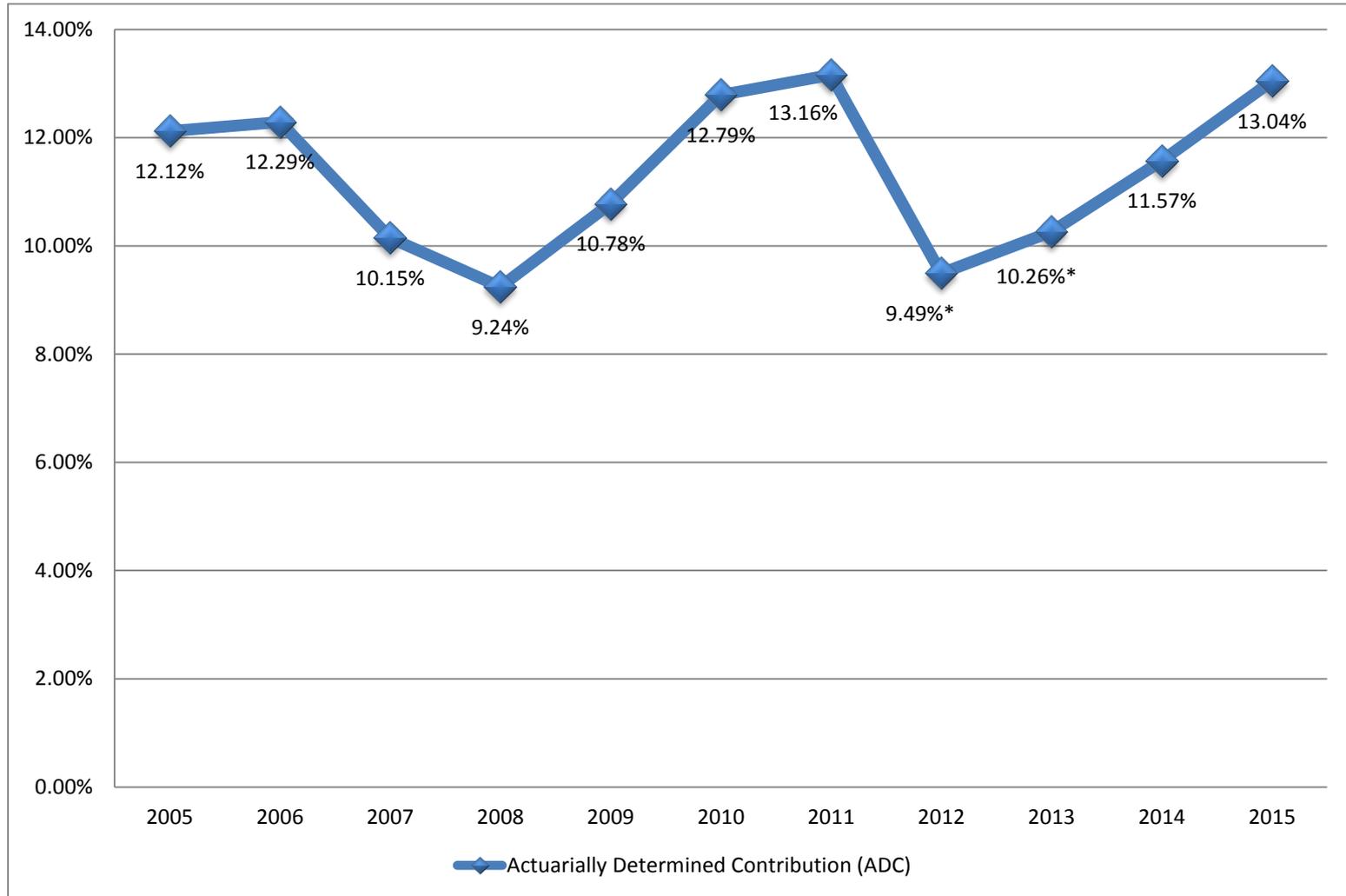
\$ Millions



Funded Ratios



Actuarially Determined Contribution (ADC)



- Prior to 2013, the calculation of the ADC was based on a 30-year open level percentage of payroll amortization.
- Beginning in 2013, the amortization period is 30-year closed.
- * Reflects the actuarial present value of contribution increases effective July 1, 2014.

