

CITY OF ATLANTA
POLICE OFFICERS' PENSION FUND

ACTUARIAL VALUATION
AS OF JULY 1, 2016

DETERMINES THE CONTRIBUTION
FOR THE 2017/18 FISCAL YEAR



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September 21, 2016

Introduction

This report presents the results of the July 1, 2016 actuarial valuation of the City of Atlanta Police Officers' Pension Fund. This valuation is based upon the participant data provided as of July 1, 2016 by the plan administrator and asset information provided as of June 30, 2016 by the City. Except for a cursory review for reasonableness, we have not attempted to verify the accuracy of this information.

The primary purpose of this report is to provide a summary of the funded status of the plan as of July 1, 2016 and to determine the minimum required contribution under Georgia Code Section 47-20-10 for the City's 2017/18 fiscal year. In addition, this report provides a projection of the long-term funding requirements of the plan, statistical information concerning the assets held in the trust, statistical information concerning the participant population, and a summary of any recent plan changes.

The liabilities and cost presented in this report are based on numerous assumptions concerning the cost of benefits to be provided in the future, long-term investment returns, and the future demographic experience of the current participants. Anyone referring to this report should remember that the cost developed herein is only an *estimate* of the true cost of providing post-employment pension benefits. No one can predict with certainty whether the true cost will be higher or lower than the cost presented in this report. The calculated cost is entirely dependent upon the assumptions that are described in Table IV-A. If any of the assumptions is changed, then the cost shown in this report will change accordingly. Likewise, if any of the assumptions is not completely realized, then the cost shown in this report will change in the future.

Certain assumptions play a bigger role than others in determining the cost of the post-employment pension benefits. In some cases, relatively small changes in a particular assumption can have a dramatic impact on the anticipated cost of benefits. Although a thorough analysis of the impact of such changes is beyond the scope of this report, Table I-B illustrates the impact that alternative long-term investment returns would have on the minimum required contribution rate.

Minimum Required Contribution

Table I-A shows the development of the minimum required contribution for the City's 2017/18 fiscal year. The minimum required contribution rate is 34.72% of covered payroll, which represents an increase of 6.28% of payroll from the prior valuation.

Table I-C provides a breakdown of the sources of change in the contribution rate. Significantly, the rate increased by 5.77% of payroll due to investment losses and increased by another 0.51% of payroll due to demographic experience. The market value of assets lost 1.03% during the 2015/16 plan year, whereas a 7.50% annual investment return was required to maintain a stable contribution rate.



Georgia Code Section 47-20-10 sets forth many of the rules concerning the minimum required contribution for public pension plans within the state. In addition, Georgia Code Section 47-20-13 exempts public plan sponsors from the minimum funding requirements if the plan's actuarial value of assets exceeds 150% of the present value of accumulated retirement system benefits.

Based on the current assets, participant data, and actuarial assumptions and methods that are used to value the plan, the present-day value of the total long-term funding requirement is \$1,450,425,077. As illustrated in Table I-A, current assets are sufficient to cover \$950,415,000 of this amount, the employer's expected contribution for the 2016/17 plan year will cover \$26,919,363 of this amount, the employer's expected contribution for the 2017/18 plan year will cover \$34,176,199 of this amount, and future employee contributions will cover \$81,040,801 of this amount, leaving \$357,873,714 to be covered by future employer funding. Again, demographic and investment experience that differs from that assumed will either increase or decrease the future employer funding requirement.

Contents of the Report

Tables I-D through I-G provide a detailed breakdown of various liability amounts by type of benefit and by participant group. Tables II-A through II-F provide information concerning the assets of the trust fund. Specifically, Table II-A shows the development of the actuarial value of assets, which is based on the market value. Tables III-A through III-F provide statistical information concerning the plan's participant population. In particular, Table III-F gives a 10-year projection of the cash that is expected to be required from the trust fund in order to pay benefits to the current group of participants. Finally, Tables IV-A through V-B provide a summary of the actuarial assumptions and methods that are used to value the plan's benefits and of the relevant plan provisions as of July 1, 2016, as well as a summary of the changes that have occurred since the previous valuation report was prepared.

Certification

This actuarial valuation was prepared by me or under my direct supervision and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate and, in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Georgia Code Section 47-20-10. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material change in plan costs or required contribution rates have been taken into account in the valuation.



For the firm,



Charles T. Carr
Consulting Actuary
Southern Actuarial Services Company, Inc.

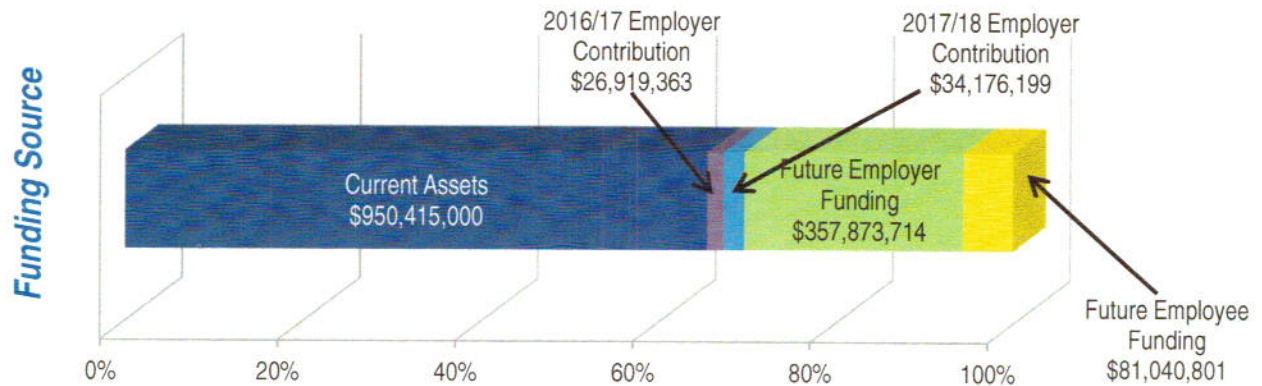
Enrolled Actuary No. 14-04927

The individual above is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



Minimum Required Contribution

Table I-A



For the 2017/18 Fiscal Year

Entry Age Normal Cost for the 2016/17 Plan Year	\$21,968,370
Unfunded Liability Amortization Payment for the 2016/17 Plan Year	\$20,232,144
Expense Allowance for the 2016/17 Plan Year	\$709,899
Expected Employee Contribution for the 2016/17 Plan Year	(\$10,478,107)
Adjustment to Reflect Semi-Monthly Employer Contributions	\$1,237,602
	<u>\$33,669,908</u>
Expected Employer Contribution for the 2016/17 Plan Year	(\$26,919,363)
Remaining Contribution Due/(Credit) for the 2016/17 Plan Year	\$6,750,545
	<u>x 0.075</u>
One Year's Interest Charge/(Credit) on the Remaining Contribution	\$506,291
Preliminary Employer Contribution for the 2017/18 Fiscal Year	\$34,176,199
Expected Payroll for the 2017/18 Fiscal Year	<u>÷ \$98,439,303</u>

Minimum Required Contribution Rate **34.72%**

(The actual contribution should be based on the minimum required contribution rate multiplied by the actual payroll for the fiscal year.)

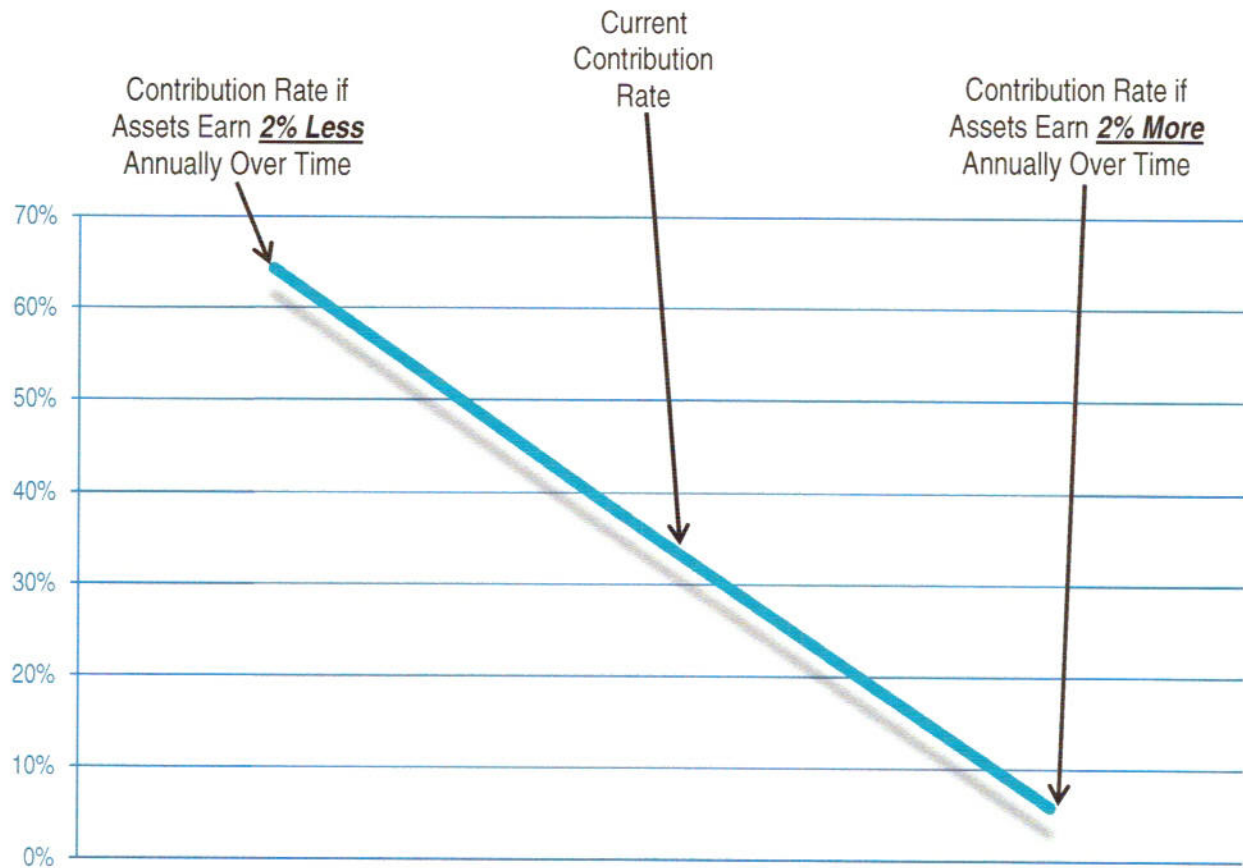
Additional Disclosures

Present Value of Future Compensation	\$731,913,576
Present Value of Future Employer Contributions	\$418,969,276
Present Value of Future Employee Contributions	\$81,040,801



Sensitivity Analysis

Table I-B



The line above illustrates the sensitivity of the contribution rate to changes in the long-term investment return.



