

*City of Atlanta*  
*Firefighters' Pension Fund*

Actuarial Valuation Report  
as of  
January 1, 2005



# TABLE OF CONTENTS

	<u>Page Number</u>
<b>Discussion</b> .....	1
 <b><u>Funding Results</u></b>	
Table I Summary of Valuation Results.....	3
Table II Historical Contribution Rate.....	4
Table III Liabilities as of January 1, 2005.....	5
 <b><u>Accounting Results</u></b>	
Table IV Accounting Disclosures (GASB 25/27).....	6
Table V Present Value of Accrued Benefits.....	8
 <b><u>Assets</u></b>	
Table VI Summary of Assets.....	9
Table VII Historical Asset Information.....	10
Table VIII Contributions vs. Fund Payouts.....	11
 <b><u>Data</u></b>	
Table IX Summary of Participant Data.....	12
Table X Active Data.....	13
Table XI Retiree Data.....	14
Table XII Age-Service-Salary Table.....	15
 <b><u>Methods &amp; Assumptions</u></b>	
Table XIII Actuarial Assumptions.....	16
 <b><u>Plan Provisions</u></b>	
Table XIV Plan Provisions.....	18



POST OFFICE BOX 888343  
ATLANTA, GEORGIA 30356-0343  
TELEPHONE 770.392.0980  
FACSIMILE 770.392.2193  
WWW.SOUTHERNACTUARIAL.COM

**October 31, 2005**

Board of Trustees  
City of Atlanta Firefighters' Pension Fund

Ladies and Gentlemen:

This report presents the results of the actuarial valuation of the City of Atlanta Firefighters' Pension Fund as of January 1, 2005. The purpose of this report is to provide a summary of the funded status of the plan as of January 1, 2005 and to determine the annual required contribution and accounting disclosures pursuant to Governmental Accounting Standard Nos. 25 and 27 (GASB 25/27).

### **Recommended Contribution**

Currently, the plan receives contributions from the City of Atlanta and from employees. Employees contribute either 6% or 7% of base salary, depending on whether the employee has any beneficiaries who would be eligible for death benefits under the plan. The City contributes the amount that is actuarially determined as a level percentage of payroll, where the unfunded accrued liability is scheduled to be eliminated as of January 1, 2019 and payroll is assumed to increase at the rate of 4.50% per year. The contribution is based on the actuarial valuation results as of January 1 of the preceding plan year.

For the 2006 plan year, the minimum required contribution based on the January 1, 2005 actuarial valuation results is equal to 40.44% of payroll after taking into account expected employee contributions of 6.75% of payroll. This amount represents an increase of 6.22% of payroll from the required contribution for the 2005 plan year.

The increase in the contribution is partially due to poor investment performance over the past five years. The market value of assets gained 9.14% during 2004 as compared with an assumed return of 8.00%. Rather than reflect the entire amount of the unrealized gains and losses immediately, the actuarial value of assets is based on a five-year phase-in of the unrealized appreciation. On this basis, the actuarial value of assets only gained 2.28% for the year, which was well below the assumed 8.00% return.

We will continue to monitor the assumptions used to determine the City's contribution and will make changes as necessary to reflect future expectations.

---

### **Contents of the Report**

A summary of the results of the valuation is presented in Table I, while Table II provides a historical record of the City's contribution percentage. A detailed breakdown of the liabilities of the plan by type of benefit is presented in Table III. Information for the auditors can be found in Tables IV and V. Tables VI through VIII provide information about the fund's assets. In particular, Table VI provides a breakdown of the fund assets by investment type, and Tables VII and VIII provide a historical record of the growth, expenditures, and annual yields of the fund. Tables IX through XII provide a variety of useful information concerning the participant population. Finally, Table XIII provides a summary of the assumptions and methods used to complete the valuation and Table XIV provides a summary of the plan provisions.

### **Certification**

To the best of my knowledge, this report fairly and accurately represents the liabilities of the plan as of January 1, 2005 based on the participant data and asset information provided by the City of Atlanta and the plan provisions and actuarial assumptions set forth herein. I believe that these assumptions are reasonable in the aggregate and represent my best estimate of anticipated experience. All calculations set forth herein conform to generally accepted actuarial principles and practices and comply with my current understanding of the requirements of the Georgia Code and the Governmental Accounting Standards Board.

