



City of Atlanta

FY '23 PENSION PLAN CAP AND PROJECTIONS

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Introduction and Purpose

- The City of Atlanta implemented changes to its pension plans on June 29, 2011 (Ordinance 11-O-0672) after months of evaluating and analyzing the impact on the City's budget and employees of various pension systems ("Pension Reform").
- A **cap** of 35% on the total Defined Benefit plan annual cost was instituted as part of the 2011 changes:
 - The spirit of the cap was to provide an automatic trigger for the City and employees to evaluate its pension plans. The 35% was agreed to based upon assumptions and methods used during Pension Reform negotiations.
 - **The method used during Pension Reform to determine the annual cost, and evaluate the cap, was the Ultimate Entry Age Normal or Replacement Life method.** The projections in this presentation continue to use the Ultimate Entry Age method.
 - All plans currently utilize the Traditional Entry Age Normal method for purposes of determining annual cost and actuarial accrued liability. **Thus, the annual pension contributions in the actuarial valuation report will not equal the funding cost determined for evaluating the cap.**
 - **Furthermore, the cap will not equal the City's annual pension contribution divided by projected payroll.**
 - $\text{Cap} = \text{Annual Funding Cost under Ultimate Entry Age Normal method} \div \text{Projected Payroll}$
- This presentation provides an update on the status of the City's pension plans relative to Pension Reform, determines the cap for FY '23, and projects the cap under various scenarios.

Scope

- Segal Consulting was retained by the City of Atlanta Pension Investment Board to provide actuarial and technical analysis of the Fire, Police, and General pension funds.
- The scope of the actuarial and technical analysis includes:
 - Replicating plan liabilities for **Fire** and **Police** pension plans based on current actuarial assumptions for the respective pension plans
 - Projecting plan liabilities under Ultimate Entry Age Normal for **Fire, Police and General Employees**’ pension plans based on **assumptions used during 2011 Pension Reform**
 - Projecting annual cost and payroll for all of the City’s pension plans for purposes of determining the pension cap under **assumptions used during 2011 Pension Reform**
 - Determine “cap” as of FY ’23 and project date when cap will exceed 35% under **assumptions used during 2011 Pension Reform**
 - Analyze sensitivity of cap to investment returns by calculating the cap assuming future annual returns are 7.00% and 5.25% per annum.

Actuarial Certification

- Segal was retained to provide actuarial and technical analysis to the City of Atlanta Pension Investment Board regarding determination of the cap.
- The cap analysis was performed under the supervision of Jeanette R. Cooper, FSA, FCA, MAAA, EA with the assistance of Ben Kirkland, Matt Faems, and Jody Martin. Valuation data and reports as of July 1, 2021 for the Firefighters' and Police Officers' Pension Funds were provided by Southern Actuarial Services. That assistance is gratefully acknowledged.
- This presentation is intended for the use of the Investment Board and the City, for the purpose of modeling plan liabilities and costs for the City's pension funds relative to the 35% cap.
- Segal valuation results are based on proprietary modeling software. The actuarial models generate a comprehensive set of results that are presented to meet regulatory, legislative and client requirements. Deterministic projections are based on a proprietary forecasting model. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.
- Projections, by their nature, are not a guarantee of future results. They are intended to serve as estimates of future financial outcomes that are based on assumptions about future experience and the information available at the time the modeling is undertaken and completed. The charts included in this presentation show how the Plan would be affected if specific investment return, mortality, turnover, disability and retirement assumptions are met. Actual results may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.

Actuarial Certification (*continued*)

- Based on guidance from the City's Law and Finance Departments, the methods and assumptions used for the cap analysis are the Pension Reform methods and assumptions. These methods and assumptions were reasonably related to the experience of and the expectations of the Funds as of the time of Pension Reform (2010 to 2011). A description is provided on Slides 15 to 16 of this presentation.
- We have also provided results under current valuation methods and assumptions which we believe are reasonably related to the experience of and the expectations of the Funds as of the date of this presentation. The current valuation methods and assumptions are described in the July 1, 2021 valuation reports. The July 1, 2021 valuation reports for the Firefighters' and Police Officers' Pension Funds, dated July 18, 2022, were prepared by Southern Actuarial Services. The July 1, 2021 valuation for the General Employees' Pension Fund, dated July 15, 2022, was prepared by Segal.
- If market values were used instead of the smoothed actuarial value of assets, the results would differ.

Certified by:

Jeanette R. Cooper

Jeanette R. Cooper, FSA, FCA, MAAA, EA
Vice President and Consulting Actuary

| FY '23 Cap

Replicating Fire and Police Plan of Benefits

- The project scope includes Segal producing a full replication of the Fire and Police results based on the July 1, 2021 valuation reports (for FY '23).
- Segal collected participant data from the Plans' actuary and matched the most recent actuarial results using the assumptions and methods outlined in the July 1, 2021 actuarial reports.
- **Segal was not able to match each decrement to within 5%. Thus, the actual results would differ if determined by the Plans' actuary.**
- The following table compares the present value of benefits (PVB) under Segal's calculations and the Plans' actuary:

	2021 Valuation Report	Segal	Difference	% Difference
Fire				
• Actives	\$355,300,000	\$335,400,000	-\$19,900,000	-5.6%
• Inactives*	781,400,000	743,700,000	-37,700,000	-4.8%
Fire sub-total	\$1,136,700,000	\$1,079,100,000	-\$57,600,000	-5.1%
Police				
• Actives	\$739,900,000	\$661,500,000	-\$78,400,000	-10.6%
• Inactives*	1,090,500,000	1,045,000,000	-45,500,000	-4.2%
Police sub-total	\$1,830,400,000	\$1,706,500,000	-\$123,900,000	-6.8%
Fire + Police	\$2,967,100,000	\$2,785,600,000	-\$181,500,000	-6.1%

* Includes healthy retirees, disabled retirees, beneficiaries, terminated vested participants, and participants due refunds of their employee contributions.