Gain and Loss Analysis

Table I-C

Source of Change in the Contribution Rate

Previous minimum required contribution rate	28.44%
Increase (decrease) due to investment gains and losses	5.77%
Increase (decrease) due to demographic experience	0.51%
Increase (decrease) due to plan amendments	0.00%
Increase (decrease) due to actuarial assumption changes	0.00%
Increase (decrease) due to actuarial method changes	0.00%
Current minimum required contribution rate	<u>34.72%</u>

Source of Change in the Unfunded Liability

Previous unfunded liability	\$264,072,987
Increase due to interest	\$19,805,474
Decrease due to amortization payments	(\$14,898,383)
Increase (decrease) due to plan experience	\$80,789,225
Increase (decrease) due to plan amendments	\$0
Increase (decrease) due to actuarial assumption changes	\$0
Increase (decrease) due to actuarial method changes	\$0
Current unfunded liability	<u>\$349,769,303</u>



Present Value of Future Benefits

Table I-D

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<u>Actively Employed Participants</u>			
Retirement benefits	\$551,327,915	\$551,327,915	\$551,327,915
Termination benefits	\$26,074,949	\$26,074,949	\$26,074,949
Disability benefits	\$26,182,963	\$26,182,963	\$26,182,963
Death benefits	\$8,283,951	\$8,283,951	\$8,283,951
Refund of employee contributions	\$1,290,988	\$1,290,988	\$1,290,988
Sub-total	\$613,160,766	\$613,160,766	\$613,160,766
<u>Deferred Vested Participants</u>			
Retirement benefits	\$603,871	\$603,871	\$603,871
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$603,871	\$603,871	\$603,871
<u>Due a Refund of Contributions</u>	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
<u>Retired Participants</u>			
Service retirements	\$721,657,808	\$721,657,808	\$721,657,808
Disability retirements	\$54,888,462	\$54,888,462	\$54,888,462
Beneficiaries receiving	\$54,624,818	\$54,624,818	\$54,624,818
DROP participants	\$0	\$0	\$0
Sub-total	\$831,171,088	\$831,171,088	\$831,171,088
<u>Grand Total</u>	<u>\$1,444,935,725</u>	<u>\$1,444,935,725</u>	<u>\$1,444,935,725</u>



Present Value of Accrued Benefits

Table I-E

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<u>Actively Employed Participants</u>			
Retirement benefits	\$316,814,291	\$316,814,291	\$316,814,291
Termination benefits	\$14,895,251	\$14,895,251	\$14,895,251
Disability benefits	\$19,215,335	\$19,215,335	\$19,215,335
Death benefits	\$5,232,873	\$5,232,873	\$5,232,873
Refund of employee contributions	\$843,890	\$843,890	\$843,890
Sub-total	\$357,001,640	\$357,001,640	\$357,001,640
<u>Deferred Vested Participants</u>			
Retirement benefits	\$603,871	\$603,871	\$603,871
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$603,871	\$603,871	\$603,871
<u>Due a Refund of Contributions</u>	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
<u>Retired Participants</u>			
Service retirements	\$721,657,808	\$721,657,808	\$721,657,808
Disability retirements	\$54,888,462	\$54,888,462	\$54,888,462
Beneficiaries receiving	\$54,624,818	\$54,624,818	\$54,624,818
DROP participants	\$0	\$0	\$0
Sub-total	\$831,171,088	\$831,171,088	\$831,171,088
<u>Grand Total</u>	<u>\$1,188,776,599</u>	<u>\$1,188,776,599</u>	<u>\$1,188,776,599</u>
<u>Funded Percentage</u>	79.95%	79.95%	79.95%



Present Value of Vested Benefits

Table I-F

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<u>Actively Employed Participants</u>			
Retirement benefits	\$289,271,019	\$289,271,019	\$289,271,019
Termination benefits	\$13,250,904	\$13,250,904	\$13,250,904
Disability benefits	\$19,215,335	\$19,215,335	\$19,215,335
Death benefits	\$5,183,702	\$5,183,702	\$5,183,702
Refund of employee contributions	\$2,396,498	\$2,396,498	\$2,396,498
Sub-total	\$329,317,458	\$329,317,458	\$329,317,458
<u>Deferred Vested Participants</u>			
Retirement benefits	\$603,871	\$603,871	\$603,871
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$603,871	\$603,871	\$603,871
<u>Due a Refund of Contributions</u>	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
<u>Retired Participants</u>			
Service retirements	\$721,657,808	\$721,657,808	\$721,657,808
Disability retirements	\$54,888,462	\$54,888,462	\$54,888,462
Beneficiaries receiving	\$54,624,818	\$54,624,818	\$54,624,818
DROP participants	\$0	\$0	\$0
Sub-total	\$831,171,088	\$831,171,088	\$831,171,088
<u>Grand Total</u>	<u>\$1,161,092,417</u>	<u>\$1,161,092,417</u>	<u>\$1,161,092,417</u>



Entry Age Normal Accrued Liability

Table I-G

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<u>Actively Employed Participants</u>			
Retirement benefits	\$424,743,872	\$424,743,872	\$424,743,872
Termination benefits	\$18,649,785	\$18,649,785	\$18,649,785
Disability benefits	\$18,042,258	\$18,042,258	\$18,042,258
Death benefits	\$6,119,621	\$6,119,621	\$6,119,621
Refund of employee contributions	\$853,808	\$853,808	\$853,808
Sub-total	\$468,409,344	\$468,409,344	\$468,409,344
<u>Deferred Vested Participants</u>			
Retirement benefits	\$603,871	\$603,871	\$603,871
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$603,871	\$603,871	\$603,871
<u>Due a Refund of Contributions</u>	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
<u>Retired Participants</u>			
Service retirements	\$721,657,808	\$721,657,808	\$721,657,808
Disability retirements	\$54,888,462	\$54,888,462	\$54,888,462
Beneficiaries receiving	\$54,624,818	\$54,624,818	\$54,624,818
DROP participants	\$0	\$0	\$0
Sub-total	\$831,171,088	\$831,171,088	\$831,171,088
<u>Grand Total</u>	<u>\$1,300,184,303</u>	<u>\$1,300,184,303</u>	<u>\$1,300,184,303</u>
less Actuarial Value of Assets	(\$950,415,000)	(\$950,415,000)	(\$950,415,000)
<u>Unfunded Accrued Liability</u>	<u>\$349,769,303</u>	<u>\$349,769,303</u>	<u>\$349,769,303</u>



Entry Age Normal Cost

Table I-H

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<u>Actively Employed Participants</u>			
Retirement benefits	\$18,063,198	\$18,063,198	\$18,063,198
Termination benefits	\$1,547,169	\$1,547,169	\$1,547,169
Disability benefits	\$1,740,023	\$1,740,023	\$1,740,023
Death benefits	\$365,408	\$365,408	\$365,408
Refund of employee contributions	\$252,572	\$252,572	\$252,572
Sub-total	\$21,968,370	\$21,968,370	\$21,968,370
<u>Deferred Vested Participants</u>			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
<u>Due a Refund of Contributions</u>	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
<u>Retired Participants</u>			
Service retirements	\$0	\$0	\$0
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
<u>Grand Total</u>	<u>\$21,968,370</u>	<u>\$21,968,370</u>	<u>\$21,968,370</u>



CITY OF ATLANTA
POLICE OFFICERS' PENSION FUND

ACTUARIAL VALUATION
AS OF JULY 1, 2015

GASB 67/68 SUPPLEMENT
AS OF JUNE 30, 2016



DISCLOSURES RELATED TO THE POLICE OFFICERS' PENSION PLAN

NET PENSION LIABILITY AS OF JUNE 30, 2016

Total pension liability	\$1,317,840,021 *
Less fiduciary net position	(950,415,000)
Net pension liability	<u>\$367,425,021 **</u>

* This amount has been rolled forward from July 1, 2015.

** This amount is recognized on the employer's balance sheet.

PENSION EXPENSE FOR THE 2015/16 FISCAL YEAR

Service cost	\$21,572,685
Other recognized changes in net pension liability:	
Expected interest growth	23,403,248
Investment gain/loss	6,861,794
Demographic gain/loss	(2,879,892)
Employee contributions	(11,825,000)
Administrative expenses	429,000
Changes in benefit terms	0
Assumption changes	1,206,955
Pension expense	<u>\$38,768,790 *</u>

* This amount is recognized on the employer's income statement, along with the employer contribution for the 2015/16 fiscal year.

DEFERRED INFLOW AND OUTFLOW OF RESOURCES

	Deferred Outflows Of Resources	Deferred Inflows Of Resources
Balance as of June 30, 2015	\$91,932,584	\$96,498,625
Change due to:		
Amortization payments	\$(33,685,706)	\$(28,496,849)
Investment gain/loss	\$82,016,415	\$0
Demographic gain/loss	\$0	\$34,252,674
Assumption changes	\$0	\$0
Total change	\$48,330,709	\$5,755,825
Balance as of June 30, 2016	\$140,263,293 *	\$102,254,450 *

* These amounts are recognized on the employer's balance sheet.

BALANCE EQUATION

Net pension liability as of June 30, 2015	\$311,522,347
Plus pension expense for the 2015/16 fiscal year	\$38,768,790
Minus employer contribution for the 2015/16 fiscal year	\$(25,441,000)
Plus change in balance of deferred outflows of resources	\$48,330,709
Minus change in balance of deferred inflows of resources	\$(5,755,825)
Net pension liability as of June 30, 2016	\$367,425,021

DISCLOSURES RELATED TO THE POLICE OFFICERS' PENSION PLAN (continued)

DEFERRED INFLOW AND OUTFLOW OF RESOURCES (continued)

Amortization schedule for deferred outflows and inflows of resources:

	Deferred Outflows Of Resources	Deferred Inflows Of Resources
Balance as of June 30, 2016	\$140,263,293	\$102,254,450
Amount recognized in the 2016/17 pension expense:		
<i>Investment gain/loss</i>	\$29,196,947	\$22,335,153
<i>Demographic gain/loss</i>	\$3,281,804	\$6,161,696
<i>Assumption changes</i>	<u>\$1,206,955</u>	<u>\$0</u>
<i>Total</i>	\$33,685,706	\$28,496,849
Balance as of June 30, 2017	\$106,577,587	\$73,757,601
Amount recognized in the 2017/18 pension expense:		
<i>Investment gain/loss</i>	\$29,196,947	\$22,335,155
<i>Demographic gain/loss</i>	\$3,281,804	\$6,161,696
<i>Assumption changes</i>	<u>\$1,206,955</u>	<u>\$0</u>
<i>Total</i>	\$33,685,706	\$28,496,851
Balance as of June 30, 2018	\$72,891,881	\$45,260,750
Amount recognized in the 2018/19 pension expense:		
<i>Investment gain/loss</i>	\$29,196,947	\$0
<i>Demographic gain/loss</i>	\$3,281,804	\$6,161,696
<i>Assumption changes</i>	<u>\$1,206,955</u>	<u>\$0</u>
<i>Total</i>	\$33,685,706	\$6,161,696
Balance as of June 30, 2019	\$39,206,175	\$39,099,054
Amount recognized in the 2019/20 pension expense:		
<i>Investment gain/loss</i>	\$16,403,283	\$0
<i>Demographic gain/loss</i>	\$3,281,804	\$6,161,696
<i>Assumption changes</i>	<u>\$1,206,955</u>	<u>\$0</u>
<i>Total</i>	\$20,892,042	\$6,161,696
Balance as of June 30, 2020	\$18,314,133	\$32,937,358
Amount recognized in the 2020/21 pension expense:		
<i>Investment gain/loss</i>	\$0	\$0
<i>Demographic gain/loss</i>	\$3,281,804	\$6,161,696
<i>Assumption changes</i>	<u>\$1,206,955</u>	<u>\$0</u>
<i>Total</i>	\$4,488,759	\$6,161,696
Balance as of June 30, 2021	\$13,825,374	\$26,775,662

