# CITY OF ATLANTA FIREFIGHTERS' PENSION FUND

Actuarial Valuation As of January 1, 2010

DETERMINES THE CONTRIBUTION FOR THE 2010/11 FISCAL YEAR



# TABLE OF CONTENTS

		<u>Page</u>
Discussion		1
Funding Res	sults	
Table I-A	Minimum Required Contribution	I <b>-</b> 1
Table I-B	Sensitivity Analysis	I-2
Table I-C	Gain and Loss Analysis	I-3
Table I-D	Present Value of Future Benefits	1-4
Table I-E	Present Value of Accrued Benefits	I <b>-</b> 5
Table I-F	Present Value of Vested Benefits	I-6
Table I-G	Entry Age Normal Accrued Liability	1-7
Table I-H	Entry Age Normal Cost	I <b>-</b> 8
Accounting	Results .	
Table II-A	GASB 25/27 Results	-1
Table II-B	GASB 25/27 Disclosures	11-2
Table II-C	SFAS 35 Disclosures	II-3
<u>Assets</u>		
Table III-A	Actuarial Value of Assets	-1
Table III-B	Market Value of Assets	III <b>-</b> 2
Table III-C	Investment Return	III-3
Table III-D	Asset Reconciliation	-4
Table III-E	Historical Trust Fund Detail	III <b>-</b> 5
<u>Data</u>		
Table IV-A	Summary of Participant Data	IV-1
Table IV-B	Active Participant Data	IV-2
Table IV-C	Active Age-Service Distribution	IV-3
Table IV-D	Active Age-Service-Salary Table	iV-4
Table IV-E	Inactive Participant Data	IV-5
Table IV-F	Projected Benefit Payments	IV-6
Methods & A	<u>Assumptions</u>	
Table V-A	Summary of Actuarial Methods and Assumptions	V-1
Table V-B	Changes in Actuarial Methods and Assumptions	V-3
Plan Provisi		
Table VI-A	Summary of Plan Provisions	VI-1
Table VI-B	Summary of Plan Amendments	VI-7



October 4, 2010

#### Introduction

This report presents the results of the January 1, 2010 actuarial valuation of the City of Atlanta Firefighters' Pension Fund. This valuation is based upon the participant data provided as of January 1, 2010 by the plan administrator and asset information provided as of December 31, 2009 by the plan auditor. 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 January 1, 2010 and to determine the minimum required contribution under Georgia Code Section 47-20-10 for the City's 2010/11 fiscal year. In addition, this report provides a projection of the long-term funding requirements of the plan, accounting disclosures pursuant to Governmental Accounting Standards Board Statement Nos. 25 and 27 (GASB 25/27), 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 <u>estimate</u> 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 V-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 of the 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 2010/11 fiscal year. The minimum required contribution rate is 55.65% of covered payroll, which represents a decrease of 0.20% 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 3.56% of payroll due to investment losses, decreased by 4.90% of payroll due to demographic experience, and increased by 1.14% due to the net effect of three changes in the assumptions used to determine plan liabilities. The



assumption changes are discussed in more detail below. Although the market value of assets earned 23.77% during the 2009 plan year, the actuarial value of assets earned only 3.28% during the same period because the actuarial value reflects a portion of the accumulated gains and losses that have occurred during the past five years. Since a 7.75% annual investment return on the actuarial value of assets is required to maintain a stable contribution rate, the contribution rate increased due to the shortfall in investment earnings on the actuarial value of assets.

Georgia Code Section 47-20-10 sets forth many of the rules concerning the minimum required contribution for public pension plans within the state. Essentially, the City will meet the minimum funding requirement if the employer contributions are at least equal to the annual required contribution under GASB 25/27. 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 \$787,429,917. As illustrated in Table I-A, current assets are sufficient to cover \$422,791,344 of this amount, the employer's expected contribution for the period January 1, 2010 through June 30, 2010 will cover \$12,261,976 of this amount, the employer's 2010/11 expected contribution will cover \$24,917,966 of this amount, and future employee contributions will cover \$24,676,976 of this amount, leaving \$302,781,685 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-C provide information needed by both the plan's and the employer's accountants in order to prepare the relevant financial statements that cover the period July 1, 2010 through June 30, 2011. Tables III-A through III-F provide information concerning the assets of the trust fund. Specifically, Table III-A shows the development of the actuarial value of assets, which is based on the five-year phase-in of the net investment appreciation in order to provide a more stable and predictable contribution rate for the employer. Tables IV-A through IV-F provide statistical information concerning the plan's participant population. In particular, Table IV-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 V-A through VI-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 January 1, 2010, as well as a summary of the changes that have occurred since the previous valuation report was prepared.