Respectfully submitted,

Charles T. Carr  
Consulting Actuary  
Enrolled Actuary No. 05-04927



**SUMMARY OF VALUATION RESULTS**

**TABLE I**

	<u>As of January 1, 2004</u>	<u>As of January 1, 2005</u>
<b>1. Number of Participants</b>		
<b>a. Active Participants</b>		
i. Fully Vested	433	482
ii. Partially Vested	243	238
iii. Non-Vested	154	181
iv. Sub-total	<u>830</u>	<u>901</u>
<b>b. Deferred Vested Participants</b>	<b>0</b>	<b>0</b>
<b>c. Retired Participants</b>		
i. Service Retirement	387	393
ii. Disability Retirement	162	157
iii. Beneficiaries	199	199
iv. Sub-total	<u>748</u>	<u>749</u>
<b>d. Total Participants</b>	<u><b>1,578</b></u>	<u><b>1,650</b></u>
<b>2. Expected Annual Compensation *</b>	<b>\$38,303</b>	<b>\$38,774</b>
<b>3. Development of Required Contribution *</b>		
a. Actuarial Accrued Liability	\$417,092	\$445,777
b. Actuarial Value of Assets	(\$321,908)	(\$325,630)
c. Unfunded Actuarial Accrued Liability (UAAL)	<u>\$95,184</u>	<u>\$120,147</u>
d. Amortization Payment Towards UAAL	\$8,686	\$11,226
e. Normal Cost	\$7,723	\$7,895
f. Initial Annual Cost	<u>\$16,409</u>	<u>\$19,121</u>

	<u>For the 2005 Plan Year</u>	<u>For the 2006 Plan Year</u>
<b>4. Minimum Required Contribution</b>		
a. Level Percent Amortization of UAAL	21.70 %	27.71 %
b. Normal Cost Percentage	19.29 %	19.48 %
c. Total Contribution Percentage	<u>40.99 %</u>	<u>47.19 %</u>
d. Effective Employee Contribution	(6.77)%	(6.75)%
e. Minimum Required Employer Contribution	<u><b>34.22 %</b></u>	<u><b>40.44 %</b></u>

\* dollar amounts are shown in 000's



<u>Plan Year</u>	<u>Employer Contribution Percentage</u>	<u>Plan Year</u>	<u>Employer Contribution Percentage</u>	<u>Plan Year</u>	<u>Employer Contribution Percentage</u>
1999	27.53%	2002	16.50%	2005	34.22%
2000	27.53%	2003	24.30%	2006	40.44%
2001	16.50%	2004	24.30%		

**LIABILITIES AS OF January 1, 2005**

**TABLE III**

	Retirement Benefits	Disability Benefits	Withdrawal Benefits	Pre-Ret. Death Benefits	Return of Employee Contributions	Total
<b>1. Present Value of Future Benefits</b>						
a. Active participants	\$240,140	\$6,294	\$1,025	\$6,508	\$104	\$254,071
b. Def. vested participants	\$0	\$0	\$0	\$0	\$0	\$0
c. Retired participants:						
Retirees	\$155,475	\$61,658	\$0	\$0	\$0	\$217,133
Beneficiaries	\$27,596	\$0	\$0	\$0	\$0	\$27,596
d. Total	<b>\$423,211</b>	<b>\$67,952</b>	<b>\$1,025</b>	<b>\$6,508</b>	<b>\$104</b>	<b>\$498,800</b>
<b>2. Entry Age Accrued Liability</b>						
a. Active participants	\$190,479	\$4,614	\$655	\$5,230	\$70	\$201,048
b. Def. vested participants	\$0	\$0	\$0	\$0	\$0	\$0
c. Retired participants:						
Retirees	\$155,475	\$61,658	\$0	\$0	\$0	\$217,133
Beneficiaries	\$27,596	\$0	\$0	\$0	\$0	\$27,596
d. Total	<b>\$373,550</b>	<b>\$66,272</b>	<b>\$655</b>	<b>\$5,230</b>	<b>\$70</b>	<b>\$445,777</b>
<b>3. Entry Age Normal Cost</b>	<b>\$6,929</b>	<b>\$316</b>	<b>\$87</b>	<b>\$203</b>	<b>\$20</b>	<b>\$7,555</b>
<b>4. Present Value of Vested Benefits</b>						
a. Active participants	\$118,551	\$4,515	\$3,826	\$3,434	\$347	\$130,673
b. Def. vested participants	\$0	\$0	\$0	\$0	\$0	\$0
c. Retired participants:						
Retirees	\$155,475	\$61,658	\$0	\$0	\$0	\$217,133
Beneficiaries	\$27,596	\$0	\$0	\$0	\$0	\$27,596
d. Total	<b>\$301,622</b>	<b>\$66,173</b>	<b>\$3,826</b>	<b>\$3,434</b>	<b>\$347</b>	<b>\$375,402</b>
<b>5. Present Value of Accrued Benefits</b>						
a. Active participants	\$127,736	\$4,515	\$585	\$3,806	\$75	\$136,717
b. Def. vested participants	\$0	\$0	\$0	\$0	\$0	\$0
c. Retired participants:						
Retirees	\$155,475	\$61,658	\$0	\$0	\$0	\$217,133
Beneficiaries	\$27,596	\$0	\$0	\$0	\$0	\$27,596
d. Total	<b>\$310,807</b>	<b>\$66,173</b>	<b>\$585</b>	<b>\$3,806</b>	<b>\$75</b>	<b>\$381,446</b>