FY '23 Cap Highlights

- **The cap percentage for FY '23 is 16.3% based on the actuarial assumptions and methods used at the time of Pension Reform.**
- The Plans have conducted actuarial experience studies and changed assumptions since Pension Reform.
 - Assumptions were updated based on demographic experience and recent trends in capital market assumptions and inflation as well as the Plans' target allocations.
 - Result is a more conservative outlook. Specifically, the plans periodically lowered the discount rate (or assumed rate of return) from 8.00% (7.75% for Fire and Police). The current discount rate is 7.00%.
 - The lowering of the discount rate has an inverse relationship on the cost (i.e., the lower the discount rate, the higher the annual cost; all other variables being equal).
 - In addition, other economic and demographic assumptions were periodically updated.
 - Thus, the annual cost using current assumptions will be higher than the cost produced using Pension Reform assumptions. Hence, the cap will be higher if current assumptions are used.
 - **The funded percentage would be about 8.9% lower if current assumptions were used.**
 - **The cap percentage would be about 16.4% higher if current assumptions were used.** This is mainly due to the current lower discount rate assumption and the difference in entry age method.
- **Based on guidance from the City's Law and Finance Departments, we have used the Pension Reform assumptions for purposes of determining the cap.**
- **Note, we have shown the cap and related liabilities using current assumptions to illustrate the risk if different assumptions were used.**

FY '23 Cap

Derivation of Cap (Pension Reform Assumptions)

The following table shows the detailed calculations of the cap in total, as well as by individual plan, using Pension Reform assumptions and methods:

	Fire	Police	General	Total
1. Present Value of Benefits	\$983,300,000	\$1,547,000,000	\$2,034,800,000	\$4,565,100,000
2. Actuarial Accrued Liability	\$914,400,000	\$1,422,200,000	\$1,948,900,000	\$4,285,500,000
3. Actuarial Value of Assets	\$810,900,000	\$1,310,100,000	\$1,457,300,000	\$3,578,300,000
4. Unfunded Actuarial Accrued Liability (2 – 3)	\$103,500,000	\$112,100,000	\$491,600,000	\$707,200,000
5. Funded Percentage (3 ÷ 2)	88.7%	92.1%	74.8%	83.5%
6. Gross Normal Cost	\$9,500,000	\$17,100,000	\$12,700,000	\$39,300,000
7. Administrative Expenses	\$300,000	\$600,000	\$0	\$900,000
8. Employee Contributions	(\$5,700,000)	(\$11,500,000)	(\$18,700,000)	(\$35,900,000)
9. Employer Normal Cost (6 + 7 + 8)	\$4,100,000	\$6,200,000	(\$6,000,000)	\$4,300,000
10. Amortization Payment Toward Unfunded (19-year)	\$7,400,000	\$8,000,000	\$34,200,000	\$49,600,000
11. Interest & Timing	\$800,000	\$1,100,000	\$2,400,000	\$4,300,000
12. Annual Recommended Contribution for FY '23 (9 + 10 + 11)	\$12,300,000	\$15,300,000	\$30,600,000	\$58,200,000
13. Projected Payroll	\$53,400,000	\$110,000,000	\$193,900,000	\$357,300,000
14. Cap % (12 ÷ 13)	23.0%	13.9%	15.8%	16.3%

FY '23 Cap

Derivation of Cap (Current Assumptions)

The following table shows the detailed calculations of the cap in total, as well as by individual plan, using rounded results from the 2021 valuations based on current assumptions and methods:

	Fire	Police	General	Total
1. Present Value of Benefits	\$1,136,700,000	\$1,830,400,000	\$2,173,800,000	\$5,140,900,000
2. Actuarial Accrued Liability	\$1,069,100,000	\$1,680,700,000	\$1,981,500,000	\$4,731,300,000
3. Actuarial Value of Assets	\$798,900,000	\$1,293,400,000	\$1,435,600,000	\$3,527,900,000
4. Unfunded Actuarial Accrued Liability (2 – 3)	\$270,200,000	\$387,300,000	\$545,900,000	\$1,203,400,000
5. Funded Percentage (3 ÷ 2)	74.7%	77.0%	72.5%	74.6%
6. Gross Normal Cost	\$9,900,000	\$21,000,000	\$24,800,000	\$55,700,000
7. Administrative Expenses	\$500,000	\$700,000	\$1,300,000	\$2,500,000
8. Employee Contributions	(\$5,000,000)	(\$10,400,000)	(\$19,000,000)	(\$34,400,000)
9. Employer Normal Cost (6 + 7 + 8)	\$5,400,000	\$11,300,000	\$7,100,000	\$23,800,000
10. Amortization Payment Toward Unfunded (20-year)	\$18,900,000	\$27,200,000	\$38,200,000	\$84,300,000
11. Interest & Timing	\$1,600,000	\$2,500,000	\$3,000,000	\$7,100,000
12. Annual Recommended Contribution for FY '23 (9 + 10 + 11)	\$25,900,000	\$41,000,000	\$48,300,000	\$115,200,000
13. Projected Payroll	\$50,700,000	\$106,200,000	\$195,500,000	\$352,400,000
14. Cap % (12 ÷ 13)	51.2%	38.6%	24.7%	32.7%

FY '23 Cap

Comparison to 2011 Pension Reform Projections – Highlights

- **The FY '23 cap of 16.3% is about 15.6% lower** than projected primarily due to favorable demographic and investment experience:
 - The Actuarial Accrued Liability (AAL) is about 11.3%, or about \$543.4 million, less than projected.
 - The Actuarial Value of Assets (AVA) is about 16.4%, or about \$504.3 million, more than projected primarily as a result of better than assumed investment performance.
- As a result of lower than projected Actuarial Accrued Liability (AAL) and higher than projected Actuarial Value of Assets (AVA), the Unfunded Actuarial Accrued Liability (UAAL) is about \$1,047.7 million less than projected or about 59.7% lower than projected.
- **Accordingly, the Annual Recommended Contribution (ARC) is about \$62.8 million less than projected, or about 51.9% less than projected.**
- **If the current assumptions and methods are used (instead of Pension Reform assumptions and methods), then the cap would be 32.7% versus the 31.9% projected in 2011.**