DISCLOSURES RELATED TO THE POLICE OFFICERS' PENSION PLAN (continued)

CHANGES IN THE NET PENSION LIABILITY

	Total Pension Liability	Fiduciary Net Position	Net Pension Liability
Balance as of June 30, 2015	\$1,294,907,347	\$(983,385,000)	\$311,522,347
Change due to:			
<i>Service cost</i>	\$21,572,685	\$0	\$21,572,685
<i>Expected interest growth</i>	\$95,435,663	\$(72,032,415)	\$23,403,248
<i>Unexpected investment income</i>	\$0	\$82,016,415	\$82,016,415
<i>Demographic experience</i>	\$(34,252,674)	\$0	\$(34,252,674)
<i>Employer contributions</i>	\$0	\$(25,441,000)	\$(25,441,000)
<i>Employee contributions</i>	\$0	\$(11,825,000)	\$(11,825,000)
<i>Benefit payments & refunds</i>	\$(59,823,000)	\$59,823,000	\$0
<i>Administrative expenses</i>	\$0	\$429,000	\$429,000
<i>Changes in benefit terms</i>	\$0	\$0	\$0
<i>Assumption changes</i>	\$0	\$0	\$0
Balance as of June 30, 2016	\$1,317,840,021	\$(950,415,000)	\$367,425,021

COMPARISON OF NET PENSION LIABILITY USING ALTERNATIVE DISCOUNT RATES

	Discount Rate Minus 1.00%	7.41% Discount Rate	Discount Rate Plus 1.00%
Total pension liability	\$1,497,648,165	\$1,317,840,021	\$1,171,129,834
Less fiduciary net position	<u>(950,415,000)</u>	<u>(950,415,000)</u>	<u>(950,415,000)</u>
Net pension liability	\$547,233,165	\$367,425,021	\$220,714,834

HISTORICAL TREND INFORMATION

Measurement Date	Total Pension Liability	Fiduciary Net Position	Net Pension Liability	Funded Percentage	Covered Payroll	Net Pension Liability as a % of Covered Payroll
June 30, 2016	\$1,317,840,021	\$950,415,000	\$367,425,021	72.12%	\$92,964,978	395.23%
June 30, 2015	\$1,294,907,347	\$983,385,000	\$311,522,347	75.94%	\$93,836,338	331.98%
June 30, 2014	\$1,270,493,965	\$987,507,000	\$282,986,965	77.73%	\$91,840,000	308.13%
June 30, 2013	\$1,158,630,982	\$828,815,000	\$329,815,982	71.53%	\$88,296,903	373.53%
July 1, 2012	\$1,059,361,784	\$733,546,000	\$325,815,784	69.24%	\$88,296,903	369.00%
July 1, 2011	\$1,036,001,393	\$735,470,000	\$300,531,393	70.99%	\$73,688,100	407.84%
January 1, 2011	\$1,056,240,007	\$697,667,506	\$358,572,501	66.05%	\$83,550,807	429.17%
January 1, 2010	\$990,600,036	\$591,980,609	\$398,619,427	59.76%	\$78,519,495	507.67%
January 1, 2009	\$986,376,000	\$571,768,000	\$414,608,000	57.97%	\$82,030,000	505.43%
January 1, 2008	\$909,410,000	\$596,457,000	\$312,953,000	65.59%	\$84,016,000	372.49%
January 1, 2007	\$850,886,000	\$512,259,000	\$338,627,000	60.20%	\$77,168,000	438.82%

DISCLOSURES RELATED TO THE PENSION PLAN (continued)

HISTORICAL TREND INFORMATION (continued)

Changes in the net pension liability by source

Fiscal Year	Service Cost	Expected Interest Growth	Unexpected Investment Income	Demographic Experience	Employer Contributions	Employee Contributions	Benefit Payments & Refunds	Administrative Expenses	Changes In Benefit Terms	Assumption Changes
2015/16	\$21,572,685	\$23,403,248	\$82,016,415	\$(34,252,674)	\$(25,441,000)	\$(11,825,000)	\$0	\$429,000	\$0	\$0
2014/15	\$22,386,890	\$18,619,235	\$63,968,320	\$(32,549,450)	\$(32,693,000)	\$(11,224,000)	\$(496,613)	\$524,000	\$0	\$0
2013/14	\$23,755,271	\$28,481,665	\$(111,675,767)	\$36,362,384	\$(26,525,000)	\$(11,157,000)	\$229,368	\$327,000	\$0	\$13,373,062

NOTE: The amortization period for demographic experience and assumption changes was 11.08 years for the 2013/14 fiscal year, 10.65 years for the 2014/15 fiscal year, and 11.03 years for the 2015/16 fiscal year.

DISCLOSURES RELATED TO THE POLICE OFFICERS' PENSION PLAN (continued)

HISTORICAL TREND INFORMATION (continued)

Fiscal Year End	(1) Actuarially Determined Contribution	(2) Contributions Recognized By the Plan	(3) Difference Between (1) and (2)	Covered Payroll	Column (3) as a % of Covered Payroll
June 30, 2016	\$25,441,000	\$25,441,000	\$0	\$92,964,978	0.00%
June 30, 2015	\$32,693,000	\$32,693,000	\$0	\$93,836,338	0.00%
June 30, 2014	\$30,197,000	\$30,197,000	\$0	\$91,840,000	0.00%
June 30, 2013	\$26,525,000	\$26,525,000	\$0	\$88,296,903	0.00%
June 30, 2012	\$33,748,000	\$33,748,000	\$0	\$73,688,100	0.00%
June 30, 2011	\$19,567,500	\$19,567,500	\$0	\$83,550,807	0.00%
June 30, 2010	\$40,422,017	\$40,422,017	\$0	\$78,519,495	0.00%
June 30, 2009	\$41,213,384	\$41,213,384	\$0	\$82,030,000	0.00%
June 30, 2008	\$44,433,944	\$44,433,944	\$0	\$84,016,000	0.00%
June 30, 2007	\$45,229,000	\$45,229,000	\$0	\$77,168,000	0.00%

INFORMATION USED TO DETERMINE THE NET PENSION LIABILITY

Employer's reporting date: *June 30, 2017*

Measurement date: *June 30, 2016*

Actuarial valuation date: *July 1, 2015*

Actuarial assumptions

Discount rate: *7.41% per annum (2.25% per annum is attributable to long-term inflation); this rate was used to discount all future benefit payments.*

Salary increases: *4.00% per annum*

Cost-of-living increases: *1.00% per annum (employees hired after August 31, 2011) or 3.00% per annum (employees hired before September 1, 2011)*

Mortality basis: *Sex-distinct rates set forth in the RP-2000 Mortality Table for annuitants, projected to 2015 by Scale AA, as published by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 430; future generational improvements in mortality have not been reflected.*

Retirement: *Retirement is assumed to occur at normal retirement age.*

Other decrements: *Employment termination is assumed based on an experience study covering the period 1982 through 1986; disability is assumed in accordance with the Wyatt 1985 Disability Study (Class 4).*

Non-investment expenses: *0.75% of future payroll*

Future contributions: *Contributions from the employer and employees are assumed to be made as legally required; employer contributions are assumed to equal 28.44% of pensionable earnings.*

Changes: *No assumptions were changed since the last measurement date.*

DETERMINATION OF THE LONG-TERM EXPECTED RATE OF RETURN ON PLAN ASSETS

Investment Category	Target Allocation	Expected Long-Term Real Return
Broad equity market	7.00%	6.01% per annum
Domestic large-cap equity	30.00%	6.91% per annum
Domestic mid-cap equity	15.00%	8.91% per annum
Domestic small-cap equity	9.00%	5.01% per annum
International equity	9.00%	3.31% per annum
Domestic fixed income	25.00%	0.81% per annum
Alternative investments	5.00%	7.51% per annum
Total or weighted arithmetic average	100.00%	5.16% per annum

DISCLOSURES RELATED TO THE POLICE OFFICERS' PENSION PLAN (continued)

PENSION PLAN DESCRIPTION

Name of the pension plan:	City of Atlanta Police Officers' Pension Fund
Legal plan administrator:	Board of Trustees of the City of Atlanta Police Officers' Pension Fund
Plan type:	Single-employer defined benefit pension plan
Number of covered individuals:	3,524 (1,446 inactive employees and beneficiaries currently receiving benefits; 55 inactive employees entitled to but not yet receiving benefits; 2,023 active employees)
Contribution requirement:	Employer contributions are actuarially determined; employees must contribute either 8% of base pay (hired after August 31, 2011), 12% of base pay (hired before September 1, 2011 without an eligible beneficiary) or 13% of base pay (hired before September 1, 2011 with an eligible beneficiary); contribution requirements may be amended by City ordinance, but employer contribution requirement is subject to State minimums.
Pension plan reporting:	The plan issues a stand-alone financial report each year, which contains information about the plan's fiduciary net position. The plan's fiduciary net position has been determined on the same basis used by the pension plan and is equal to the market value of assets calculated under the accrual basis of accounting. This report is available to the public at the plan's administrative office: Zenith American Solutions, 100 Crescent Centre Parkway, Suite 400, Tucker, GA 30084-7042, (770) 934-3953.

Description of the benefit terms

Employees covered:	Full-time police officers employed by the City of Atlanta
Types of benefits offered:	Retirement, disability, and pre-retirement death benefits
Basic pension formula:	1% of average earnings x up to 80 years of service (for employees hired after August 31, 2011) 2% of average earnings x up to 50 years of service (for employees hired during the period July 1, 2010 through August 31, 2011) 3% of average earnings x up to 26.667 years of service (for employees hired before July 1, 2010)
Early retirement adjustment:	Retirement benefit is reduced by ½% for each month by which the participant's early retirement age precedes his normal retirement age (for employees hired after August 31, 2011) Retirement benefit is reduced by ½% for each of the first 60 months and by ¼% for each additional month by which the participant's early retirement age precedes his normal retirement age (for employees hired before September 1, 2011)
Disability pension:	Basic pension formula * (for a non-service-connected disability with at least five years of service) Larger of 70% of top salary for the employee's grade and position or basic pension formula * (for a service-connected disability if the employee is not covered by the 1986 amendment) Larger of 50% of average earnings or basic pension formula ** (payable until normal retirement age for a service-connected disability if the employee is covered by the 1986 amendment) Basic pension formula including service credit for the period of disability (payable after normal retirement age for a service-connected disability if the employee is covered by the 1986 amendment) 100% of top salary for the employee's grade and position (for a catastrophic injury incurred in the line-of-duty) * Benefit is offset by worker's comp payments to the extent both payments exceed 100% of salary ** Benefit is offset by worker's comp payments to the extent both payments exceed 75% of salary
Pre-retirement death benefit:	75% of the basic pension formula (payable to the eligible beneficiary upon death not in the line-of-duty) 100% of base pay offset by worker's comp or other payments (payable to the eligible beneficiary for first two years after death in the line-of-duty) 75% of the larger of the basic pension formula or 70% of top salary for the employee's grade (payable to the eligible beneficiary beginning two years after death in the line-of-duty) 75% of the basic pension formula (payable to the eligible beneficiary beginning two years after death in the line-of-duty if the employee was covered by the 1986 amendment)
Normal retirement age:	Age 65 with at least five years of service Age 57 with at least 15 years of service Age 55 with at least 15 years of service (for employees hired before September 1, 2011) Age 55 with at least 10 years of service (for employees hired before July 1, 2010) Any age with at least 30 years of service (for employees covered by the 2005 amendment)
Early retirement age:	Age 47 with at least 15 years of service (for employees hired after August 31, 2011) Any age with at least 15 years of service (for employees hired during the period July 1, 2010 through August 31, 2011) Any age with at least 10 years of service (for employees hired before July 1, 2010)

DISCLOSURES RELATED TO THE POLICE OFFICERS' PENSION PLAN *(continued)*

PENSION PLAN DESCRIPTION *(continued)*

Description of the benefit terms *(continued)*

Vesting requirement:	25% vesting with five years of service, graded up to 100% vesting with 15 years of service (for employees hired after June 30, 2010) 25% vesting with five years of service, graded up to 100% vesting with 10 years of service (for employees hired before July 1, 2010)
Form of payment:	Single life annuity (for employees without an eligible beneficiary) 75% joint and contingent annuity (for employees with an eligible beneficiary; survivor annuity is only payable for life if the beneficiary is a spouse or domestic partner and, in the case of employees who are not covered by the 1986 amendment, the spouse or domestic partner does not re-marry; survivor annuity is actuarially adjusted if the employee was hired after August 31, 2011)
Average earnings:	Average of the highest 120 consecutive months of base pay plus a credit for unused vacation (for employees hired after August 31, 2011) Average of the highest 36 consecutive months of base pay plus a credit for unused sick leave and vacation (for employees hired before September 1, 2011)
Cost-of-living adjustment:	Based on the CPI limited to 1% per year (for employees hired after August 31, 2011) Based on the CPI limited to 3% per year (for employees hired before September 1, 2011)
Legal authority:	Plan was initially established under State law and has been amended numerous times by City ordinance.
Changes:	The benefit terms did not change from the prior measurement date.