Accounting Information – GASB 67 and 68

- Prior slides provided information on the funding of TFFR
- Next four slides provide information on the accounting requirements for TFFR and its employers
- Governmental Accounting Standards Board (GASB) adopted new accounting standards
 - GASB 67 provides for accounting with respect to plans and was effective for TFFR as of June 30, 2014
 - GASB 68 provides for financial reporting by employers and is effective for TFFR participating employers as of June 30, 2015

Net Pension Liability

- Net pension liability (NPL) is required to be reported in the Fund's financial statements and on each employer's balance sheet
 - Total pension liability (TPL) minus market value of assets
- Total pension liability based on:
 - Projected Value of Benefits (akin to Actuarial Accrued Liability)
 - Blended discount rate
 - Determined using projections of contributions and benefit payments
 - TFFR's discount rate is 7.75%
 - Entry age actuarial cost method

Employers' Reporting

- Employers are required to recognize and disclose their proportionate share of the collective pension amounts for all benefits provided by the Fund, which include:
 - Net pension liability
 - Deferred outflows of resources
 - Deferred inflows of resources
 - Pension expense
- Each employer must report its proportionate share of the net pension liability (NPL) in its financial statements
- TFFR uses covered payroll of active members as its basis for allocating the collective NPL
- GASB 68 information will be shown in a separate report

Net Pension Liability

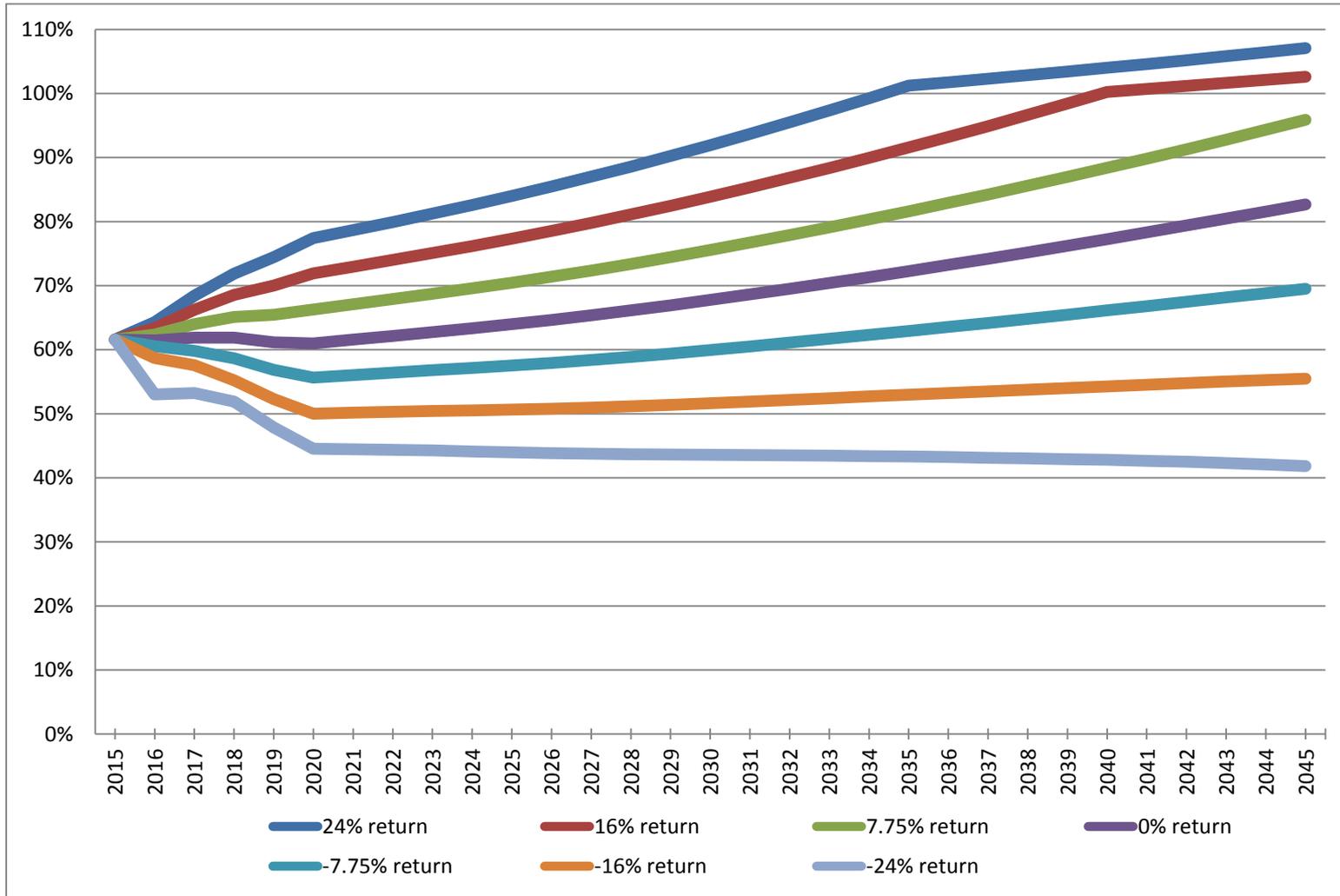
	June 30, 2015	June 30, 2014
Discount Rate	7.75%	8.00%
Total Pension Liability (TPL)	\$3,449,775,982	\$3,138,799,773
Plan Fiduciary Net Position (PFNP)	2,141,920,800	2,090,977,056
Net Pension Liability (NPL)	1,307,855,182	1,047,822,717
PFNP as a Percentage of TPL	62.1%	66.6%
Sensitivity to Changes in Discount rate		
• 1% Decrease	\$1,728,392,470	\$1,414,755,083
• Current Discount Rate	1,307,855,182	1,047,822,717
• 1% Increase	957,135,967	739,221,908