FY '23 Cap

Comparison to 2011 Pension Reform Projections – Details

The following table shows the detailed comparison of FY '23 plan liabilities and cost versus plan liabilities and cost for FY '23 projected at the time of the 2011 Pension Reform:

	FY '23 (Updated Projections)	FY '23 (2011 Pension Reform Projections)	Change from 2011 Pension Reform Projections
1. Present Value of Benefits	\$4,565,100,000	\$5,029,700,000	(\$464,600,000)
2. Actuarial Accrued Liability	\$4,285,500,000	\$4,828,900,000	(\$543,400,000)
3. Actuarial Value of Assets	\$3,578,300,000	\$3,074,000,000	\$504,300,000
4. Unfunded Actuarial Accrued Liability (2 – 3)	\$707,200,000	\$1,754,900,000	(\$1,047,700,000)
5. Funded Percentage (3 ÷ 2)	83.5%	63.7%	19.8%
6. Gross Normal Cost (incl expenses)	\$40,200,000	\$25,300,000	\$14,900,000
7. Employee Contributions	(\$35,900,000)	(\$37,100,000)	\$1,200,000
8. Employer Normal Cost (6 + 7)	\$4,300,000	(\$11,800,000)	\$16,100,000
9. Amortization Payment Toward Unfunded (19-year)	\$49,600,000	\$123,600,000	(\$74,000,000)
10. Interest & Timing	\$4,300,000	\$9,200,000	(\$4,900,000)
11. Annual Recommended Contribution for FY '23 (8 + 9 + 10)	\$58,200,000	\$121,000,000	(\$62,800,000)
12. Projected Payroll	\$357,300,000	\$379,600,000	(\$22,300,000)
13. Cap % (11 ÷ 12)	16.3%	31.9%	-15.6%

| Cap Projections

Projection Assumptions and Methods

Pension Reform Assumptions

The following assumptions were used during Pension Reform based on the most recent actuarial valuations at the time (July 1, 2010 for General; January 1, 2010 for Fire and Police):

Discount Rate	<ul style="list-style-type: none"> • 8.00% for General; 7.75% for Police and Fire
Investment Return	<ul style="list-style-type: none"> • 8.00% for General; 7.75% for Police and Fire annually
Projection Methodology	<ul style="list-style-type: none"> • Projected liabilities based on July 1, 2010 valuation assuming all economic and demographic assumptions are met thereafter; • Future hire age 35 (28 for Public Safety) with average salary of \$35K (\$40K for Public Safety) assumed to replace current employees such that participant counts remain constant; projected salary assumed to increase 3.25% per year
Market Value of Assets	<ul style="list-style-type: none"> • Based on assets as of April 12, 2011 as reported by Gray & Co.; • General Employees = \$850.6M ; Fire = \$501.9M; Police = \$704.5M
Asset Valuation Method	<ul style="list-style-type: none"> • 5-year smoothing of investment gains/losses
Funding Method	<ul style="list-style-type: none"> • Ultimate Entry Age Normal (Ultimate or “replacement life” methodology, i.e., Normal cost reflects benefits for future employees; see Appendices for detailed explanation)
Data	<ul style="list-style-type: none"> • General Employees as of July 1, 2009 with age/service adjusted to July 1, 2010; • Fire & Police as of January 1, 2010 with age/service adjusted to July 1, 2010
Employee Contributions	<ul style="list-style-type: none"> • Assumes employees hired before November 2011 contribute 12.75% toward Defined Benefit plan (12.00% without beneficiary; 13.00% with beneficiary); • 8.00% for employees hired after November 2011
City’s Contribution	<ul style="list-style-type: none"> • Based on July 1 valuation preceding fiscal year, adjusted for timing; • Assumes City fully funds Annual Recommended Contribution (ARC); ARC = Normal Cost plus Payment to amortize Unfunded Actuarial Accrued Liability (UAAL) over closed 30-year period beginning FY ‘12, increasing approximately 4.50% per year (4.0% for Fire and Police)
Administrative Expenses	<ul style="list-style-type: none"> • None for General; 0.50% of projected payroll for Police and Fire

Projection Assumptions and Methods

Pension Reform Assumptions (continued)

The following assumptions were used during Pension Reform based on the most recent actuarial valuations at the time (July 1, 2010 for General; January 1, 2010 for Fire and Police):

Salary Increases	<ul style="list-style-type: none"> • 9.00% at age 25 grading down to 5.25% at age 50 for General; 4.00% for Police and Fire
COLA	<ul style="list-style-type: none"> • 3.00% for employees hired before November 2011; 1.00% for employees hired after November 2011
Mortality	<ul style="list-style-type: none"> • General Employees: Healthy participants – RP-2000 Combined Healthy Mortality Table, Disabled Participants – RP-2000 Disabled Retiree Mortality Table • Fire & Police: Pre-retirement – RP-2000 Non-Annuitant Postretirement – RP-2000 Annuitant
Disability	<ul style="list-style-type: none"> • General Employees: Ordinary rates for males increasing from 0.11% at age 20 to 2.38% at age 60 and for females increasing from 0.05% at age 20 to 1.64% at age 60; Occupational disability rates are 10% of ordinary rates • Fire and Police: Ordinary rates from Wyatt 1985 Disability Study (Class 4); Occupational rates are 67% of ordinary rates for Fire and 75% for Police and General Employees
Termination	<ul style="list-style-type: none"> • General Employees: 5-year select and ultimate table; for most participants 26.25% in first year grading down to 11.25% in fifth year; ultimate rates grade down from 11.25% at age 25 to 0% at age 50 • Fire: 5.454% at age 20 grading down to 0% at age 55 • Police: 15% at age 20 grading down to 0% at age 55
Retirement	<ul style="list-style-type: none"> • General Employees: Rates differ for those with less than 30 years of service and those with 30 or more years of service and are based on ages from age 50 to age 70 • Fire and Police: Normal retirement age
Percent Married	<ul style="list-style-type: none"> • General Employees: 75% • Fire & Police: Based on contribution rate provided in valuation data
Spouse Age Difference	<ul style="list-style-type: none"> • All plans: participants are assumed to have spouses of the opposite gender and male spouses are assumed to be three years older than female spouses
Other Assumptions	<ul style="list-style-type: none"> • Please see 2010 valuation reports for other assumptions and more detail.