DISCLOSURES RELATED TO THE POLICE OFFICERS' PENSION PLAN (continued)

PROJECTION OF THE FIDUCIARY NET POSITION

Date	BOY Balance	Contributions	Benefit Payments	Administrative Expenses	Investment Earnings	EOY Balance
July 1, 2015	\$983,385,000	\$37,266,000	\$59,823,000	\$429,000	-\$9,984,000	\$950,415,000
July 1, 2016	\$950,415,000	\$38,331,080	\$61,416,720	\$761,650	\$69,557,997	\$996,125,707
July 1, 2017	\$996,125,707	\$39,864,323	\$64,733,008	\$802,777	\$72,878,783	\$1,043,333,028
July 1, 2018	\$1,043,333,028	\$41,458,896	\$69,017,071	\$855,905	\$76,277,047	\$1,091,195,995
July 1, 2019	\$1,091,195,995	\$43,117,252	\$72,760,292	\$902,326	\$79,746,140	\$1,140,396,769
July 1, 2020	\$1,140,396,769	\$44,841,942	\$76,691,384	\$951,077	\$83,309,857	\$1,190,906,107
July 1, 2021	\$1,190,906,107	\$46,635,620	\$79,245,272	\$982,749	\$87,023,784	\$1,244,337,490
July 1, 2022	\$1,244,337,490	\$48,501,045	\$82,712,901	\$1,025,752	\$90,923,183	\$1,300,023,065
July 1, 2023	\$1,300,023,065	\$50,441,087	\$86,899,327	\$1,077,669	\$94,965,854	\$1,357,453,010
July 1, 2024	\$1,357,453,010	\$52,458,730	\$90,623,925	\$1,123,859	\$99,157,620	\$1,417,321,576
July 1, 2025	\$1,417,321,576	\$54,557,079	\$94,255,459	\$1,168,895	\$103,536,452	\$1,479,990,753
July 1, 2026	\$1,479,990,753	\$56,739,362	\$97,603,389	\$1,210,414	\$108,136,312	\$1,546,052,624
July 1, 2027	\$1,546,052,624	\$42,437,526	\$100,500,577	\$1,246,343	\$112,404,352	\$1,599,147,582
July 1, 2028	\$1,599,147,582	\$0	\$103,549,172	\$1,284,150	\$114,682,165	\$1,608,996,425
July 1, 2029	\$1,608,996,425	\$0	\$106,155,067	\$1,316,466	\$115,315,965	\$1,616,840,857
July 1, 2030	\$1,616,840,857	\$0	\$108,771,672	\$1,348,916	\$115,800,844	\$1,622,521,113
July 1, 2031	\$1,622,521,113	\$0	\$111,971,292	\$1,388,596	\$116,103,880	\$1,625,265,105
July 1, 2032	\$1,625,265,105	\$0	\$114,711,574	\$1,422,579	\$116,206,260	\$1,625,337,212
July 1, 2033	\$1,625,337,212	\$0	\$117,955,906	\$1,462,813	\$116,092,084	\$1,622,010,577
July 1, 2034	\$1,622,010,577	\$0	\$121,187,547	\$1,502,890	\$115,726,529	\$1,615,046,669
July 1, 2035	\$1,615,046,669	\$0	\$124,343,034	\$1,542,022	\$115,094,258	\$1,604,255,871
July 1, 2036	\$1,604,255,871	\$0	\$126,302,334	\$1,566,320	\$114,222,481	\$1,590,609,698
July 1, 2037	\$1,590,609,698	\$0	\$128,076,185	\$1,588,318	\$113,145,952	\$1,574,091,147
July 1, 2038	\$1,574,091,147	\$0	\$130,007,375	\$1,612,267	\$111,850,784	\$1,554,322,289
July 1, 2039	\$1,554,322,289	\$0	\$131,436,497	\$1,629,990	\$110,333,264	\$1,531,589,066
July 1, 2040	\$1,531,589,066	\$0	\$132,724,272	\$1,645,961	\$108,601,291	\$1,505,820,124
July 1, 2041	\$1,505,820,124	\$0	\$133,946,213	\$1,661,114	\$106,646,797	\$1,476,859,594
July 1, 2042	\$1,476,859,594	\$0	\$134,619,071	\$1,669,459	\$104,476,035	\$1,445,047,099
July 1, 2043	\$1,445,047,099	\$0	\$135,295,272	\$1,677,844	\$102,093,818	\$1,410,167,801
July 1, 2044	\$1,410,167,801	\$0	\$135,153,119	\$1,676,082	\$99,514,499	\$1,372,853,099
July 1, 2045	\$1,372,853,099	\$0	\$134,812,193	\$1,671,854	\$96,762,039	\$1,333,131,091
July 1, 2046	\$1,333,131,091	\$0	\$133,715,084	\$1,658,248	\$93,859,055	\$1,291,616,814
July 1, 2047	\$1,291,616,814	\$0	\$132,416,809	\$1,642,148	\$90,830,674	\$1,248,388,531
July 1, 2048	\$1,248,388,531	\$0	\$130,920,063	\$1,623,586	\$87,682,597	\$1,203,527,479
July 1, 2049	\$1,203,527,479	\$0	\$129,230,341	\$1,602,631	\$84,420,641	\$1,157,115,148
July 1, 2050	\$1,157,115,148	\$0	\$127,278,995	\$1,578,432	\$81,053,374	\$1,109,311,095
July 1, 2051	\$1,109,311,095	\$0	\$125,049,098	\$1,550,778	\$77,593,241	\$1,060,304,460
July 1, 2052	\$1,060,304,460	\$0	\$122,565,894	\$1,519,983	\$74,053,329	\$1,010,271,912
July 1, 2053	\$1,010,271,912	\$0	\$119,806,407	\$1,485,762	\$70,447,574	\$959,427,317
July 1, 2054	\$959,427,317	\$0	\$116,783,729	\$1,448,276	\$66,791,343	\$907,986,655
July 1, 2055	\$907,986,655	\$0	\$113,490,415	\$1,407,435	\$63,100,913	\$856,189,718
July 1, 2056	\$856,189,718	\$0	\$109,937,171	\$1,363,370	\$59,393,659	\$804,282,836
July 1, 2057	\$804,282,836	\$0	\$106,130,520	\$1,316,162	\$55,687,593	\$752,523,747
July 1, 2058	\$752,523,747	\$0	\$102,084,393	\$1,265,985	\$52,001,300	\$701,174,669
July 1, 2059	\$701,174,669	\$0	\$97,817,138	\$1,213,065	\$48,353,536	\$650,498,002
July 1, 2060	\$650,498,002	\$0	\$93,352,259	\$1,157,694	\$44,762,878	\$600,750,927
July 1, 2061	\$600,750,927	\$0	\$88,720,194	\$1,100,250	\$41,247,261	\$552,177,744
July 1, 2062	\$552,177,744	\$0	\$83,957,839	\$1,041,191	\$37,823,430	\$505,002,144
July 1, 2063	\$505,002,144	\$0	\$79,091,073	\$980,836	\$34,507,006	\$459,437,241
July 1, 2064	\$459,437,241	\$0	\$74,156,464	\$919,641	\$31,312,433	\$415,673,569
July 1, 2065	\$415,673,569	\$0	\$69,182,350	\$857,955	\$28,252,788	\$373,886,052
July 1, 2066	\$373,886,052	\$0	\$64,192,274	\$796,071	\$25,340,163	\$334,237,870
July 1, 2067	\$334,237,870	\$0	\$59,220,771	\$734,418	\$22,585,379	\$296,868,060

DISCLOSURES RELATED TO THE POLICE OFFICERS' PENSION PLAN (continued)

PROJECTION OF THE FIDUCIARY NET POSITION (continued)