### **Assumption and Changes**

Since the previous valuation report was prepared, three assumptions have been changed. First, the assumed retirement age was changed from a range of rates at ages 45 to 60 to normal retirement age. Second, the assumed disability rates were changed from rates based on the 1974 Social Security disability study to the sex-distinct rates set forth in the Wyatt 1985 Disability Study (Class 4). Finally, the assumed administrative expenses were changed from a



1.00% loading of all costs and liabilities to 1.00% of future payroll. The assumption changes increased the minimum required contribution by 1.14% of payroll.

### 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. 08-04927

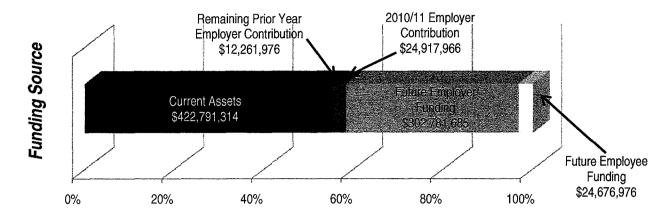
Charle J. Ca

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 2010/11 Fiscal Year

Entry Age Normal Cost for the 2010 Plan Year	\$12,186,498
Unfunded Liability Amortization Payment for the 2010 Plan Year	\$14,697,171
Expense Allowance for the 2010 Plan Year	\$439,104
Expected Employee Contribution for the 2010 Plan Year	(\$3,363,536)
Adjustment to Reflect Semi-Monthly Employer Contributions	\$944,031
_	\$24,903,268
Contribution Requirement for the First Half of the Plan Year	\$12,451,634
Expected Employer Contribution for the First Half of the Plan Year	(\$12,261,976)
Remaining Contribution Due/(Credit) for the First Half of the Plan Year	\$189,658
_	x 0.0775
One Year's Interest Charge/(Credit) on the Remaining Contribution	\$14,698
Preliminary Employer Contribution for the 2010/11 Fiscal Year	\$24,917,966
Expected Payroll for the 2010/11 Fiscal Year _	÷ \$44,779,987
Minimum Required Contribution Rate	55.65%

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

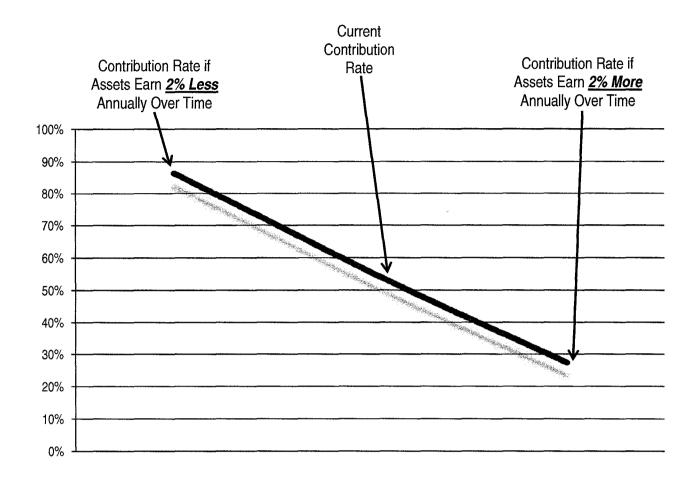
### **Additional Disclosures**

Present Value of Future Compensation	\$321,621,371
Present Value of Future Employer Contributions	\$339,961,627
Present Value of Future Employee Contributions	\$24,676,976



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	55.85%
Increase (decrease) due to investment gains and losses Increase (decrease) due to demographic experience	3.56% -4.90%
Increase (decrease) due to plan amendments Increase (decrease) due to actuarial assumption changes Increase (decrease) due to actuarial method changes	0.00% 1.14% 0.00%
Current minimum required contribution rate	55.65%

### Source of Change in the Unfunded Liability

	Source of Change in the Onlyhoed Liability
\$300,257,000	Previous unfunded liability
\$23,269,918 (\$15,966,705) (\$24,067,059)	Increase due to interest Decrease due to amortization payments Increase (decrease) due to plan experience
\$0 (\$7,109,986) \$0	Increase (decrease) due to plan amendments Increase (decrease) due to actuarial assumption changes Increase (decrease) due to actuarial method changes
\$276,383,168	Current unfunded liability
	•