Cap Projections

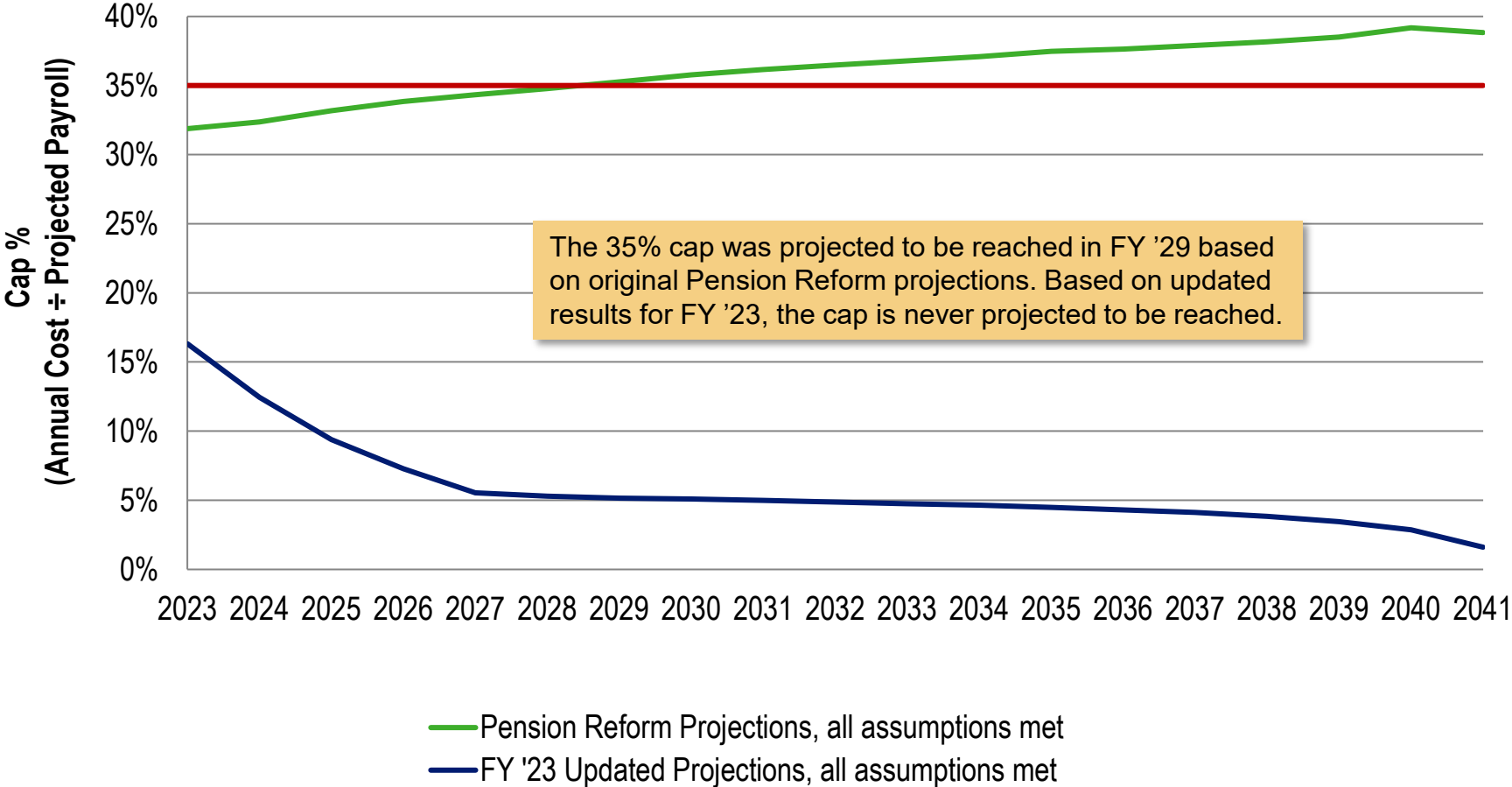
Highlights

- **The 35% cap was projected to be reached in FY '29 based on Pension Reform projections performed June 2011 assuming all assumptions are met.**
- **The 35% cap is not projected to ever be reached based on the FY '23 results projected forward with Pension Reform assumptions assuming all assumptions are met.**
 - If the actual annual investment return is 7.00%, instead of the 7.75% or 8.00% assumed, then the cap would be reached in FY '40.
 - If the actual annual investment return is 5.25%, then the cap would be reached in FY '35 assuming all other assumptions are met.