Date	BOY Balance	Contributions	Benefit Payments	Administrative Expenses	Investment Earnings	EOY Balance
July 1, 2068	\$296,868,060	\$0	\$54,297,913	\$673,368	\$19,997,631	\$261,894,410
July 1, 2069	\$261,894,410	\$0	\$49,446,591	\$613,205	\$17,584,802	\$229,419,416
July 1, 2070	\$229,419,416	\$0	\$44,716,374	\$554,544	\$15,352,662	\$199,501,160
July 1, 2071	\$199,501,160	\$0	\$40,131,626	\$497,686	\$13,304,618	\$172,176,466
July 1, 2072	\$172,176,466	\$0	\$35,759,786	\$443,470	\$11,440,914	\$147,414,124
July 1, 2073	\$147,414,124	\$0	\$31,571,228	\$391,526	\$9,760,327	\$125,211,697
July 1, 2074	\$125,211,697	\$0	\$27,631,452	\$342,667	\$8,260,266	\$105,497,844
July 1, 2075	\$105,497,844	\$0	\$23,973,194	\$297,300	\$6,934,237	\$88,161,587
July 1, 2076	\$88,161,587	\$0	\$20,614,559	\$255,648	\$5,773,349	\$73,064,729
July 1, 2077	\$73,064,729	\$0	\$17,568,462	\$217,873	\$4,766,888	\$60,045,282
July 1, 2078	\$60,045,282	\$0	\$14,828,943	\$183,899	\$3,903,069	\$48,935,509
July 1, 2079	\$48,935,509	\$0	\$12,394,005	\$153,702	\$3,169,536	\$39,557,338
July 1, 2080	\$39,557,338	\$0	\$10,262,338	\$127,267	\$2,553,142	\$31,720,875
July 1, 2081	\$31,720,875	\$0	\$8,412,768	\$104,330	\$2,040,597	\$25,244,374
July 1, 2082	\$25,244,374	\$0	\$6,845,811	\$84,897	\$1,618,414	\$19,932,080
July 1, 2083	\$19,932,080	\$0	\$5,521,443	\$68,473	\$1,273,561	\$15,615,725
July 1, 2084	\$15,615,725	\$0	\$4,404,829	\$54,626	\$994,855	\$12,151,125
July 1, 2085	\$12,151,125	\$0	\$3,488,696	\$43,265	\$771,878	\$9,391,042
July 1, 2086	\$9,391,042	\$0	\$2,737,844	\$33,953	\$595,016	\$7,214,261
July 1, 2087	\$7,214,261	\$0	\$2,127,042	\$26,378	\$456,218	\$5,517,059
July 1, 2088	\$5,517,059	\$0	\$1,639,231	\$20,329	\$348,426	\$4,205,925
July 1, 2089	\$4,205,925	\$0	\$1,255,980	\$15,576	\$265,390	\$3,199,759
July 1, 2090	\$3,199,759	\$0	\$959,421	\$11,898	\$201,758	\$2,430,198
July 1, 2091	\$2,430,198	\$0	\$721,455	\$8,947	\$153,500	\$1,853,296
July 1, 2092	\$1,853,296	\$0	\$549,800	\$6,818	\$117,075	\$1,413,753
July 1, 2093	\$1,413,753	\$0	\$417,940	\$5,183	\$89,363	\$1,079,993
July 1, 2094	\$1,079,993	\$0	\$317,214	\$3,934	\$68,342	\$827,187
July 1, 2095	\$827,187	\$0	\$236,716	\$2,936	\$52,574	\$640,109
July 1, 2096	\$640,109	\$0	\$180,511	\$2,239	\$40,782	\$498,141
July 1, 2097	\$498,141	\$0	\$137,028	\$1,699	\$31,864	\$391,278
July 1, 2098	\$391,278	\$0	\$105,133	\$1,304	\$25,121	\$309,962
July 1, 2099	\$309,962	\$0	\$80,846	\$1,003	\$19,990	\$248,103
July 1, 2100	\$248,103	\$0	\$63,478	\$787	\$16,046	\$199,884
July 1, 2101	\$199,884	\$0	\$51,127	\$634	\$12,928	\$161,051
July 1, 2102	\$161,051	\$0	\$41,526	\$515	\$10,404	\$129,414
July 1, 2103	\$129,414	\$0	\$33,740	\$418	\$8,347	\$103,603
July 1, 2104	\$103,603	\$0	\$27,844	\$345	\$6,651	\$82,065
July 1, 2105	\$82,065	\$0	\$22,892	\$284	\$5,238	\$64,127
July 1, 2106	\$64,127	\$0	\$18,608	\$231	\$4,066	\$49,354
July 1, 2107	\$49,354	\$0	\$14,938	\$185	\$3,107	\$37,338
July 1, 2108	\$37,338	\$0	\$11,845	\$147	\$2,330	\$27,676
July 1, 2109	\$27,676	\$0	\$9,280	\$115	\$1,709	\$19,990
July 1, 2110	\$19,990	\$0	\$7,186	\$89	\$1,217	\$13,932
July 1, 2111	\$13,932	\$0	\$5,511	\$68	\$829	\$9,182
July 1, 2112	\$9,182	\$0	\$4,177	\$52	\$527	\$5,480
July 1, 2113	\$5,480	\$0	\$3,133	\$39	\$291	\$2,599
July 1, 2114	\$2,599	\$0	\$2,333	\$29	\$107	\$344

NOTES: The fiduciary net position is projected to be sufficient to cover all future benefit payments when due.
The plan requires only a 7.41% average investment return per year to avoid a crossover date.
The projection shown above does not reflect future new entrants into the pension plan.

Actuarial Value of Assets

Table II-A

Market Value of Assets as of July 1, 2016	\$950,415,000
Minus advance employer contributions	\$0
Actuarial Value of Assets as of July 1, 2016	<u>\$950,415,000</u>

Historical Actuarial Value of Assets

January 1, 2008	\$596,457,000
January 1, 2009	\$571,768,000
January 1, 2010	\$591,980,609
January 1, 2011	\$697,667,506
July 1, 2011	\$735,470,000
July 1, 2012	\$733,546,000
July 1, 2013	\$828,815,000
July 1, 2014	\$987,507,000
July 1, 2015	\$983,385,000
July 1, 2016	\$950,415,000

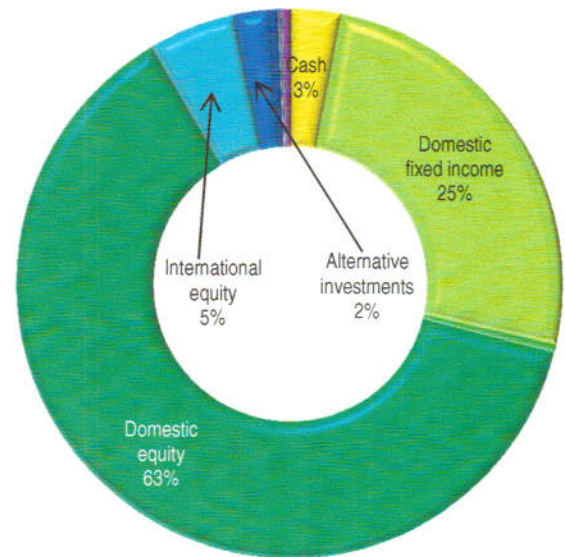


Market Value of Assets

Table II-B

As of July 1, 2016

Market Value of Assets	<u>\$950,415,000</u>
Cash	\$28,289,000
Domestic fixed income	\$244,386,000
International fixed income	\$4,403,000
Domestic equity	\$600,262,000
International equity	\$49,329,000
Alternative investments	\$20,316,000
Real estate	\$4,646,000
Income receivable	\$1,227,000
Employer contribution receivable	\$1,144,000
Employee contribution receivable	\$418,000
Net due to brokers	(\$3,891,000)
Net accounts payable	(\$114,000)

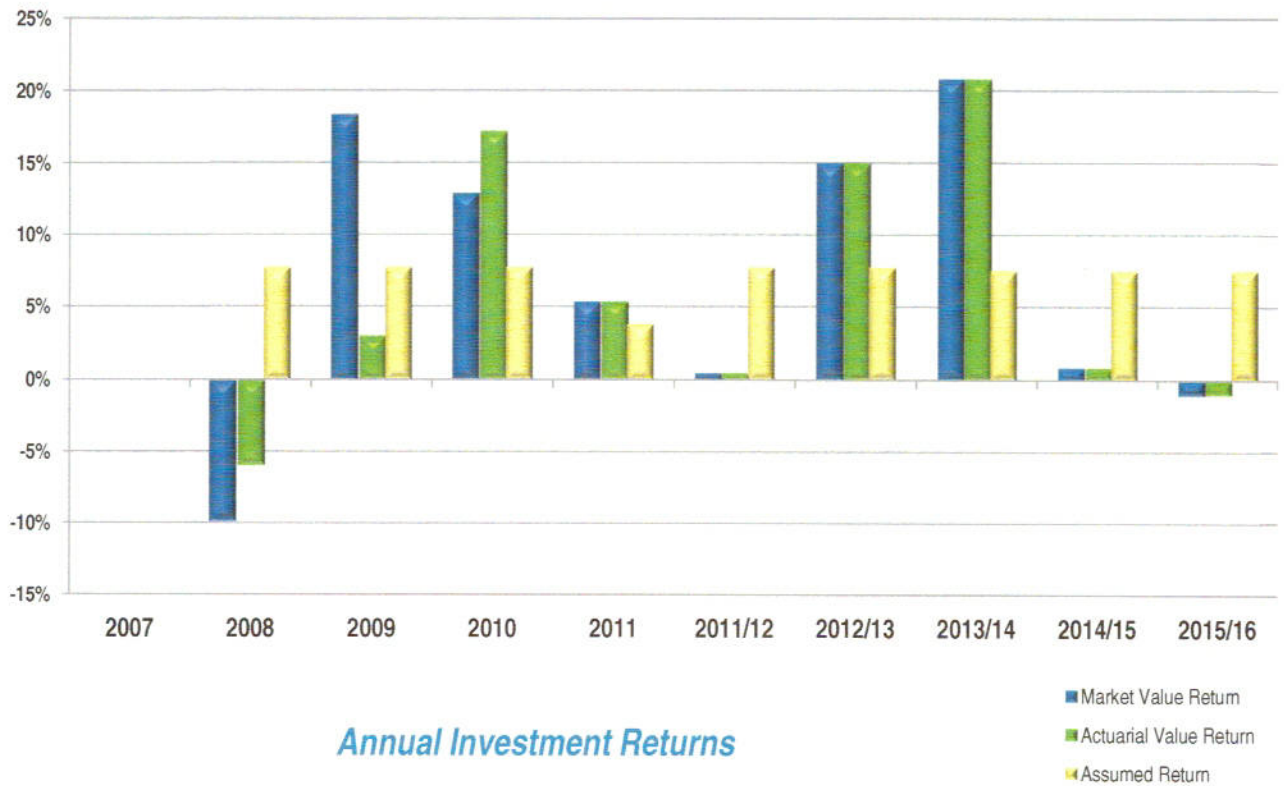
Historical Market Value of Assets

January 1, 2008	\$561,226,686
January 1, 2009	\$516,308,590
January 1, 2010	\$614,490,006
January 1, 2011	\$697,667,506
July 1, 2011	\$735,470,000
July 1, 2012	\$733,546,000
July 1, 2013	\$828,815,000
July 1, 2014	\$987,507,000
July 1, 2015	\$983,385,000
July 1, 2016	\$950,415,000



Investment Return

Table II-C



Plan Year	Market Value Return	Actuarial Value Return	Assumed Return
2007	N/A	N/A	N/A
2008	-9.85%	-5.92%	7.75%
2009	18.40%	3.02%	7.75%
2010	12.93%	17.21%	7.75%
2011	5.37%	5.37%	3.80%
2011/12	0.51%	0.51%	7.75%
2012/13	15.03%	15.03%	7.75%
2013/14	20.81%	20.81%	7.50%
2014/15	0.89%	0.89%	7.50%
2015/16	-1.03%	-1.03%	7.50%
8.5yr. Avg.	6.96%	6.21%	7.66%



Asset Reconciliation

Table II-D

	<u>Market Value</u>	<u>Actuarial Value</u>
As of July 1, 2015	\$983,385,000	\$983,385,000
<i>Increases Due To:</i>		
Employer Contributions	\$25,441,000	\$25,441,000
Employee Contributions	\$11,825,000	\$11,825,000
Total Contributions	<u>\$37,266,000</u>	<u>\$37,266,000</u>
Interest and Dividends	\$17,196,000	
Gains (Losses)	<u>(\$24,251,000)</u>	
Total Investment Income	<u>(\$7,055,000)</u>	<u>(\$9,984,000)</u>
Other Income	\$193,000	
Total Income	<u>\$30,404,000</u>	<u>\$27,282,000</u>
<i>Decreases Due To:</i>		
Benefit Payments	(\$59,823,000)	(\$59,823,000)
Total Benefit Payments	<u>(\$59,823,000)</u>	<u>(\$59,823,000)</u>
Investment Expenses	(\$3,122,000)	
Administrative Expenses	(\$429,000)	(\$429,000)
Advance Employer Contribution		\$0
Total Expenses	<u>(\$63,374,000)</u>	<u>(\$60,252,000)</u>
As of July 1, 2016	<u><u>\$950,415,000</u></u>	<u><u>\$950,415,000</u></u>