# **Funding Results**

# Present Value of Future Benefits

Table I-D

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	\$335,279,857	\$335,279,857	\$318,122,731
Termination benefits	\$749,607	\$749,607	\$11,915,321
Disability benefits	\$8,605,102	\$8,605,102	\$12,590,573
Death benefits	\$3,707,581	\$3,707,581	\$4,113,195
Refund of employee contributions	\$115,701	\$115,701	\$116,976
Sub-total	\$348,457,848	\$348,457,848	\$346,858,796
<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
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$399,334	\$399,334	\$395,341
Retired Participants			
Service retirements	\$327,787,069	\$327,787,069	\$324,509,198
Disability retirements	\$74,968,346	\$74,968,346	\$74,218,663
Beneficiaries receiving	\$38,617,884	\$38,617,884	\$38,231,705
DROP participants	\$0	\$0	\$0
Sub-total	\$441,373,299	\$441,373,299	\$436,959,566
Grand Total	<u>\$790,230,481</u>	<u>\$790,230,481</u>	<u>\$784,213,703</u>



# Present Value of Accrued Benefits

# Table I-E

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	\$203,013,444	\$203,013,444	\$192,921,013
Termination benefits	\$431,124	\$431,124	\$6,620,643
Disability benefits	\$6,123,505	\$6,123,505	\$9,166,949
Death benefits	\$2,361,444	\$2,361,444	\$2,718,043
Refund of employee contributions	\$69,788	\$69,788	\$70,645
Sub-total	\$211,999,305	\$211,999,305	\$211,497,293
Deferred Vested Participants			
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
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$399,334	\$399,334	\$395,341
Retired Participants			
Service retirements	\$327,787,069	\$327,787,069	\$324,509,198
Disability retirements	\$74,968,346	\$74,968,346	\$74,218,663
Beneficiaries receiving	\$38,617,884	\$38,617,884	\$38,231,705
DROP participants	\$0	\$0	\$0
Sub-total	\$441,373,299	\$441,373,299	\$436,959,566
Grand Total	<u>\$653,771,938</u>	<u>\$653,771,938</u>	<u>\$648,852,200</u>



# Present Value of Vested Benefits

Table I-F

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	\$183,167,574	\$183,167,574	\$173,826,188
Termination benefits	\$311,800	\$311,800	\$6,165,009
Disability benefits	\$6,123,505	\$6,123,505	\$9,166,949
Death benefits	\$2,320,899	\$2,320,899	\$2,680,945
Refund of employee contributions	\$188,147	\$188,147	\$306,516
Sub-total	\$192,111,925	\$192,111,925	\$192,145,607
Deferred Vested Participants			
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
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$399,334	\$399,334	\$395,341
Retired Participants			
Service retirements	\$327,787,069	\$327,787,069	\$324,509,198
Disability retirements	\$74,968,346	\$74,968,346	\$74,218,663
Beneficiaries receiving	\$38,617,884	\$38,617,884	\$38,231,705
DROP participants	\$0	\$0	\$0
Sub-total	\$441,373,299	\$441,373,299	\$436,959,566
Grand Total	<u>\$633,884,558</u>	<u>\$633,884,558</u>	<u>\$629,500,514</u>



# Entry Age Normal Accrued Liability

Table I-G

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	\$255,361,019	\$255,361,019	\$241,478,087
Termination benefits	\$471,261	\$471,261	\$8,443,339
Disability benefits	\$5,875,426	\$5,875,426	\$8,755,977
Death benefits	\$2,734,511	\$2,734,511	\$3,071,648
Refund of employee contributions	\$69,618	\$69,618	\$70,524
Sub-total	\$264,511,835	\$264,511,835	\$261,819,575
Deferred Vested Participants			
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
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$399,334	\$399,334	\$395,341
Retired Participants			
Service retirements	\$327,787,069	\$327,787,069	\$324,509,198
Disability retirements	\$74,968,346	\$74,968,346	\$74,218,663
Beneficiaries receiving	\$38,617,884	\$38,617,884	\$38,231,705
DROP participants	\$0	\$0	\$0
Sub-total	\$441,373,299	\$441,373,299	\$436,959,566
Grand Total	<u>\$706,284,468</u>	<u>\$706,284,468</u>	<u>\$699,174,482</u>
less Actuarial Value of Assets	(\$422,791,314)	(\$422,791,314)	(\$422,791,314)
Unfunded Accrued Liability	<u>\$283,493,154</u>	<u>\$283,493,154</u>	<u>\$276,383,168</u>



# Entry Age Normal Cost

Table I-H

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	\$11,001,730	\$11,001,730	\$10,619,146
Termination benefits	\$88,873	\$88,873	\$581,615
Disability benefits	\$506,337	\$506,337	\$782,273
Death benefits	\$154,781	\$154,781	\$177,966
Refund of employee contributions	\$25,271	\$25,271	\$25,498
Sub-total	\$11,776,992	\$11,776,992	\$12,186,498
Deferred Vested Participants			
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
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
Retired Participants			
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
Grand Total	<u>\$11,776,992</u>	<u>\$11,776,992</u>	<u>\$12,186,498</u>