*\* all amounts are shown in 000's*

	For the 2005 Plan Year	For the 2006 Plan Year
<b>A. Number of Plan Participants as of Preceding January 1</b>		
a. Retirees and beneficiaries receiving benefits	748	749
b. Terminated plan participants entitled to but not yet receiving benefits	0	0
c. Active plan participants	830	901
d. Total	<u>1,578</u>	<u>1,650</u>
<b>B. Development of Annual Required Contribution (ARC) *</b>		
a. Employer normal cost:		
i. Total normal cost (EOY)	\$8,339	\$8,525
ii. Expected employee contribution	(\$2,927)	(\$2,954)
iii. Employer normal cost	<u>\$5,412</u>	<u>\$5,571</u>
b. Amortization of UAAL:		
i. PV of future benefits	\$469,299	\$498,800
ii. PV of future employer normal costs	(\$34,028)	(\$33,153)
iii. PV of future employee contributions	(\$18,179)	(\$19,870)
iv. Actuarial accrued liability (AAL)	\$417,092	\$445,777
v. Actuarial value of assets	(\$321,908)	(\$325,630)
vi. Unfunded AAL (UAAL)	\$95,184	\$120,147
vii. Amortization of UAAL	<b>\$8,628</b>	<b>\$11,646</b>
c. Amortization of NPO	<b>\$0</b>	<b>\$0</b>
d. <b>ARC</b>	<u><b>\$14,040</b></u>	<u><b>\$17,217</b></u>
(Item B.a.iii. plus item B.b.vii. plus item B.c.)		
<b>C. Annual Pension Cost and Net Pension Obligation (NPO) *</b>		
a. ARC	\$14,040	\$17,217
b. Interest on NPO	\$0	\$0
c. Adjustment to ARC	\$0	\$0
d. <b>Annual Pension Cost</b>	<u><b>\$14,040</b></u>	<u><b>\$17,217</b></u>
e. Contributions made (w/interest to EOY)	(\$14,040)	(\$17,217)
f. Increase(decrease) in NPO	\$0	\$0
g. NPO (beginning of year)	\$0	\$0
h. <b>NPO (end of year)</b>	<u><b>\$0</b></u>	<u><b>\$0</b></u>

\* dollar amounts are shown in 000's



**D. Schedule of Employer Contributions \*\***

Year Ended December 31	Annual Required Contribution	Percentage Contributed	Annual Pension Cost	Percentage Contributed
2001	\$9,438	100%	\$9,438	100%
2002	\$8,943	100%	\$8,943	100%
2003	\$9,681	100%	\$9,681	100%
2004	\$17,452	100%	\$17,452	100%
2005	\$14,040	100%	\$14,040	100%
2006	\$17,217	100%	\$17,217	100%

**E. Schedule of Funding Progress \*\***

Actuarial Valuation Date	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL)	(3) Unfunded AAL (UAAL) (2) – (1)	(4) Funded Ratio (1) ÷ (2)	(5) Covered Payroll	(6) UAAL as % of Covered Payroll (3) ÷ (5)
1/1/1998	\$223,575	\$297,349	\$73,774	75.2%	\$27,552	267.8%
1/1/2000	\$289,054	\$322,370	\$33,316	89.7%	\$35,367	94.2%
1/1/2002	\$326,620	\$370,291	\$43,671	88.2%	\$36,803	118.7%
1/1/2003	\$320,193	\$413,191	\$92,998	77.5%	\$38,335	242.6%
1/1/2004	\$321,908	\$417,092	\$95,184	77.2%	\$38,303	248.5%
1/1/2005	\$325,630	\$445,777	\$120,147	73.0%	\$38,774	309.9%