Historical Trust Fund Detail

Table II-E

Income

<u>Plan Year</u>	<u>Employer Contribs.</u>	<u>Employee Contribs.</u>	<u>Interest / Dividends</u>	<u>Gains / Losses</u>	<u>Other Income</u>
2007	N/A	N/A	N/A	N/A	N/A
2008	\$44,433,944	\$5,632,058	\$19,659,840	-\$73,068,655	\$306,310
2009	\$41,213,384	\$7,428,867	\$10,062,495	\$86,832,237	\$412,899
2010	\$40,422,017	\$6,522,505	\$10,973,135	\$71,141,601	\$110,624
2011	\$19,567,500	\$3,366,500	\$5,409,500	\$33,529,994	\$0
2011/12	\$33,748,000	\$9,541,000	\$13,407,000	-\$6,450,000	\$12,000
2012/13	\$26,525,000	\$11,157,000	\$15,319,000	\$96,713,000	\$0
2013/14	\$30,197,000	\$11,232,000	\$18,045,000	\$156,987,000	\$3,000
2014/15	\$32,693,000	\$11,224,000	\$17,346,000	-\$5,290,000	\$4,000
2015/16	\$25,441,000	\$11,825,000	\$17,196,000	-\$24,251,000	\$193,000

Expenses

<u>Plan Year</u>	<u>Benefit Payments</u>	<u>Admin. Expenses</u>	<u>Invest. Expenses</u>
2007	N/A	N/A	N/A
2008	\$38,530,904	\$607,811	\$2,742,878
2009	\$44,024,211	\$1,692,242	\$2,052,013
2010	\$43,378,646	\$54,705	\$2,559,031
2011	\$22,588,000	\$40,500	\$1,442,500
2011/12	\$48,746,000	\$192,000	\$3,244,000
2012/13	\$51,299,000	\$327,000	\$2,819,000
2013/14	\$53,279,000	\$653,000	\$3,840,000
2014/15	\$56,253,000	\$524,000	\$3,322,000
2015/16	\$59,823,000	\$429,000	\$3,122,000

Other Actuarial Adjustments

Advance
Employer
Contribs.

N/A
\$0
\$0
\$0
\$0
\$0
\$0
\$0
\$0
\$0
\$0

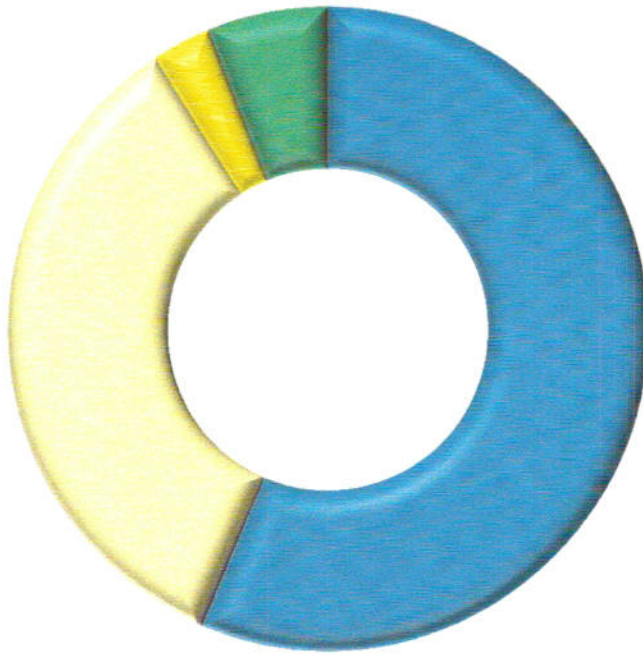
Note: Amounts shown for the 2011 short plan year are estimated.



Summary of Participant Data

Table III-A

As of July 1, 2016

Actively Employed Participants

Active Participants	1,962
DROP Participants	0

Inactive Participants

Deferred Vested Participants	13
Due a Refund of Contributions	0
Deferred Beneficiaries	0

Participants Receiving a Benefit

Service Retirements	1,195
Disability Retirements	104
Beneficiaries Receiving	211

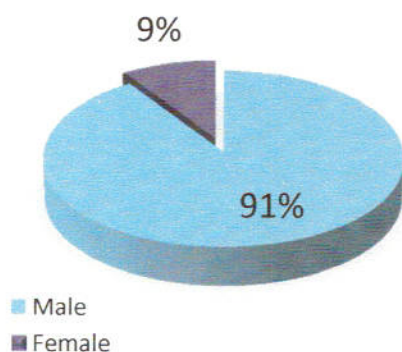
Total Participants 3,485Number of Participants Included in Prior Valuations

	<i>Active</i>	<i>DROP</i>	<i>Inactive</i>	<i>Retired</i>	<i>Total</i>
January 1, 2008	1,811	0	0	1,272	3,083
January 1, 2009	1,639	0	0	1,355	2,994
January 1, 2010	1,574	0	3	1,293	2,870
January 1, 2011	1,554	0	18	1,345	2,917
July 1, 2011	1,639	0	29	1,401	3,069
July 1, 2012	1,870	0	29	1,402	3,301
July 1, 2013	2,021	0	30	1,405	3,456
July 1, 2014	2,025	0	35	1,420	3,480
July 1, 2015	2,023	0	55	1,446	3,524
July 1, 2016	1,962	0	13	1,510	3,485



Active Participant Data

Table III-B

Gender Mix**As of July 1, 2016**

Average Age	37.9 years
Average Service	9.8 years
Total Annualized Compensation for the Prior Year	\$95,566,988
Total Expected Compensation for the Current Year	\$94,653,176
Average Increase in Compensation for the Prior Year	N/A
Expected Increase in Compensation for the Current Year	4.00%
Accumulated Contributions for Active Employees	\$100,636,682

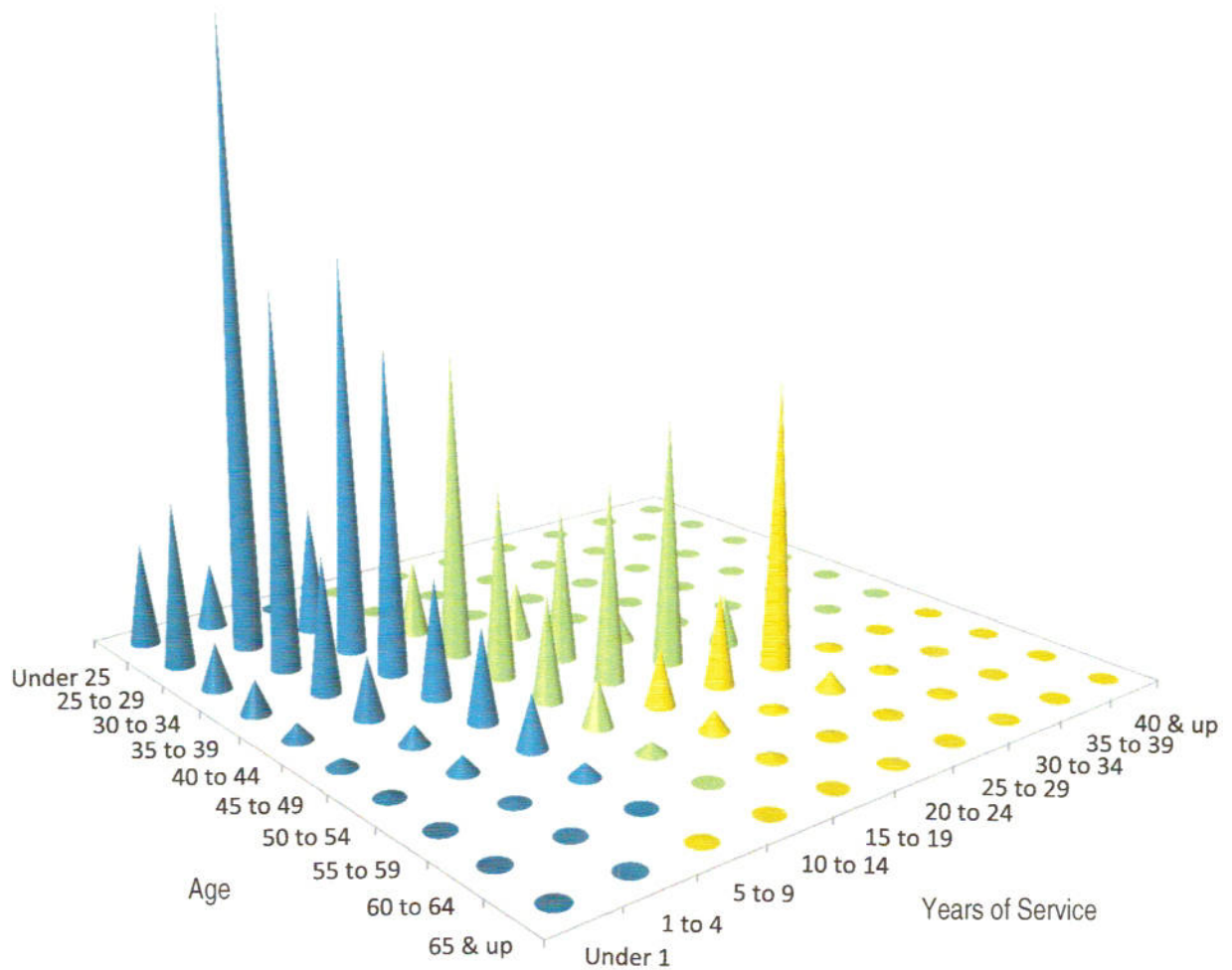
Active Participant Statistics From Prior Valuations

	Average Age	Average Service	Average Salary	Average Expected Salary Increase	Average Actual Salary Increase
January 1, 2008	37.5	10.4	\$48,199	4.00%	3.44%
January 1, 2009	37.9	11.0	\$51,008	4.00%	3.69%
January 1, 2010	38.9	10.8	\$50,854	4.00%	2.06%
January 1, 2011	39.3	11.0	\$55,477	4.00%	8.14%
July 1, 2011	37.9	10.0	\$46,046	1.98%	N/A
July 1, 2012	37.4	9.5	\$48,806	4.00%	N/A
July 1, 2013	37.1	9.2	\$45,098	4.00%	N/A
July 1, 2014	37.3	9.4	\$46,295	4.00%	N/A
July 1, 2015	37.7	9.6	\$46,010	4.00%	N/A
July 1, 2016	37.9	9.8	\$48,709	4.00%	N/A



Active Age-Service Distribution

Table III-C



- ▲ *Eligible to retire*
- ▲ *May be eligible to retire*
- ▲ *Not eligible to retire*