# **Accounting Results**

### GASB 25/27 Results

### Table II-A

### **Development of the Net Pension Obligation (Asset)**

Net Pension Obligation (Asset) as of July 1, 2010	\$0
Net Increase (Decrease) in NPO	\$0
Employer Contributions for the 2009/10 Plan Year	(\$22,826,650)
Annual Pension Cost for the 2009/10 Plan Year	\$22,826,650
Net Pension Obligation (Asset) as of July 1, 2009	\$0

### For the 2010/11 Plan Year

### **Development of the Annual Required Contribution (ARC)**

Employer Normal Cost	\$8,822,962
Amortization of the UAAL	\$14,697,171
Expense Allowance	\$439,104
Amortization of the Net Pension Obligation (Asset)	\$0
Interest Adjustment	\$958,729
Annual Required Contribution (ARC)	\$24,917,966

### **Development of the Annual Pension Cost (APC)**

Annual Required Contribution (ARC)	\$24,917,966
Interest on the Net Pension Obligation (Asset)	\$0
Adjustment to the ARC	\$0
Annual Pension Cost (APC)	\$24,917,966



### GASB 25/27 Disclosures

Table II-B

### Schedule of Employer Contributions

	Annual		Annual	
Year Ended	Required	%	Pension	%
December 31	Contribution	Contrib.	<u>Cost</u>	Contrib.
2004	N/A	N/A	N/A	N/A
2005	\$8,284,000	100%	\$8,284,000	100%
2006	\$25,727,000	100%	\$25,727,000	100%
2007	\$27,056,000	100%	\$27,056,000	100%
2008	\$28,752,000	100%	\$28,752,000	100%
2009	\$22,826,650	100%	\$22,826,650	100%

### Schedule of Funding Progress

	(1)	(2)	(3)	(4)	(5)	(6)
		Actuarial				UAAL
Actuarial	Actuarial	Accrued	Unfunded			as % of
Valuation	Value of	Liability	AAL	Funded	Covered	Covered
Date	Assets	(AAL)	(UAAL)	Ratio	Payroll	Payroll
			(2) – (1)	(1) ÷ (2)		(3) ÷ (5)
January 1, 2005	N/A	\$445,777,000	N/A	N/A	\$38,774,000	N/A
January 1, 2006	N/A	\$557,706,000	N/A	N/A	\$36,440,000	N/A
January 1, 2007	N/A	\$577,271,000	N/A	N/A	\$45,686,000	N/A
January 1, 2008	\$340,075,000	\$652,816,000	\$312,741,000	52.09%	\$45,561,000	686.42%
January 1, 2009	\$408,090,000	\$708,347,000	\$300,257,000	57.61%	\$43,275,000	693.83%
January 1, 2010	\$422,791,314	\$699,174,482	\$276,383,168	60.47%	\$43,910,390	629.43%

### **Additional Information**

Valuation Date January 1, 2010

Actuarial Cost Method Entry age normal

Amortization Method Level percentage, open

Remaining Amortization Period 30 years

Asset Valuation Method Five-year smoothed market

Discount Rate 7.75%

Salary Increase Rate 4.00%



### SFAS 35 Disclosures

Table II-C

### Actuarial Present Value of Accrued Benefits

	As of January 1, 2009	As of January 1, 2010
Vested Benefits		
Participants currently receiving benefits	\$435,327,000	\$436,959,566
Other participants	\$204,192,000	\$192,540,948
Sub-total	\$639,519,000	\$629,500,514
Non-Vested Benefits	\$17,503,000	\$19,351,686
<u>Total Benefits</u>	\$657,022,000	\$648,852,200
Funded Percentage (based on the market value of assets)	51.67%	64.98%

### Statement of Change in Actuarial Present Value of Accrued Benefits

Actuarial Present Value as of January 1, 2009	\$657,022,000
Increase (Decrease) Due To:	
Interest	\$50,919,205
Benefits accumulated	(\$29,446,936)
Benefits paid	(\$24,722,331)
Plan amendments	\$0
Changes in actuarial methods and assumptions	(\$4,919,738)
Net increase (decrease)	(\$8,169,800)
Actuarial Present Value as of January 1, 2010	\$648,852,200



### **Actuarial Value of Assets**

### Table III-A

<u>Net Inves</u>	stment Gain (Loss)	<u>Unrec</u>	<u>ognized Gain (Loss)</u>
For the 2006 plan year	\$2,164,000	x 20%	\$432,800
For the 2007 plan year	(\$21,391,000)	x 40%	(\$8,556,400)
For the 2008 plan year	(\$82,726,401)	x 60%	(\$49,635,841)
For the 2009 plan year	\$70,709,177	x 80%	\$56,567,342
, ,			(\$1,192,099)