Projections

- Projections of estimated funded ratios for 30 years
 - Based on FY16 investment return scenarios ranging from -24% to +24%
 - Assumes Fund earns 7.75% per year in FY17 and each year thereafter
 - Additional projections assuming Fund earns 6.75% or 8.75% per year every year
 - All other experience is assumed to emerge as expected

- Includes statutory contribution rates
 - Member rate is 11.75% for FY15 and thereafter
 - Employer rate is 12.75% for FY15 and thereafter
 - Increases “sunset” back to 7.75% once the funded ratio reaches 100% (based on actuarial assets)

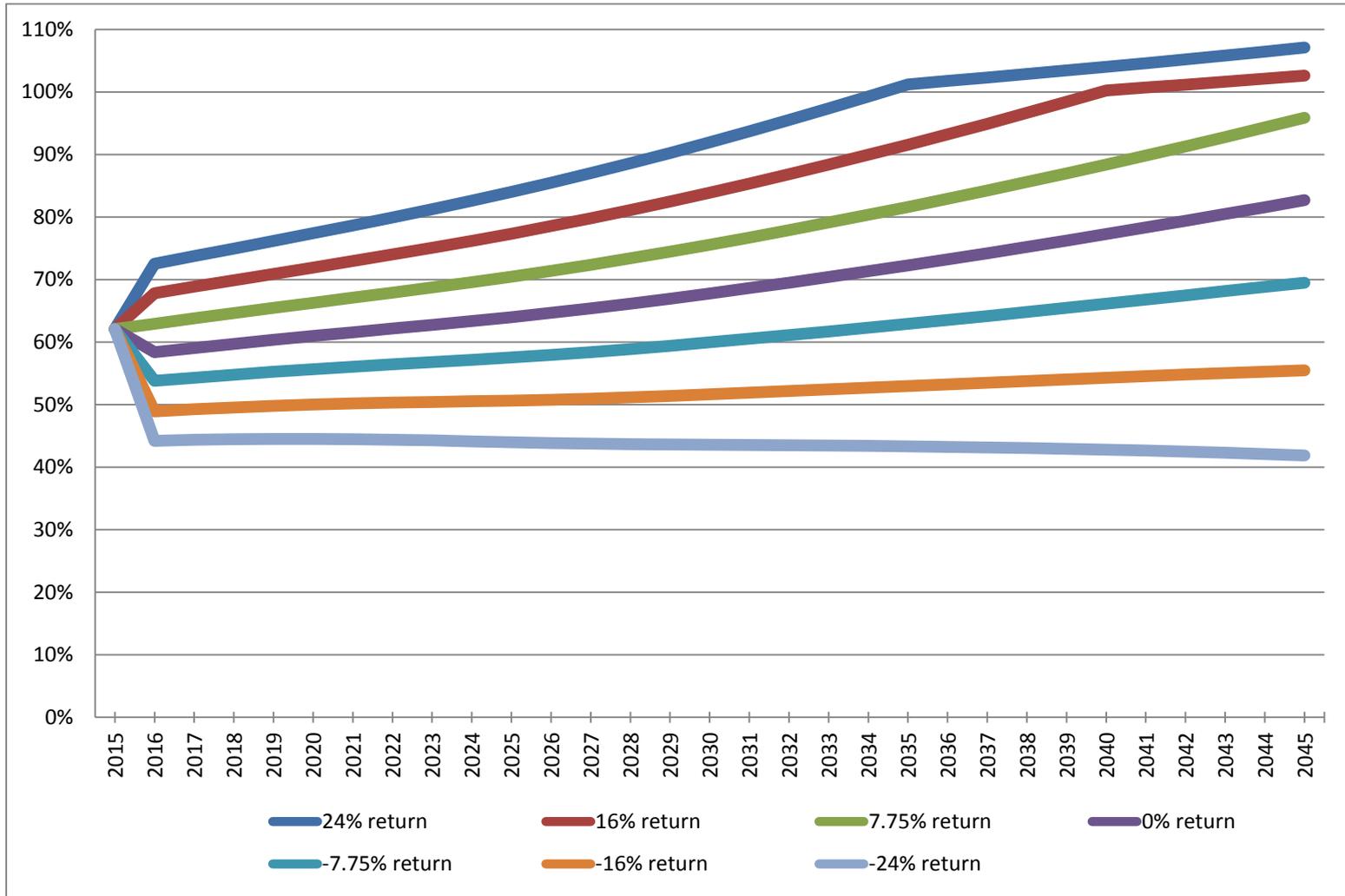
Projected Funded Ratios (AVA Basis)