Cap Projections

Comparison to Pension Reform Projections

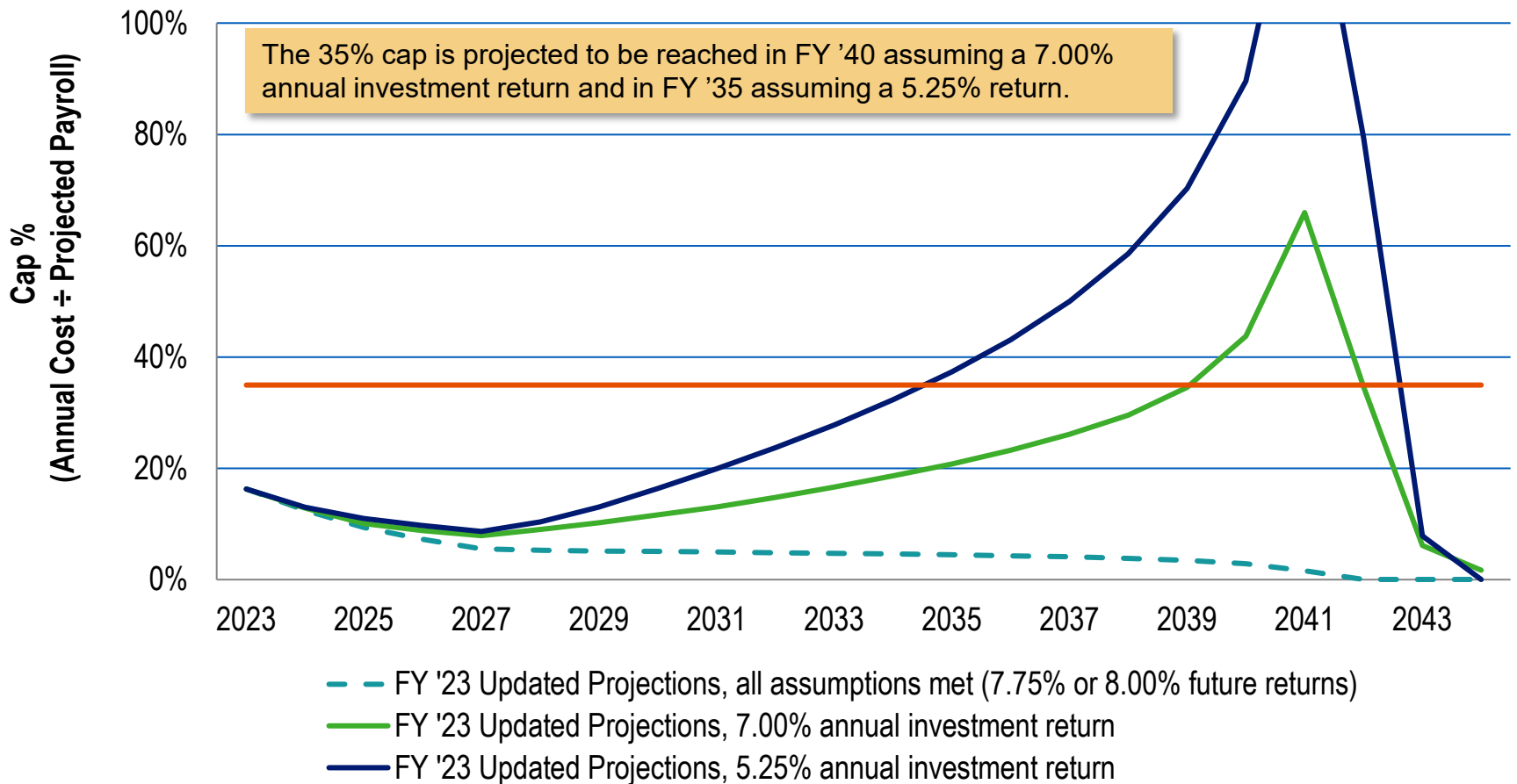
The following compares the projected cap from Pension Reform to the projected cap based on FY '23 results using updated assets and census data and **assuming all assumptions are met in the future.**



Cap Projections

Projected Cap Assuming Lower Investment Return

The following compares the projected cap based on FY '23 updated results to the projected cap **assuming a 7.00% or 5.25% annual investment return and all other assumptions met in the future.**



Thank you!



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| Appendices

Appendices

Glossary of Terms

Actuarial Accrued Liability (AAL)	The portion of the Present Value of Projected Benefits (PVB) that has been accrued (or earned) to date. AAL is also expressed as difference between PVB and actuarial present value of future normal costs, or the accumulated normal costs attributable to the years before the valuation date.
Annual Recommended Contribution (ARC)	Sum of Normal Cost (NC) and amortization of Unfunded Actuarial Accrued Liability (UAAL). This is the amount actuarially determined to ensure that, if paid on an ongoing basis, there will be sufficient resources available for future benefit payments.
Normal Cost (NC)	Represents portion of PVB allocated to the current year by the funding method.
Present Value of Projected Benefits (PVB)	Present value of all future benefit payments for current retirees and active employees, taking into account actuarial assumptions including discount rate, salary increases, turnover, mortality, disability, retirement and other experience.
Unfunded Actuarial Accrued Liability (UAAL)	The difference between the Actuarial Accrued Liability and the Actuarial Value of Assets.

Appendices

Ultimate Entry Age Normal Description

An essential part of the public sector budgeting process is that large budget items, including pensions, should have a level cost pattern from year to year to the extent possible. The Ultimate Entry Age Normal method allocates pension contributions to time periods so that, if the actuarial assumptions are exactly realized, the Annual Recommended Contribution (ARC) will remain a level percent of pay from year to year.

Fundamentally, the ARC has two components:

1. **Normal Cost:** The allocation to the coming year of pension costs for active employees in that year.
2. **Amortization of the Unfunded Actuarial Accrued Liability (UAAL):** The coming year's payment toward pension costs allocated to prior years for which assets are not yet on hand.