Market Value of Assets as of January 1, 2010

\$421,599,215

Minus advance employer contributions

\$0

Adjustment for unrecognized gain or loss as shown above, but restricted to an amount that keeps the actuarial value of assets within an 80%-120% corridor of the market value

\$1,192,099

Actuarial Value of Assets as of January 1, 2010

\$422,791,314

#### **Historical Actuarial Value of Assets** January 1, 2001 N/A January 1, 2002 N/A January 1, 2003 N/A January 1, 2004 N/A January 1, 2005 N/A January 1, 2006 N/A January 1, 2007 N/A January 1, 2008 \$340,075,000 \$408,090,000 January 1, 2009 \$422,791,314 January 1, 2010

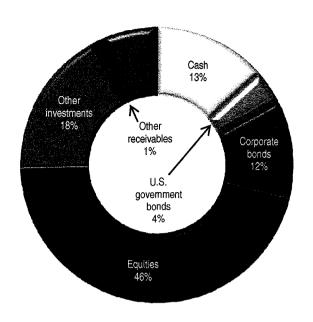


### Market Value of Assets

## Table III-B

As of January 1, 2010

Market Value of Assets	<u>\$421,599,215</u>
Cash	\$64,973,001
U.S. government bonds	\$18,527,832
Corporate bonds	\$57,039,108
Equities	\$221,299,580
Other investments	\$85,254,911
Interest receivable	\$1,530,286
Other receivables	\$4,502,289
Due to brokers	(\$29,989,387)
Other accounts payable	(\$1,538,405)

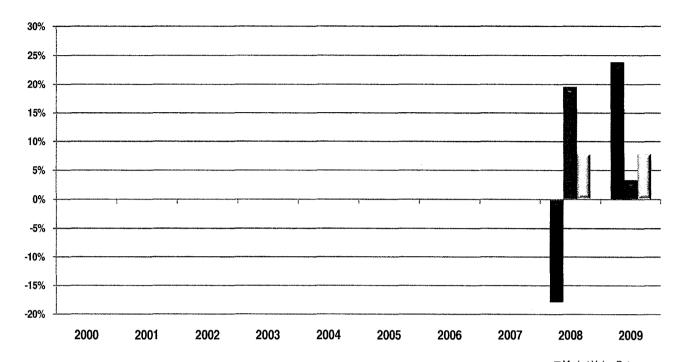


#### **Historical Market Value of Assets** January 1, 2001 N/A January 1, 2002 N/A January 1, 2003 N/A January 1, 2004 N/A January 1, 2005 N/A January 1, 2006 N/A January 1, 2007 N/A January 1, 2008 \$411,686,841 \$339,458,639 January 1, 2009 January 1, 2010 \$421,599,215



# **Investment Return**

Table III-C



### Annual Investment Returns

<sup>■</sup> Actuarial Value Return

Assumed Return

Plan	Market Value	Actuarial Value	Assumed
<u>Year</u>	<u>Return</u>	Return	Return
2000	N/A	N/A	N/A
2001	N/A	N/A	N/A
2002	N/A	N/A	N/A
2003	N/A	N/A	N/A
2004	N/A	N/A	N/A
2005	N/A	N/A	N/A
2006	N/A	N/A	N/A
2007	N/A	N/A	N/A
2008	-17.86%	19.54%	7.75%
2009	23.77%	3.28%	7.75%



Asset Reconciliation		Table III-D
	<u>Market Value</u>	<u>Actuarial Value</u>
As of January 1, 2009	\$339,458,639	\$408,090,000
Increases Due To:		
Employer Contributions	\$22,826,650	\$22,826,650
Employee Contributions	\$3,566,186	\$3,566,186
Total Contributions	\$26,392,836	\$26,392,836
Interest and Dividends	\$11,622,333	
Gains (Losses) Total Investment Income	\$70,709,177 \$82,331,510	\$13,410,401
Other Income	\$469,298	
Total Income	\$109,193,644	\$39,803,237
Decreases Due To:		
Benefit Payments	(\$24,722,331)	(\$24,722,331)
Total Benefit Payments	(\$24,722,331)	(\$24,722,331)
Investment Expenses	(\$1,951,145)	
Administrative Expenses	(\$379,592)	(\$379,592)
Advance Employer Contribution		\$0
Total Expenses	(\$27,053,068)	(\$25,101,923)
As of January 1, 2010	\$421,599,215	\$422,791,314