**F. Additional Information**

Valuation date	January 1, 2004	January 1, 2005
Actuarial cost method	Individual entry age	Individual entry age
Amortization method	Level percent closed	Level percent closed
Remaining amortization period	40 years from 1/1/1979	40 years from 1/1/1979
Asset valuation method	Five-year smoothed market	Five-year smoothed market
Actuarial assumptions:		
Investment rate of return *	8.00%	8.00%
Projected salary increases *	4.50%	4.50%
* Includes inflation at:	2.50%	2.50%
Cost-of-living adjustments	2.50%	2.50%

\*\* dollar amounts are shown in 000's.

**1. Actuarial Present Value of Accrued Benefits**

	<u>As of January 1, 2004</u>	<u>As of January 1, 2005</u>
a. Vested Benefits:		
i. Participants currently receiving benefits	\$240,196	\$244,729
ii. Other participants	\$111,301	\$130,673
iii. Sub-total	<u>\$351,497</u>	<u>\$375,402</u>
b. Non-Vested Benefits	<u>\$6,849</u>	<u>\$6,044</u>
c. Total Benefits	<b><u>\$358,346</u></b>	<b><u>\$381,446</u></b>
d. Market Value of Assets	\$324,477	\$350,391
e. Funded Ratio	90.55%	91.86%

**2. Statement of Change in Actuarial Present Value of Accrued Benefits**

a. Actuarial Present Value as of January 1, 2004	<b>\$358,346</b>
b. Increase (Decrease) During 2004 Plan Year Due to:	
i. Interest	\$28,668
ii. Benefits accumulated	\$13,571
iii. Benefits paid	(\$19,139)
iv. Plan amendments	\$0
v. Changes in actuarial assumptions or methods	\$0
vi. Net increase (decrease)	<u>\$23,100</u>
c. Actuarial Present Value as of January 1, 2005	<b>\$381,446</b>

**3. Items Affecting Calculation of Actuarial Present Value of Accrued Benefits**

- a. Plan provisions reflected in the accrued benefits (see Table XIV on page 18)
- b. Actuarial assumptions and methods used to determine present values (see Table XIII on page 16)