The Entry Age Normal (EAN) actuarial cost method determines the Normal Cost for an individual by calculating the level percent of pay that, if contributed each year over that person's career, would accumulate with interest to the amount projected to be needed to pay that person's pension benefits, and multiplying that "Normal Cost rate" times the person's current pay. Clearly, that produces the desired outcome with respect to each individual—a level percent of pay Normal Cost from year to year. Where there is a single plan of benefits applicable to all service for all employees, the total Normal Cost – the summation of the individual Normal Costs—will also remain essentially level for the group, if the distribution of hire ages and retirement ages is stable. Further, each time there is a termination of employment (due to retirement, death, disability, or other termination), there will be no change in the total Normal Cost rate if the replacement employee is hired at the same age as the age at hire of the terminating employee.

A complication arises if the plan of benefits is not the same for all service for all employees. In that circumstance, the Normal Cost rate will change if the terminating employee is in Plan A and the new hire is in Plan B. If Plan A is more generous, then there will be a tendency for the Normal Cost rate to decline as a percent of pay over time, as Plan A employees terminate and are replaced by Plan B employees. This no longer meets the level funding objective.

The Ultimate Entry Age Normal method addresses this problem by determining the Normal Cost as though Plan B, the plan applicable to new hires (so-called "replacement lives"), covered everyone. In the case where Plan B is less generous, that produces a lower Normal Cost than reflecting each person's actual plan. With that variation on EAN, there is once again a level Normal Cost.

Of course, an essential requirement of any typical actuarial cost method is that the present value of all future benefits for existing participants must be matched by the value of assets on hand plus the present value of future ARCs. The reduction in the current and future Normal Cost for Plan A people who are assigned a Plan B Normal Cost must therefore be offset by an increase in the UAAL that has the same present value. ***For a plan where the UAAL is routinely amortized as a level percent of pay, the end result is exactly what is desired. Each of the two components of the ARC is a level percent of pay, so the total is as well.*** Whether the ARC for the coming year is higher or lower as a result depends on a number of additional factors. Eventually, however, all benefits need to be funded, so this is a timing effect only.

Appendices

2011 Pension Reform Projections (All Plans)

	Fiscal Year 2012			Fiscal Year 2023			Fiscal Year 2028		
	Current Plan	Proposed Plan	Change	Current Plan	Proposed Plan	Change	Current Plan	Proposed Plan	Change
1. Present Value of Benefits	\$3,756,700,000	\$3,756,700,000	\$0	\$5,318,400,000	\$5,029,700,000	(\$288,700,000)	\$6,009,600,000	\$5,425,700,000	(\$583,900,000)
2. Actuarial Accrued Liability	\$3,382,100,000	\$3,608,200,000	\$226,100,000	\$4,844,700,000	\$4,828,900,000	(\$15,800,000)	\$5,432,600,000	\$5,181,100,000	(\$251,500,000)
3. Actuarial Value of Assets	\$1,944,900,000	\$1,944,900,000	\$0	\$3,314,300,000	\$3,074,000,000	(\$240,300,000)	\$3,946,800,000	\$3,464,900,000	(\$481,900,000)
4. Unfunded Actuarial Accrued Liability (2 – 3)	\$1,437,200,000	\$1,663,300,000	\$226,100,000	\$1,530,400,000	\$1,754,900,000	\$224,500,000	\$1,485,800,000	\$1,716,200,000	\$230,400,000
5. Funded Percentage (3 ÷ 2)	57.5%	53.9%	-3.6%	68.4%	63.7%	-4.7%	72.7%	66.9%	-5.8%
6. Gross Normal Cost	\$43,900,000	\$19,200,000	(\$24,700,000)	\$58,300,000	\$25,300,000	(\$33,000,000)	\$67,600,000	\$29,300,000	(\$38,300,000)
7. Expected Employee Contributions	(\$21,500,000)	(\$29,100,000)	(\$7,600,000)	(\$28,100,000)	(\$37,100,000)	(\$9,000,000)	(\$32,800,000)	(\$39,400,000)	(\$6,600,000)
8. Employer Normal Cost (6 + 7)	\$22,400,000	(\$9,900,000)	(\$32,300,000)	\$30,200,000	(\$11,800,000)	(\$42,000,000)	\$34,800,000	(\$10,100,000)	(\$44,900,000)
9. Amortization Payment on Unfunded	\$75,400,000	\$87,300,000	\$11,900,000	\$107,800,000	\$123,600,000	\$15,800,000	\$131,400,000	\$151,800,000	\$20,400,000
10. Interest & Timing	\$8,100,000	\$6,300,000	(\$1,800,000)	\$11,400,000	\$9,200,000	(\$2,200,000)	\$13,600,000	\$11,700,000	(\$1,900,000)
11. Total Defined Benefit (DB) Plan Cost (8 + 9 + 10)	\$105,900,000	\$83,700,000	(\$22,200,000)	\$149,400,000	\$121,000,000	(\$28,400,000)	\$179,800,000	\$153,400,000	(\$26,400,000)
12. Projected Payroll	\$291,500,000	\$291,500,000	N/A	\$379,600,000	\$379,600,000	N/A	\$441,300,000	\$441,300,000	N/A
13. DB Cost as a % of Payroll (11 ÷ 12)	36.3%	28.7%	-7.6%	39.4%	31.9%	-7.5%	40.7%	34.8%	-5.9%
14. Defined Contribution (DC) Plan Cost	\$0	\$0	\$0	\$0	\$7,100,000	\$7,100,000	\$0	\$11,500,000	\$11,500,000
15. DC Cost as a % of Payroll (14 ÷ 12)	0.0%	0.0%	0.0%	0.0%	1.9%	1.9%	0.0%	2.6%	2.6%
16. Total Retirement Plan Cost (11 + 14)	\$105,900,000	\$83,700,000	(\$22,200,000)	\$149,400,000	\$128,100,000	(\$21,300,000)	\$179,800,000	\$164,900,000	(\$14,900,000)

NOTES:

- 1 Current plan represents the benefit provisions *prior to* Pension Reform using actuarial assumptions and methods described on Slides 15-16.
- 2 Proposed plan represents the benefit provisions *after* Pension Reform using actuarial assumptions and methods described on Slides 15-16.