# Historical Trust Fund Detail

Table III-E

### <u>Income</u>

Plan	Employer	Employee	Interest /	Gains /	Other
<u>Year</u>	Contribs.	Contribs.	<u>Dividends</u>	Losses	<u>Income</u>
2000	N/A	N/A	N/A	N/A	N/A
2001	N/A	N/A	N/A	N/A	N/A
2002	N/A	N/A	N/A	N/A	N/A
2003	N/A	N/A	N/A	N/A	N/A
2004	N/A	N/A	N/A	N/A	N/A
2005	N/A	N/A	N/A	N/A	N/A
2006	N/A	N/A	N/A	N/A	N/A
2007	N/A	N/A	N/A	N/A	N/A
2008	\$28,752,000	\$2,920,034	\$11,864,299	-\$82,726,401	\$476,858
2009	\$22,826,650	\$3,566,186	\$11,622,333	\$70,709,177	\$469,298

### **Expenses**

Plan	Benefit	Admin.	Invest.
<u>Year</u>	<u>Payments</u>	<u>Expenses</u>	<b>Expenses</b>
2000	N/A	N/A	N/A
2001	N/A	N/A	N/A
2002	N/A	N/A	N/A
2003	N/A	N/A	N/A
2004	N/A	N/A	N/A
2005	N/A	N/A	N/A
2006	N/A	N/A	N/A
2007	N/A	N/A	N/A
2008	\$29,504,175	\$735,779	\$3,275,038
2009	\$24,722,331	\$379,592	\$1,951,145



1,790

# Summary of Participant Data

## Table IV-A

As of January 1, 2010

Participant Distribution by Status

#### Actively Employed Participants **Active Participants** 864 **DROP** Participants 0 Inactive Participants **Deferred Vested Participants** 0 Due a Refund of Contributions 0 **Deferred Beneficiaries** 2 Participants Receiving a Benefit Service Retirements 556 **Disability Retirements** 145 Beneficiaries Receiving 223

**Total Participants** 

	Active	DROP	Inactive	Retired	Total
January 1, 2001	N/A	N/A	N/A	N/A	N/A
January 1, 2002	878	0	0	742	1,620
January 1, 2003	853	0	0	740	1,593
January 1, 2004	830	0	0	748	1,578
January 1, 2005	901	0	0	749	1,650
January 1, 2006	861	0	0	814	1,675
January 1, 2007	997	0	0	863	1,860
January 1, 2008	991	0	0	918	1,909
January 1, 2009	896	0	2	1002	1,900
January 1, 2010	864	0	2	924	1,790



### **Active Participant Data**

### Table IV-B

### Gender Mix

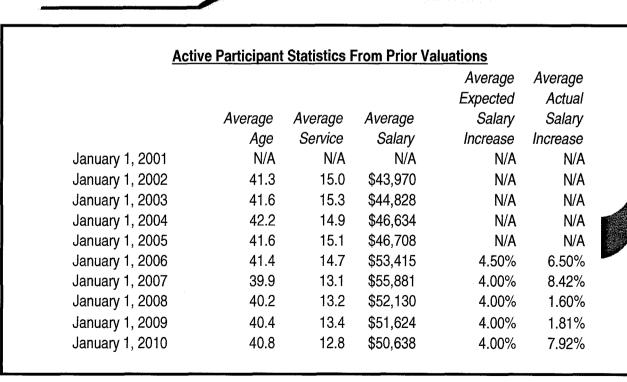
**■** Female

# 2% 98% ■ Male

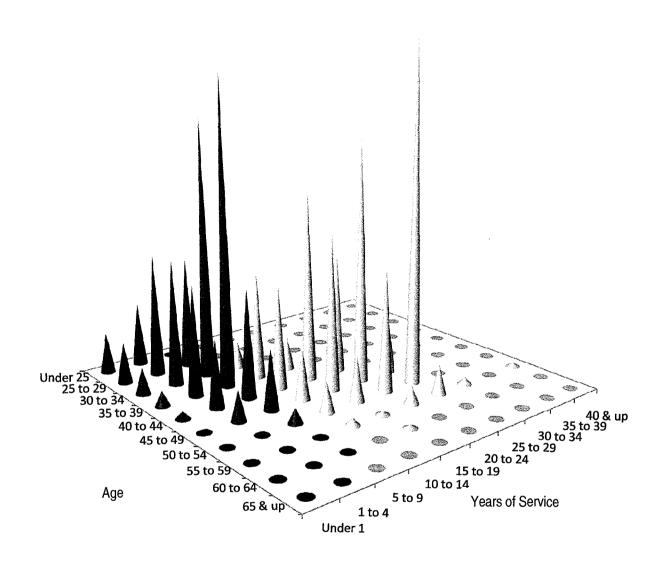
### As of January 1, 2010

Average Age	40.8 years
Average Service	12.8 years
Total Annualized Compensation for the Prior Year	\$43,751,058
Total Expected Compensation for the Current Year	\$43,910,390
Average Increase in Compensation for the Prior Year	7.92%
Expected Increase in Compensation for the Current Year	4.00%
Accumulated Contributions for Active Employees	\$30,748,539