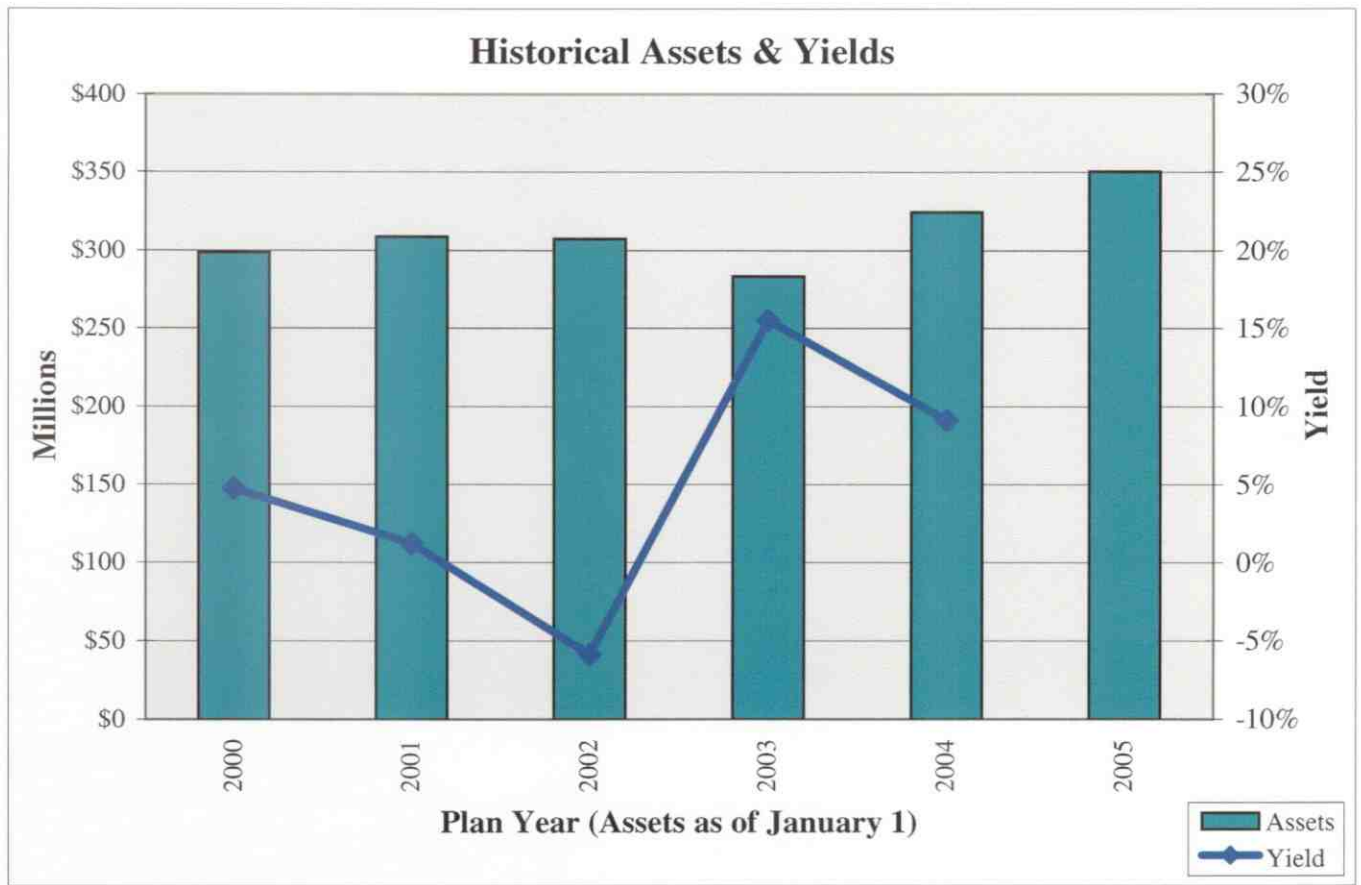
**SUMMARY OF ASSETS**

**TABLE VI**

	<u>As of</u> <u>January 1, 2004</u>	<u>As of</u> <u>January 1, 2005</u>
<b>1. Market Value of Assets (in 000's)</b>		
a. Cash and cash equivalents (7%)	\$43,085	\$23,402
b. Government bonds & notes (18%)	\$49,840	\$64,605
c. Corporate bonds (12%)	\$54,433	\$43,721
d. Equities (62%)	\$120,241	\$217,215
e. Repurchase agreements (0%)	\$0	\$0
f. Real estate (0%)	\$0	\$0
g. Mortgages (0%)	\$53,013	\$809
h. Accrued income receivable (0%)	\$2,298	\$55
i. Contributions receivable (0%)	\$121	\$0
j. Other assets (0%)	\$4,188	\$1,125
k. Benefits and accounts payable (0%)	(\$88)	(\$19)
l. Other liabilities (0%)	(\$2,654)	(\$522)
m. Market value of assets	<b>\$324,477</b>	<b>\$350,391</b>
<b>2. Actuarial Value of Assets (in 000's)</b>		
a. Market value of assets	\$324,477	\$350,391
b. Five-year phase-in of net investment appreciation:		
i. 2000	(\$470) x 20% =	(\$94)
ii. 2001	\$24,846 x 40% =	\$9,938
iii. 2002	\$27,490 x 60% =	\$16,494
iv. 2003	(\$36,134) x 80% =	(\$28,907)
v. 2004	(\$23,808)	x 80% = (\$19,046)
vi. Total unrecognized losses(gains)	(\$2,569)	(\$24,761)
c. Actuarial Value of Assets	<b>\$321,908</b>	<b>\$325,630</b>
(Item a. plus item b., but within an 80-120% corridor of item a.)		