Active Age-Service-Salary Table

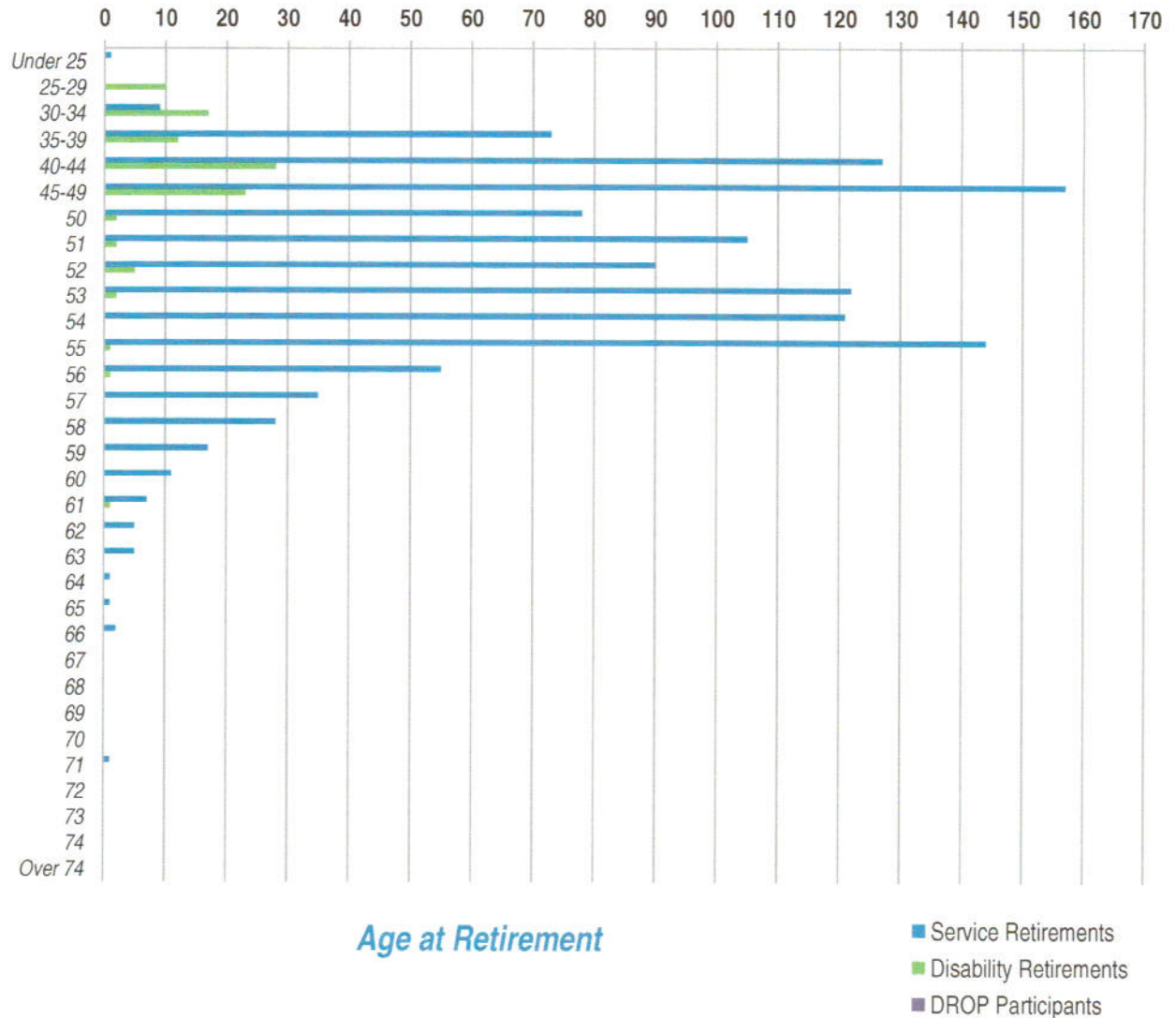
Table III-D

Attained Age	Completed Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25	42	27	0	0	0	0	0	0	0	0	69
Avg.Pay	15,403	37,149	0	0	0	0	0	0	0	0	23,912
25 to 29	68	256	52	0	0	0	0	0	0	0	376
Avg.Pay	16,712	37,780	38,059	0	0	0	0	0	0	0	34,008
30 to 34	19	152	163	31	0	0	0	0	0	0	365
Avg.Pay	17,292	37,943	42,670	53,665	0	0	0	0	0	0	40,314
35 to 39	14	55	133	126	24	0	0	0	0	0	352
Avg.Pay	19,145	36,007	45,510	56,266	62,742	0	0	0	0	0	48,001
40 to 44	7	25	48	78	63	11	0	0	0	0	232
Avg.Pay	19,290	36,421	47,423	54,675	66,806	65,906	0	0	0	0	53,966
45 to 49	4	8	38	43	81	101	21	0	0	0	296
Avg.Pay	20,323	40,163	44,291	54,124	65,791	70,496	73,448	0	0	0	62,178
50 to 54	2	7	22	20	23	38	117	2	0	0	231
Avg.Pay	12,372	38,057	47,852	57,608	66,470	67,954	78,027	65,165	0	0	68,686
55 to 59	0	1	6	5	9	3	8	2	0	0	34
Avg.Pay	0	40,321	49,446	50,142	71,745	64,796	66,972	152,485	0	0	66,722
60 to 64	0	0	0	0	2	1	1	1	0	0	5
Avg.Pay	0	0	0	0	58,437	83,876	77,908	59,269	0	0	67,585
65 & up	0	0	1	0	0	1	0	0	0	0	2
Avg.Pay	0	0	44,412	0	0	76,519	0	0	0	0	60,466
Total	156	531	463	303	202	155	147	5	0	0	1,962
Avg.Pay	16,801	37,591	43,931	55,274	66,015	69,562	76,770	98,914	0	0	48,709



Inactive Participant Data

Table III-E

*Age at Retirement*

■ Service Retirements
 ■ Disability Retirements
 ■ DROP Participants

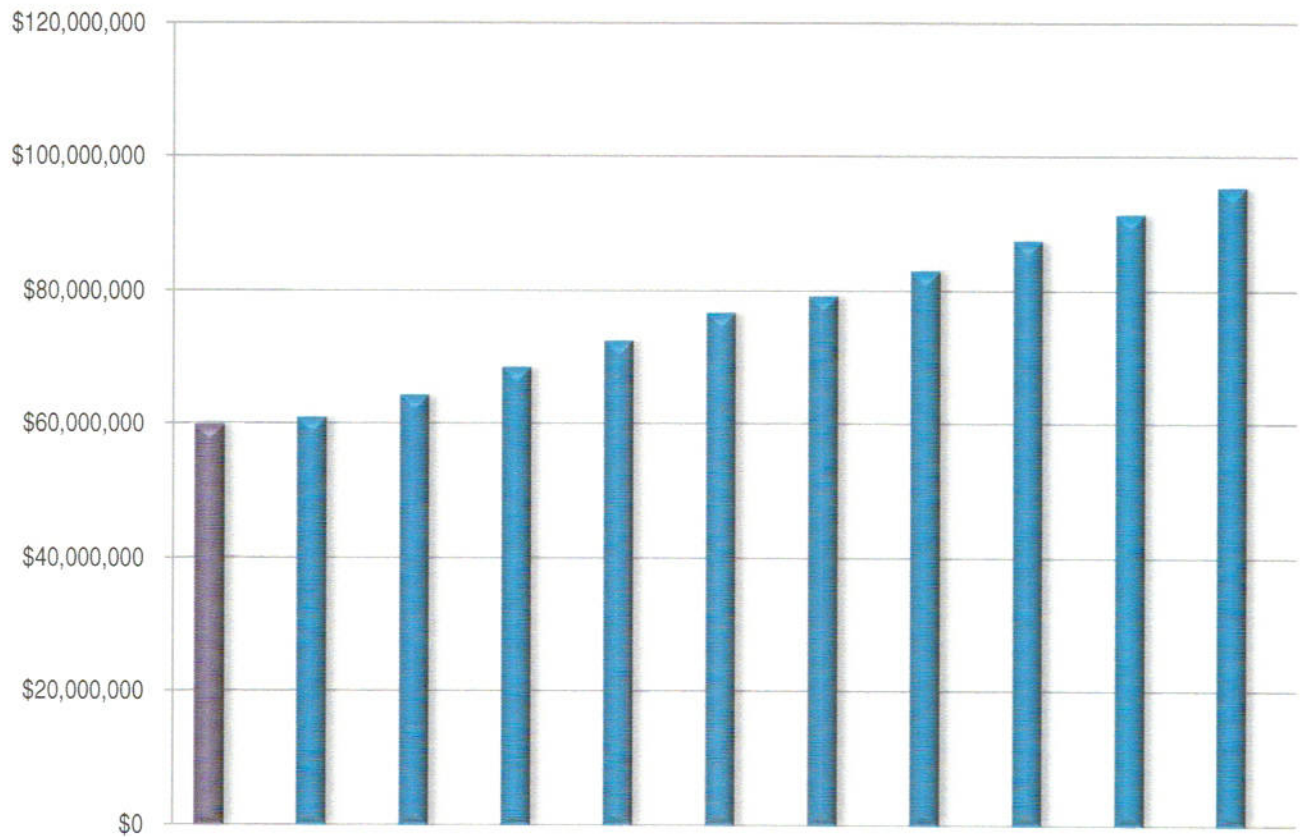
Average Monthly Benefit

Service Retirements	\$3,516.88
Disability Retirements	\$3,073.51
Beneficiaries Receiving	\$2,038.01
DROP Participants	Not applicable
Deferred Vested Participants	\$628.70
Deferred Beneficiaries	Not applicable



Projected Benefit Payments

Table III-F

Actual

For the period July 1, 2015 through June 30, 2016

\$59,823,000

Projected

For the period July 1, 2016 through June 30, 2017

\$60,926,066

For the period July 1, 2017 through June 30, 2018

\$64,366,542

For the period July 1, 2018 through June 30, 2019

\$68,637,595

For the period July 1, 2019 through June 30, 2020

\$72,638,314

For the period July 1, 2020 through June 30, 2021

\$76,745,268

For the period July 1, 2021 through June 30, 2022

\$79,323,589

For the period July 1, 2022 through June 30, 2023

\$83,019,641

For the period July 1, 2023 through June 30, 2024

\$87,513,862

For the period July 1, 2024 through June 30, 2025

\$91,380,116

For the period July 1, 2025 through June 30, 2026

\$95,305,748



Summary of Actuarial Methods and Assumptions

Table IV-A

NOTE: The following assumptions and methods have been selected and approved by the Board of Trustees based in part on the advice of the plan's enrolled actuary in accordance with the authority granted to the Board under the pension ordinances and State law.

1. **Actuarial Cost Method**

Individual entry age normal cost method. Under this actuarial cost method, a level funding cost is developed with respect to each benefit for each participant. The level funding cost for each benefit applies to the period beginning when the participant's service commences and ending when the participant is assumed to cease active participation due to each respective decrement. The actuarial accrued liability is equal to the accumulated level funding cost to the valuation date for all participants. The normal cost is equal to the level funding cost for the year immediately following the valuation date for all active participants.

2. **Asset Method**

The actuarial value of assets is equal to the market value of assets.

3. **Interest (or Discount) Rate**

7.50% per annum

4. **Salary Increases**

Plan compensation is assumed to increase at the rate of 4.00% per annum, unless actual plan compensation is known for a prior plan year.

5. **Decrements**

- Pre-retirement mortality: Sex-distinct rates set forth in the RP-2000 Mortality Table for annuitants, projected to 2015 by Scale AA, as published by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 430; deaths prior to retirement are assumed not to be service-connected; future generational improvements in mortality have not been reflected.
- Post-retirement mortality: Sex-distinct rates set forth in the RP-2000 Mortality Table for annuitants, projected to 2015 by Scale AA, as published by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 430; future generational improvements in mortality have not been reflected.



Summary of Actuarial Methods and Assumptions

Table IV-A

(continued)

- Disability: Sex-distinct rates set forth in the Wyatt 1985 Disability Study (Class 4); 75% of disabilities are assumed to be service-connected.
- Termination: Withdrawal rates were derived from a study of actual plan experience covering the period 1982 through 1986. A sample of the withdrawal rates is set forth in the following table:

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	15.0%	30	7.8%	40	2.30%	50	0.956%
25	11.4%	35	4.9%	45	1.35%	55	0.000%

- Retirement: Retirement is assumed to occur at normal retirement age.