### Actual vs. Expected Salary Increases







 $\triangle$  Eligible to retire

▲ May be eligible to retire

▲ Not eligible to retire



# Active Age-Service-Salary Table

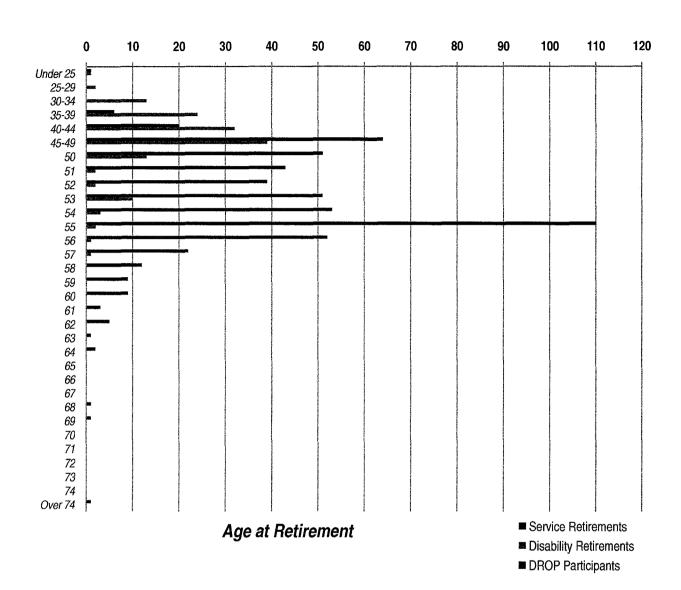
Table IV-D

Attained		Completed Years of Service									
Age	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	Total
Lindov 05	44	17	4	0	٥	0	٥	0	٥	١	29
Under 25 Avg.Pay	<b>11</b> 10,740	36,425	<b>1</b> 38,351	<b>0</b> 0	<b>0</b>   0	0	<b>0</b> 0	<b>0</b> 0	<b>0</b>	<b>0</b> 0	26,749
Avg.i ay	10,740	00,420	50,551		Ŭ	0			U	Ŭ	20,140
25 to 29	11	33	30	0	0	0	0	0	0	0	74
Avg.Pay	15,201	38,638	39,539	0	0	0	0	0	0	0	35,520
1					'			'			
30 to 34	7	34	69	7	0	0	0	0	0	0	117
Avg.Pay	15,801	39,297	42,622	46,735	0	0	0	0	0	0	40,297
35 to 39	4	30	81	29	9	0	0	0	0	0	153
Avg.Pay	17,799	42,117	43,964	51,145	57,522	0	0	0	0	0	45,076
7 tr g.r try	17,700	12,117	10,001	01,110	07,022	Ů			Ů	Ů	10,010
40 to 44	2	18	29	28	51	32	0	0	0	0	160
Avg.Pay	11,062	43,341	44,823	52,440	61,583	61,916	0	0	0	0	54,328
45 to 49	0	8	16	14	42	64	17	0	0	0	161
Avg.Pay	0	42,540	42,207	53,914	59,381	62,520	60,428	0	0	0	57,720
50 to 54	0	1	4	8	12	33	91	0	0	0	149
Avg.Pay	0	62,322	42,720	55,527	55,443	59,273	66,523	0	0	0	62,767
/ vg. uy	Ĭ	02,022	1,7.20	00,027	00,110	00,2.0	00,020	Ů	Ů	Ů	02,707
55 to 59	0	1	0	2	1	5	8	2	0	1	20
Avg.Pay	0	62,582	0	53,021	52,984	60,005	68,644	89,988	0	88,401	66,958
60 to 64	0	0	0	0	1	0	0	0	0	0	1
Avg.Pay	0	0	0	0	58,532	0	0	0	0	0	58,532
65 & up	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0.	0	0	0	0	0	0	0	0	0
						-					
Total	35	142	230	88	116	134	116	2	0	1	864
Avg.Pay	13,980	40,417	42,924	52,088	59,735	61,482	65,776	89,988	0	88,401	50,638