Appendices

2011 Pension Reform Projections (General)

	Fiscal Year 2012			Fiscal Year 2023			Fiscal Year 2028		
	Current Plan	Proposed Plan	Change	Current Plan	Proposed Plan	Change	Current Plan	Proposed Plan	Change
1. Present Value of Benefits	\$1,688,700,000	\$1,688,700,000	\$0	\$2,292,800,000	\$2,163,200,000	(\$129,600,000)	\$2,581,700,000	\$2,301,800,000	(\$279,900,000)
2. Actuarial Accrued Liability	\$1,517,000,000	\$1,615,900,000	\$98,900,000	\$2,076,800,000	\$2,055,600,000	(\$21,200,000)	\$2,305,300,000	\$2,164,000,000	(\$141,300,000)
3. Actuarial Value of Assets	\$866,900,000	\$866,900,000	\$0	\$1,387,700,000	\$1,282,800,000	(\$104,900,000)	\$1,631,200,000	\$1,408,800,000	(\$222,400,000)
4. Unfunded Actuarial Accrued Liability (2 – 3)	\$650,100,000	\$749,000,000	\$98,900,000	\$689,100,000	\$772,800,000	\$83,700,000	\$674,100,000	\$755,200,000	\$81,100,000
5. Funded Percentage (3 ÷ 2)	57.2%	53.7%	-3.5%	66.8%	62.4%	-4.4%	70.8%	65.1%	-5.7%
6. Gross Normal Cost	\$19,500,000	\$9,600,000	(\$9,900,000)	\$28,000,000	\$13,700,000	(\$14,300,000)	\$33,300,000	\$16,400,000	(\$16,900,000)
7. Expected Employee Contributions	(\$11,600,000)	(\$15,500,000)	(\$3,900,000)	(\$16,100,000)	(\$20,700,000)	(\$4,600,000)	(\$19,300,000)	(\$22,600,000)	(\$3,300,000)
8. Employer Normal Cost (6 + 7)	\$7,900,000	(\$5,900,000)	(\$13,800,000)	\$11,900,000	(\$7,000,000)	(\$18,900,000)	\$14,000,000	(\$6,200,000)	(\$20,200,000)
9. Amortization Payment on Unfunded	\$33,600,000	\$38,700,000	\$5,100,000	\$48,000,000	\$53,800,000	\$5,800,000	\$59,100,000	\$66,200,000	\$7,100,000
10. Interest & Timing	\$3,500,000	\$2,800,000	(\$700,000)	\$5,200,000	\$4,100,000	(\$1,100,000)	\$6,300,000	\$5,200,000	(\$1,100,000)
11. Total Defined Benefit (DB) Plan Cost (8 + 9 + 10)	\$45,000,000	\$35,600,000	(\$9,400,000)	\$65,100,000	\$50,900,000	(\$14,200,000)	\$79,400,000	\$65,200,000	(\$14,200,000)
12. Projected Payroll	\$157,100,000	\$157,100,000	N/A	\$216,200,000	\$216,200,000	N/A	\$257,000,000	\$257,000,000	N/A
13. DB Cost as a % of Payroll (11 ÷ 12)	28.6%	22.7%	-6.0%	30.1%	23.5%	-6.6%	30.9%	25.4%	-5.5%
14. Defined Contribution (DC) Plan Cost	\$0	\$0	\$0	\$0	\$4,400,000	\$4,400,000	\$0	\$7,100,000	\$7,100,000
15. DC Cost as a % of Payroll (14 ÷ 12)	0.0%	0.0%	0.0%	0.0%	2.0%	2.0%	0.0%	2.8%	2.8%
16. Total Retirement Plan Cost (11 + 14)	\$45,000,000	\$35,600,000	(\$9,400,000)	\$65,100,000	\$55,300,000	(\$9,800,000)	\$79,400,000	\$72,300,000	(\$7,100,000)

NOTES:

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- 2 Proposed plan represents the benefit provisions *after* Pension Reform using actuarial assumptions and methods described on Slides 15-16.