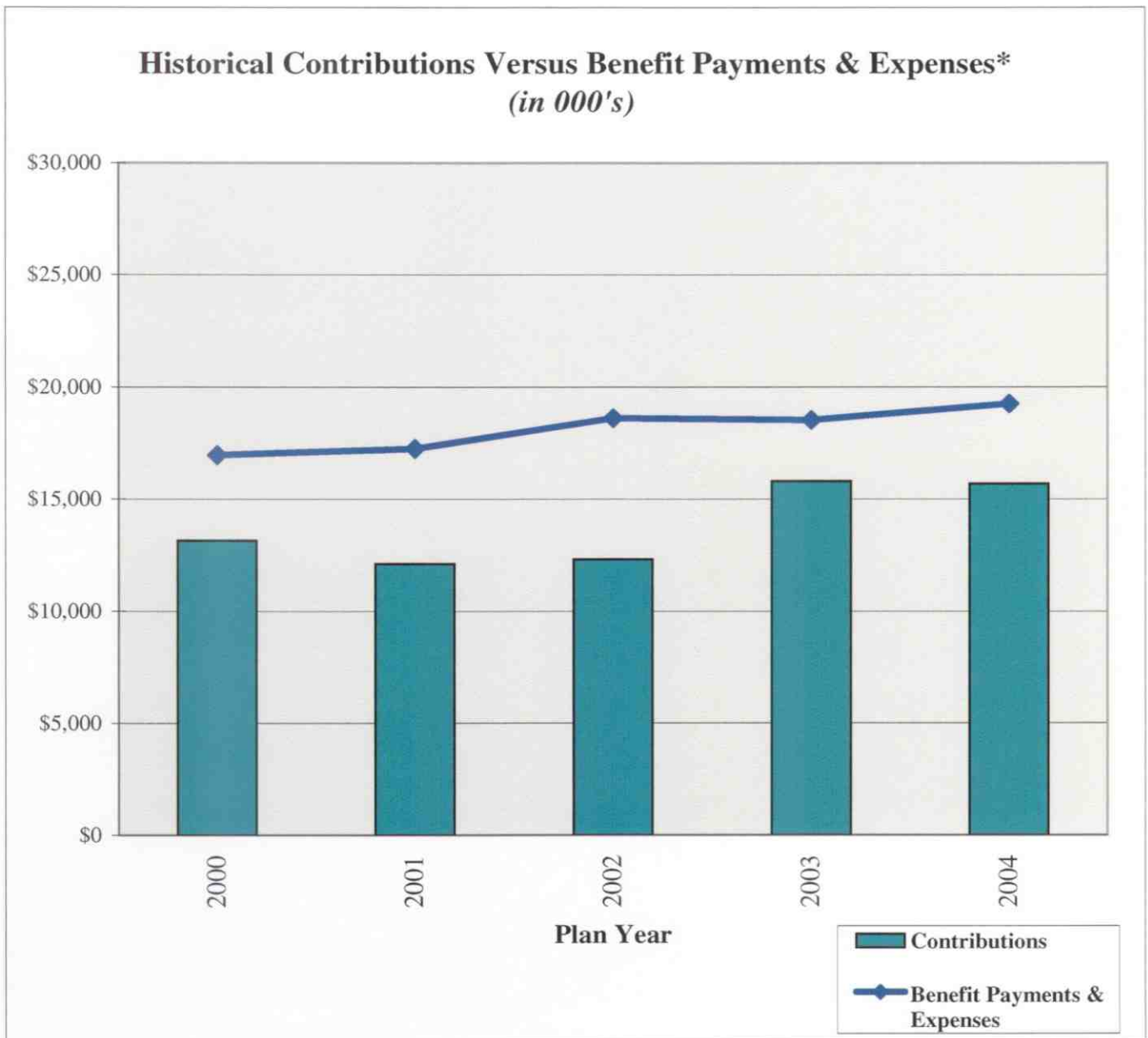
**Note:**

*The percentages in parentheses indicate the proportion of assets committed to each type of investment as of January 1, 2005.*