Projected Funded Ratios (AVA Basis)

Valuation Year	24% for FY2016	16% for FY2016	7.75% for FY2016	0.00% for FY2016	-7.75% for FY2016	-16% for FY2016	-24% for FY2016
2015	62%	62%	62%	62%	62%	62%	62%
2016	64%	63%	62%	61%	61%	59%	53%
2017	68%	66%	64%	62%	60%	58%	53%
2018	72%	69%	65%	62%	59%	55%	52%
2019	74%	70%	65%	61%	57%	52%	48%
2020	77%	72%	66%	61%	56%	50%	45%
2025	84%	77%	70%	64%	58%	51%	44%
2030	92%	84%	76%	68%	60%	52%	44%
2035	101%	92%	82%	72%	63%	53%	43%
2040	104%	100%	88%	77%	66%	54%	43%
2045	107%	103%	96%	83%	69%	55%	42%

Projected Funded Ratios (MVA Basis)



Projected Funded Ratios (MVA Basis)

Valuation Year	24% for FY2016	16% for FY2016	7.75% for FY2016	0.00% for FY2016	-7.75% for FY2016	-16% for FY2016	-24% for FY2016
2015	62%	62%	62%	62%	62%	62%	62%
2016	73%	68%	63%	58%	54%	49%	44%
2017	74%	69%	64%	59%	54%	49%	44%
2018	75%	70%	65%	60%	55%	50%	45%
2019	76%	71%	65%	60%	55%	50%	45%
2020	77%	72%	66%	61%	56%	50%	45%
2025	84%	77%	70%	64%	58%	51%	44%
2030	92%	84%	76%	68%	60%	52%	44%
2035	101%	92%	82%	72%	63%	53%	43%
2040	104%	100%	88%	77%	66%	54%	43%
2045	107%	103%	96%	83%	69%	55%	42%