Appendices

2011 Pension Reform Projections (Fire)

	Fiscal Year 2012			Fiscal Year 2023			Fiscal Year 2028		
	Current Plan	Proposed Plan	Change	Current Plan	Proposed Plan	Change	Current Plan	Proposed Plan	Change
1. Present Value of Benefits	\$823,200,000	\$823,200,000	\$0	\$1,125,900,000	\$1,061,700,000	(\$64,200,000)	\$1,237,000,000	\$1,120,400,000	(\$116,600,000)
2. Actuarial Accrued Liability	\$757,000,000	\$798,500,000	\$41,500,000	\$1,030,400,000	\$1,027,100,000	(\$3,300,000)	\$1,126,900,000	\$1,080,500,000	(\$46,400,000)
3. Actuarial Value of Assets	\$443,400,000	\$443,400,000	\$0	\$716,700,000	\$667,500,000	(\$49,200,000)	\$825,400,000	\$730,100,000	(\$95,300,000)
4. Unfunded Actuarial Accrued Liability (2 – 3)	\$313,600,000	\$355,100,000	\$41,500,000	\$313,700,000	\$359,600,000	\$45,900,000	\$301,500,000	\$350,400,000	\$48,900,000
5. Funded Percentage (3 ÷ 2)	58.6%	55.5%	-3.0%	69.6%	65.0%	-4.6%	73.2%	67.6%	-5.6%
6. Gross Normal Cost	\$8,700,000	\$3,400,000	(\$5,300,000)	\$10,800,000	\$4,100,000	(\$6,700,000)	\$12,100,000	\$4,600,000	(\$7,500,000)
7. Expected Employee Contributions	(\$3,500,000)	(\$4,500,000)	(\$1,000,000)	(\$4,000,000)	(\$5,200,000)	(\$1,200,000)	(\$4,500,000)	(\$5,400,000)	(\$900,000)
8. Employer Normal Cost (6 + 7)	\$5,200,000	(\$1,100,000)	(\$6,300,000)	\$6,800,000	(\$1,100,000)	(\$7,900,000)	\$7,600,000	(\$800,000)	(\$8,400,000)
9. Amortization Payment on Unfunded	\$16,700,000	\$18,900,000	\$2,200,000	\$22,300,000	\$25,500,000	\$3,200,000	\$26,800,000	\$31,200,000	\$4,400,000
10. Interest & Timing	\$1,800,000	\$1,500,000	(\$300,000)	\$2,300,000	\$2,000,000	(\$300,000)	\$2,800,000	\$2,400,000	(\$400,000)
11. Total Defined Benefit (DB) Plan Cost (8 + 9 + 10)	\$23,700,000	\$19,300,000	(\$4,400,000)	\$31,400,000	\$26,400,000	(\$5,000,000)	\$37,200,000	\$32,800,000	(\$4,400,000)
12. Projected Payroll	\$44,800,000	\$44,800,000	N/A	\$53,800,000	\$53,800,000	N/A	\$61,100,000	\$61,100,000	N/A
13. DB Cost as a % of Payroll (11 ÷ 12)	52.9%	43.1%	-9.8%	58.4%	49.1%	-9.3%	60.9%	53.7%	-7.2%
14. Defined Contribution (DC) Plan Cost	\$0	\$0	\$0	\$0	\$1,000,000	\$1,000,000	\$0	\$1,600,000	\$1,600,000
15. DC Cost as a % of Payroll (14 ÷ 12)	0.0%	0.0%	0.0%	0.0%	1.9%	1.9%	0.0%	2.6%	2.6%
16. Total Retirement Plan Cost (11 + 14)	\$23,700,000	\$19,300,000	(\$4,400,000)	\$31,400,000	\$27,400,000	(\$4,000,000)	\$37,200,000	\$34,400,000	(\$2,800,000)

NOTES:

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Appendices

2011 Pension Reform Projections (Police)

	Fiscal Year 2012			Fiscal Year 2023			Fiscal Year 2028		
	Current Plan	Proposed Plan	Change	Current Plan	Proposed Plan	Change	Current Plan	Proposed Plan	Change
1. Present Value of Benefits	\$1,244,800,000	\$1,244,800,000	\$0	\$1,899,600,000	\$1,804,800,000	(\$94,800,000)	\$2,190,900,000	\$2,003,600,000	(\$187,300,000)
2. Actuarial Accrued Liability	\$1,108,100,000	\$1,193,800,000	\$85,700,000	\$1,737,500,000	\$1,746,200,000	\$8,700,000	\$2,000,400,000	\$1,936,700,000	(\$63,700,000)
3. Actuarial Value of Assets	\$634,600,000	\$634,600,000	\$0	\$1,209,900,000	\$1,123,700,000	(\$86,200,000)	\$1,490,100,000	\$1,326,100,000	(\$164,000,000)
4. Unfunded Actuarial Accrued Liability (2 - 3)	\$473,500,000	\$559,200,000	\$85,700,000	\$527,600,000	\$622,500,000	\$94,900,000	\$510,300,000	\$610,600,000	\$100,300,000
5. Funded Percentage [(3) ÷ (2)]	57.3%	53.2%	-4.1%	69.6%	64.4%	-5.2%	74.5%	68.5%	-6.0%
6. Gross Normal Cost	\$15,700,000	\$6,200,000	(\$9,500,000)	\$19,500,000	\$7,500,000	(\$12,000,000)	\$22,100,000	\$8,300,000	(\$13,800,000)
7. Expected Employee Contributions	(\$6,400,000)	(\$9,100,000)	(\$2,700,000)	(\$8,000,000)	(\$11,200,000)	(\$3,200,000)	(\$9,000,000)	(\$11,400,000)	(\$2,400,000)
8. Employer Normal Cost (6 + 7)	\$9,300,000	(\$2,900,000)	(\$12,200,000)	\$11,500,000	(\$3,700,000)	(\$15,200,000)	\$13,100,000	(\$3,100,000)	(\$16,200,000)
9. Amortization Payment on Unfunded	\$25,200,000	\$29,700,000	\$4,500,000	\$37,500,000	\$44,200,000	\$6,700,000	\$45,400,000	\$54,300,000	\$8,900,000
10. Interest & Timing	\$2,700,000	\$2,100,000	(\$600,000)	\$3,900,000	\$3,200,000	(\$700,000)	\$4,700,000	\$4,200,000	(\$500,000)
11. Total Defined Benefit (DB) Plan Cost (8 + 9 + 10)	\$37,200,000	\$28,900,000	(\$8,300,000)	\$52,900,000	\$43,700,000	(\$9,200,000)	\$63,200,000	\$55,400,000	(\$7,800,000)
12. Projected Payroll	\$89,600,000	\$89,600,000	N/A	\$109,500,000	\$109,500,000	N/A	\$123,000,000	\$123,000,000	N/A
13. DB Cost as a % of Payroll (11 ÷ 12)	41.5%	32.3%	-9.3%	48.3%	39.9%	-8.4%	51.4%	45.0%	-6.4%
14. Defined Contribution (DC) Plan Cost	\$0	\$0	\$0	\$0	\$1,700,000	\$1,700,000	\$0	\$2,800,000	\$2,800,000
15. DC Cost as a % of Payroll (14 ÷ 12)	0.0%	0.0%	0.0%	0.0%	1.6%	1.6%	0.0%	2.3%	2.3%
16. Total Retirement Plan Cost (11 + 14)	\$37,200,000	\$28,900,000	(\$8,300,000)	\$52,900,000	\$45,400,000	(\$7,500,000)	\$63,200,000	\$58,200,000	(\$5,000,000)

NOTES:

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