# Inactive Participant Data

# Table IV-E



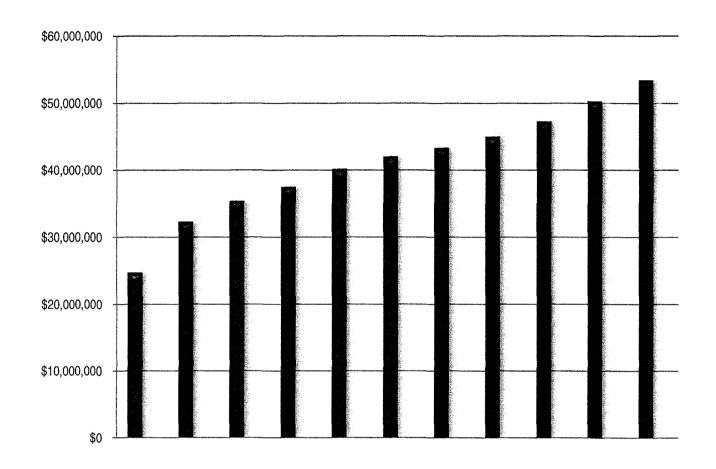
### Average Monthly Benefit

Service Retirements	\$3,475.91
Disability Retirements	<i>\$2,864.50</i>
Beneficiaries Receiving	\$1,414.73
DROP Participants	Not applicable
Deferred Vested Participants	Not applicable
Deferred Beneficiaries	\$2 832 71



# **Projected Benefit Payments**

# Table IV-F



<u>Actual</u>				
For the period January	1. 2009 th	nrough Dece	ember 31. :	2009

\$24,722,331

### **Projected**

<u>r rojecteu</u>	
For the period January 1, 2010 through December 31, 2010	\$32,237,447
For the period January 1, 2011 through December 31, 2011	\$35,321,834
For the period January 1, 2012 through December 31, 2012	\$37,429,338
For the period January 1, 2013 through December 31, 2013	\$40,178,922
For the period January 1, 2014 through December 31, 2014	\$41,996,013
For the period January 1, 2015 through December 31, 2015	\$43,356,465
For the period January 1, 2016 through December 31, 2016	\$45,079,784
For the period January 1, 2017 through December 31, 2017	\$47,286,423
For the period January 1, 2018 through December 31, 2018	\$50,292,033
For the period January 1, 2019 through December 31, 2019	\$53,394,711



### Summary of Actuarial Methods and Assumptions

Table V-A

#### 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 adjusted to reflect a five-year phase-in of the net investment appreciation.

### 3. Interest (or Discount) Rate

7.75% 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 non-annuitants;

deaths prior to retirement are assumed not to be service-connected.

Post-retirement mortality:

Sex-distinct rates set forth in the RP-2000 Mortality Table for annuitants

Disability:

Sex-distinct rates set forth in the Wyatt 1985 Disability Study (Class 4); 67%

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:

Age Ra	ate Age	Rate	Age	Rate	Age	Rate
20 5.4	54% 30	3.615%	40	1.804%	50	1.210%
25 4.2	18% 35	2.866%	45	1.313%	55	0.000%

Retirement:

Retirement is assumed to occur at normal retirement age.



## Summary of Actuarial Methods and Assumptions

Table V-A

(continued)

### 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 rolling 30-year period beginning July 1, 2009.

### 8. Expenses

Administrative expenses are assumed to be 0.50% 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 V-B

The following assumptions have been changed from those used to complete the previous valuation:

- 1. The assumed incidence of disability was changed from rates based on the 1974 Social Security disability study to the sex-distinct rates set forth in the Wyatt 1985 Disability Study (Class 4).
- 2. The assumed retirement age was changed from a range of rates at ages 45 through 60 to normal retirement age.
- 3. Administrative expenses were changed from a 1.00% loading of all costs and liabilities to 1.00% of future payroll.



Table VI-A

### 1. Monthly Accrued Benefit

For participants who are covered by the '05 Amendment:

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

For all other participants:

2% of Average Monthly Earnings multiplied by Creditable Service earned through February 28, 2001 plus 3% of Average Monthly Earnings multiplied by Creditable Service earned thereafter

### 2. Normal Retirement Age and Benefit

### • Age

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

Age 55 with at least 10 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)

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%. 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).



Table VI-A

(continued)

### 3. Early Retirement Age and Benefit

Age

Any age with at least 10 years of Creditable Service

Amount

Monthly Accrued Benefit (payable at age 55); 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 age 55 (payable at Early Retirement Age); 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

### 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.



Table VI-A

(continued)

### Disability Retirement Eligibility and Benefit (continued)

#### 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 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 age 55); 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 age 55)

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

#### 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



### Table VI-A

(continued)

#### 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

### 8. Vested Percentage

Retirement benefits 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%	



Table VI-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.

#### 10. Base Salary

The employee's basic salary excluding overtime pay and other special compensation; pursuant to 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 is 8% of basic salary for those participants who have an eligible beneficiary for death benefits and 7% of basic salary for all other participants. 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.)

#### 12. Creditable Service

Creditable Service includes "base creditable service" and an "unused sick leave service credit," 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. 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



Table VI-A

(continued)

### **Creditable Service (continued)**

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 firefighters 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 VI-B

Since the completion of the previous valuation, no significant plan changes have been adopted.