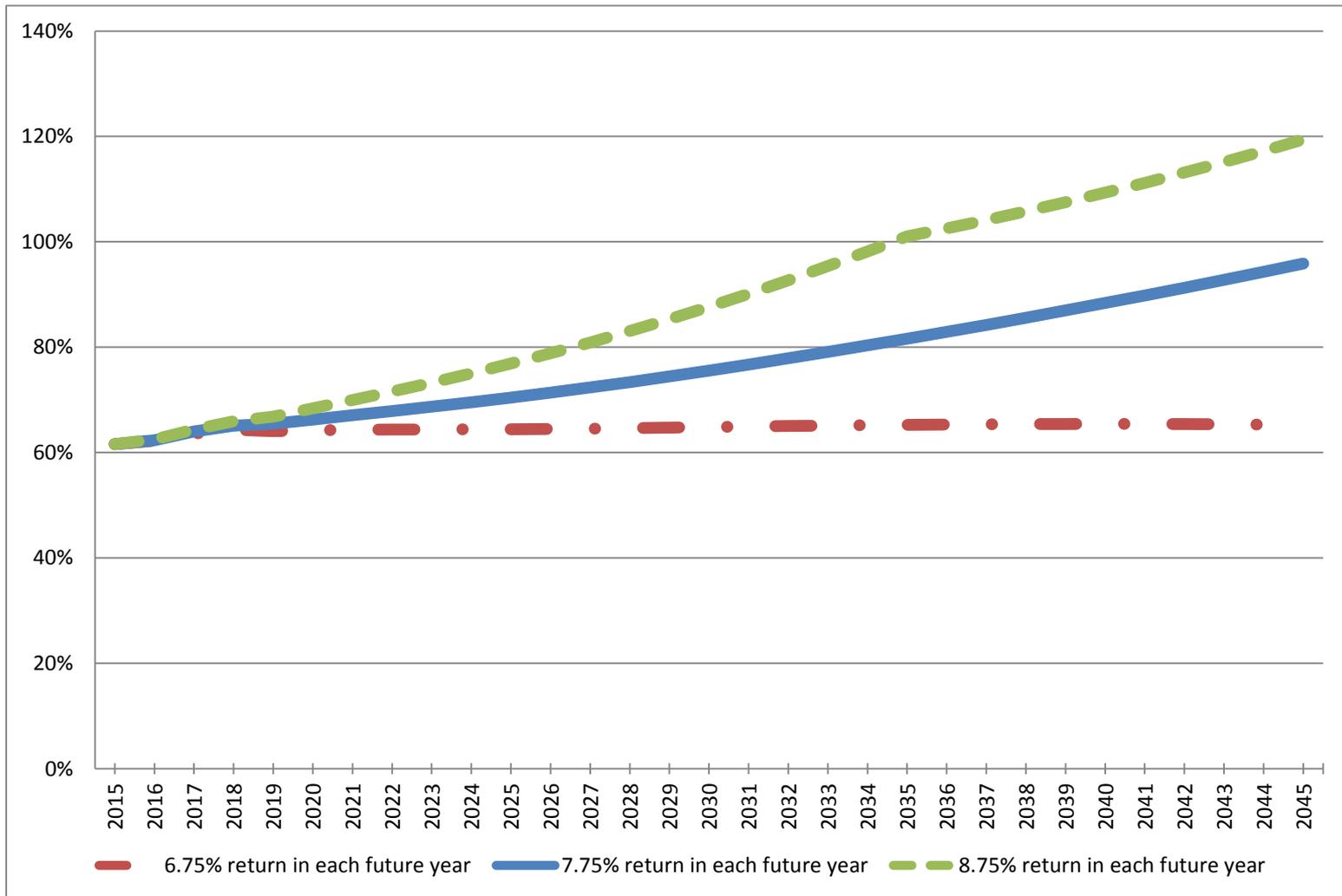
Projected Margin (AVA Basis)

Valuation Year	24% for FY2016	16% for FY2016	7.75% for FY2016	0.00% for FY2016	-7.75% for FY2016	-16% for FY2016	-24% for FY2016
2015	-0.29%	-0.29%	-0.29%	-0.29%	-0.29%	-0.29%	-0.29%
2016	0.22%	-0.11%	-0.46%	-0.78%	-1.10%	-1.75%	-3.75%
2017	1.31%	0.52%	-0.29%	-1.05%	-1.82%	-2.63%	-4.21%
2018	2.24%	0.99%	-0.29%	-1.50%	-2.70%	-3.99%	-5.23%
2019	2.90%	1.19%	-0.57%	-2.22%	-3.88%	-5.64%	-7.34%
2020	3.73%	1.56%	-0.69%	-2.80%	-4.90%	-7.15%	-9.32%
2025	5.10%	1.96%	-1.28%	-4.32%	-7.36%	-10.60%	-13.73%
2030	7.73%	2.89%	-2.11%	-6.80%	-11.49%	-16.48%	-21.32%
2035	3.93%	6.02%	-1.59%	-8.74%	-15.90%	-23.51%	-30.89%
2040	4.93%	3.47%	3.04%	-5.91%	-14.86%	-24.39%	-33.63%
2045	6.20%	4.37%	8.75%	-2.53%	-13.81%	-25.82%	-37.47%

* The projected margin is based on a 30-year closed period starting July 1, 2013. Once the period declines to 10 years remaining, the projected margin is based on a 10-year open period.

** If an overfunding exists, the surplus is amortized over a 30-year open period.

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



Projected Funded Ratios (AVA Basis)

Actual Returns +1% or -1% of Assumed



Glossary

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 Actuarially Determined 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., The plan'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 adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.), 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 discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Glossary

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, such as the ADC and the NPL.

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 ADC.

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.

Actuarially Determined Contribution (ADC): The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The ADC consists of the Employer Normal Cost and the Amortization Payment.

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.

Glossary

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

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.

Glossary

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.

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 ADC. 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 67 and GASB 68: Governmental Accounting Standards Board Statements No. 67 and No. 68. 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. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 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 Actuarially Determined Contribution (ADC) as defined by GASB.

Net Pension Liability: The Net Pension Liability is equal to Total Pension Liability minus Plan Fiduciary Net Position.

Glossary

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 at 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.

Plan Fiduciary Net Position: Market value of assets.

Real Rate of Return: Nominal rate of return on investments, adjusted for inflation.

Total Pension Liability: The actuarial accrued liability based on the blended discount rate as described in GASB 67/68.

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.

Questions?

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