6. **Unused Vacation**

All participants are assumed to have accumulated 30 days of unused vacation upon termination of employment, retirement, or death.

7. **Payroll Increase and Amortization Period**

Total payroll has been assumed to grow at the rate of 4.00% per year for purposes of amortizing the unfunded actuarial accrued liability as a level percentage of payroll; the amortization period is established by City ordinance as a closed 30-year period beginning July 1, 2011.

8. **Expenses**

Administrative expenses are assumed to be 0.75% of future payroll. In addition, the interest rate set forth in item 3. above is assumed to be net of investment expenses and commissions.

9. **Cost-of-Living Adjustment**

We have assumed that all eligible retirees will receive an automatic cost-of-living adjustment equal to 3.00% per annum.

10. **Surviving Beneficiaries**

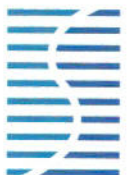
Those active participants who are making the additional 1% employee contribution to provide a survivor benefit to their eligible beneficiaries are assumed to have only one surviving beneficiary of the opposite gender of the employee. Males are assumed to be three years older than females for this purpose.



Changes in Actuarial Methods and Assumptions

Table IV-B

No assumptions or methods were changed since the previous valuation was completed.



Summary of Plan Provisions

Table V-A

1. Monthly Accrued Benefit

For participants who are hired after August 31, 2011:

1% of Average Monthly Earnings multiplied by up to 80 years of Creditable Service

For participants who are hired during the period July 1, 2010 through August 31, 2011:

2% of Average Monthly Earnings multiplied by up to 50 years of Creditable Service

For all other participants:

3% of Average Monthly Earnings multiplied by up to 26.667 years of Creditable Service

2. Normal Retirement Age and Benefit

• Age

Any age with at least 30 years of Creditable Service (*only for participants who are covered by the '05 Amendment*); or

Age 55 with at least 10 years of Creditable Service (*only for participants who are hired prior to July 1, 2010*); or

Age 55 with at least 15 years of Creditable Service (*only for participants who are hired prior to September 1, 2011*); or

Age 57 with at least 15 years of Creditable Service; or

Age 65 with at least 5 years of Creditable Service

• Amount

Monthly Accrued Benefit

• Form of Payment

Life annuity (*for those participants without an eligible beneficiary*); or

75% joint and contingent annuity (*for those participants with an eligible beneficiary; benefits continue in equal shares to the participant's dependent children upon the death of the participant's spouse or domestic partner or, for participants not covered by the '86 Amendment, upon the remarriage of the participant's spouse or domestic partner; survivor benefits are actuarially adjusted with respect to participants who are hired after August 31, 2011*)

Note: All annuity forms of payment include an automatic cost-of-living adjustment effective each January 1 based on the increase in the Consumer Price Index as of the preceding November 1 and limited to 3% (*limited to 1% with respect to participants who are hired after August 31, 2011*). All annuity forms of payment also provide a minimum payout equal to the employee's accumulated contributions, with interest credited after 1985 at the rate of 5% per year (or less than 5% with respect to any year during which the trust fund earns less than 5% on its investments).



Summary of Plan Provisions

Table V-A

(continued)

3. Early Retirement Age and Benefit

- **Age**
Any age with at least 10 years of Creditable Service *(15 years of Creditable Service for participants who are hired after June 30, 2010; minimum age of 47 for participants who are hired after August 31, 2011)*
- **Amount**
Monthly Accrued Benefit *(payable at Normal Retirement Age)*; or
Monthly Accrued Benefit reduced by ½% for each of the first 60 months and by ¼% for each additional month by which the participant's Early Retirement Age precedes Normal Retirement Age *(payable at Early Retirement Age and applicable only to those participants who are hired prior to September 1, 2011)*; or
Monthly Accrued Benefit reduced by ½% for each month by which the participant's Early Retirement Age precedes Normal Retirement Age *(payable at Early Retirement Age and applicable only to those participants who are hired after August 31, 2011)*; or
Monthly Accrued Benefit reduced by ¼% for each month by which the participant's Early Retirement Age precedes age 55 *(payable at Early Retirement Age and only applicable if the participant was hired prior to April 1, 1978 and has earned at least 25 years of Creditable Service)*
- **Form of Payment**
Same as for Normal Retirement

4. Delayed Retirement Age and Benefit

- **Age**
After Normal Retirement Age
- **Amount**
Monthly Accrued Benefit
- **Form of Payment**
Same as for Normal Retirement



Summary of Plan Provisions

Table V-A

(continued)

5. Disability Retirement Eligibility and Benefit

- **Eligibility**

All active participants are eligible if the disability is service-connected;
At least five years of Creditable Service is required otherwise.

- **Condition**

The participant must become “totally and permanently disabled” and must remain so disabled until age 55. “Totally and permanently disabled” means the participant is in a continuous state of incapacity due to illness or injury, is prevented from performing his regular assigned or comparable duties during the first 12 months of his disability, and is thereafter prevented from engaging in any occupation for which he is or becomes reasonably qualified by education, training, or experience. With respect to participants who are not covered by the '86 Amendment, the participant must only be prevented from performing his regular assigned or comparable duties during the entire period of his disability.

- **Amount**

For participants who incur a catastrophic injury in the line of duty:

100% of the top salary for the grade and position occupied by the participant at the time of disability

For all other participants who are covered by the '86 Amendment:

Greater of 50% of Average Monthly Earnings at the time of disability or Monthly Accrued Benefit, offset by worker's compensation payments such that the combination of payments does not exceed 75% of the participant's salary at the time of disability (*payable until the earlier of recovery from disability or Normal Retirement Age*); and

Monthly Accrued Benefit based on Average Monthly Earnings at the time of disability and Creditable Service including the period during which the participant was disabled, but excluding any cost-of-living adjustments that were previously applied to the participant's disability payments (*payable at Normal Retirement Age*)

For all other participants with a service-connected disability:

Greater of 70% of the top salary for the grade and position occupied by the participant at the time of disability or Monthly Accrued Benefit, offset by worker's compensation payments such that the combination of payments does not exceed 100% of the participant's salary at the time of disability

For all other participants:

Monthly Accrued Benefit, offset by worker's compensation payments such that the combination of payments does not exceed 100% of the participant's salary at the time of disability

- **Form of Payment**

Same as for Normal Retirement



Summary of Plan Provisions

Table V-A

(continued)

6. Deferred Vested Benefit

- **Age**
Any age with at least five years of Creditable Service
- **Amount**
Monthly Accrued Benefit multiplied by the participant's Vested Percentage and payable at age 60
- **Form of Payment**
Same as for Normal Retirement

7. Pre-Retirement Death Benefit

For participants who die in the line of duty and who are covered by the '86 Amendment:

- 100% of the participant's base salary at the time of his death, offset by worker's compensation or other payments received for line of duty injuries prior to the participant's death (*payable for the first two years after the participant's death*); and
- 75% of the Monthly Accrued Benefit (*payable thereafter*)

For all other participants who die in the line of duty:

- 100% of the participant's base salary at the time of his death, offset by worker's compensation or other payments received for line of duty injuries prior to the participant's death (*payable for the first two years after the participant's death*); and
- 75% of the greater of: (a) the Monthly Accrued Benefit, or (b) 70% of the top salary for the grade and position occupied by the participant at his death (*payable thereafter*)

For all other participants:

- 75% of the Monthly Accrued Benefit



Summary of Plan Provisions

Table V-A

(continued)

8. Vested Percentage

Retirement benefits with respect to those participants who are hired prior to July 1, 2010 become vested in accordance with the following schedule:

Years of Creditable Service	Vested Percentage
Less than five	0%
At least five, but less than six	25%
At least six, but less than seven	30%
At least seven, but less than eight	35%
At least eight, but less than nine	40%
At least nine, but less than 10	45%
At least 10	100%

Retirement benefits with respect to those participants who are hired after June 30, 2010 become vested in accordance with the following schedule:

Years of Creditable Service	Vested Percentage
Less than five	0%
At least five, but less than six	25%
At least six, but less than seven	30%
At least seven, but less than eight	35%
At least eight, but less than nine	40%
At least nine, but less than 10	45%
At least 10, but less than 11	50%
At least 11, but less than 12	55%
At least 12, but less than 13	60%
At least 13, but less than 14	65%
At least 14, but less than 15	70%
At least 15	100%



Summary of Plan Provisions

Table V-A

(continued)

9. Average Monthly Earnings

The participant's Average Monthly Earnings is equal to: (a) the average of the participant's Base Salary for the highest 36 consecutive months during his period of Creditable Service; plus (b) the difference between the highest and lowest daily rate of pay during such 36-month period multiplied by the days of unused sick leave and divided by 36; plus (c) a credit based on accumulated unused vacation. *(The averaging period is 120 months with respect to participants who are hired after August 31, 2011 and average monthly earnings does not include unused sick leave for these participants.)*

10. Base Salary

The employee's basic salary excluding overtime pay and other special compensation; pursuant to Internal Revenue Code (IRC) section 401(a)(17), total annual plan compensation is limited to \$200,000 as indexed.

11. Employee Contribution

All participating employees must make the required pre-tax contribution to the plan. The required contribution for participants who were hired prior to 1984 is 8% of basic salary for those participants who have an eligible beneficiary and 7% of basic salary for those participants who do not have an eligible beneficiary. The required contribution for participants who were hired during the period 1984 through August 31, 2011 is 13% of basic salary (8% prior to November 1, 2011) for those participants who have an eligible beneficiary and 12% of basic salary (7% prior to November 1, 2011) for those participants who do not have an eligible beneficiary. The required contribution for participants who are hired after August 31, 2011 is 8% of basic salary. An eligible beneficiary is the participant's legal spouse, registered domestic partner, or unmarried child under the age of 18. The participant must have been married or registered to his legal spouse or domestic partner for at least one year prior to his death in order for such individual to be an eligible beneficiary. *(During the period March, 1994 through June, 2009, the required contribution was 1% lower for all participants; prior to March, 1994, the contribution was made on an after-tax basis.)*



Summary of Plan Provisions

Table V-A

(continued)

12. Creditable Service

Creditable Service includes “base creditable service” (plus an “unused sick leave service credit” for those participants who were hired prior to September 1, 2011) plus military service as required by federal law. Base creditable service is granted for all periods of full-time employment as a firefighter with the City of Atlanta provided that the employee has made the required contribution for such period of service. With respect to eligible participants, an unused sick leave service credit is granted by dividing the participant’s days of unused sick leave by the number of work days set forth in the following chart:

Years of Base Creditable Service	Work Days
Less than five	239
At least five, but less than 10	236
At least 10, but less than 15	233
At least 15, but less than 20	230
At least 20	226

Creditable Service also includes other service with the City of Atlanta if the relevant contributions are transferred into this plan and may include prior service with the State of Georgia, Fulton County, DeKalb County, or as a teacher in a public school system or private college or university within the State of Georgia if the required contribution is made to the plan.

13. Participation Requirement

All full-time police officers employed by the City of Atlanta are eligible to participate in the plan.

14. Plan Effective Date

April 1, 1978



Summary of Plan Amendments

Table V-B

No plan changes have been adopted since the previous valuation was completed.