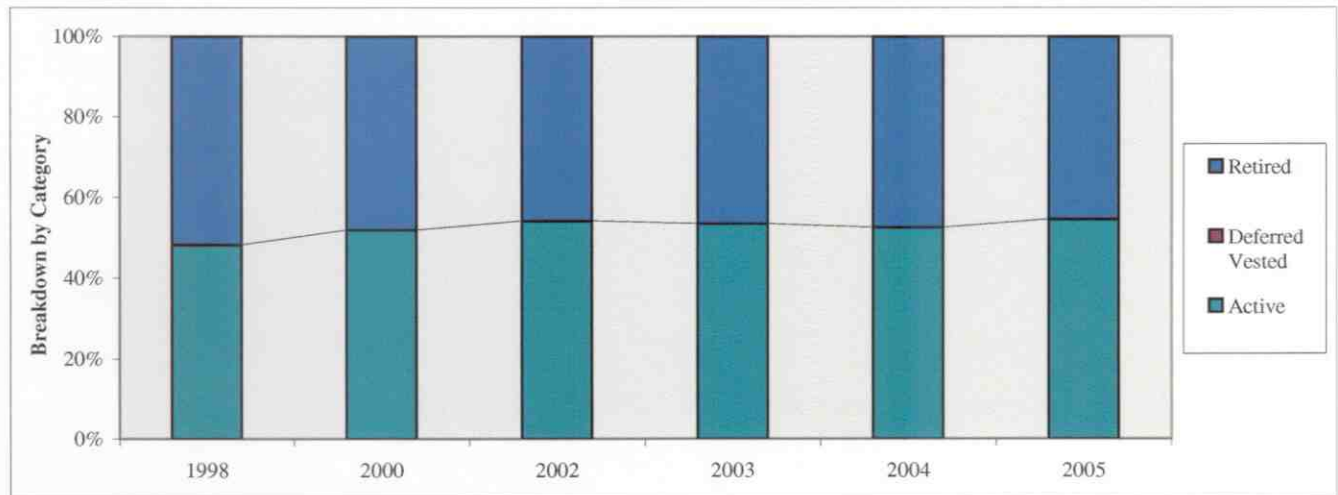
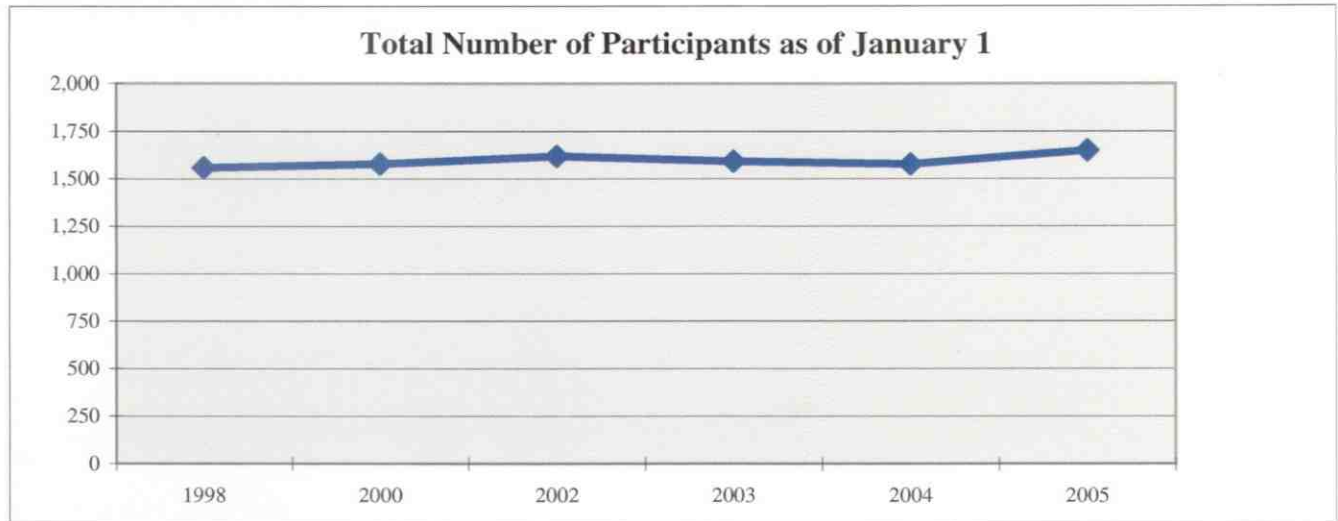


Plan Year	Market Value as of January 1	Actuarial Value as of January 1	Benefit Payments	Expenses	Contributions	Market Value Yield	Actuarial Value Yield
2000	\$298,815	\$289,054	\$16,432	\$523	\$13,157	4.74%	7.86%
2001	\$309,105		\$16,771	\$462	\$12,117	1.21%	7.86%
2002	\$307,689	\$326,620	\$17,518	\$1,088	\$12,314	-5.88%	-0.04%
2003	\$283,481	\$320,193	\$18,346	\$184	\$15,800	15.50%	1.39%
2004	\$324,477	\$321,908	\$19,139	\$121	\$15,681	9.14%	2.28%
2005	\$350,391	\$325,630					

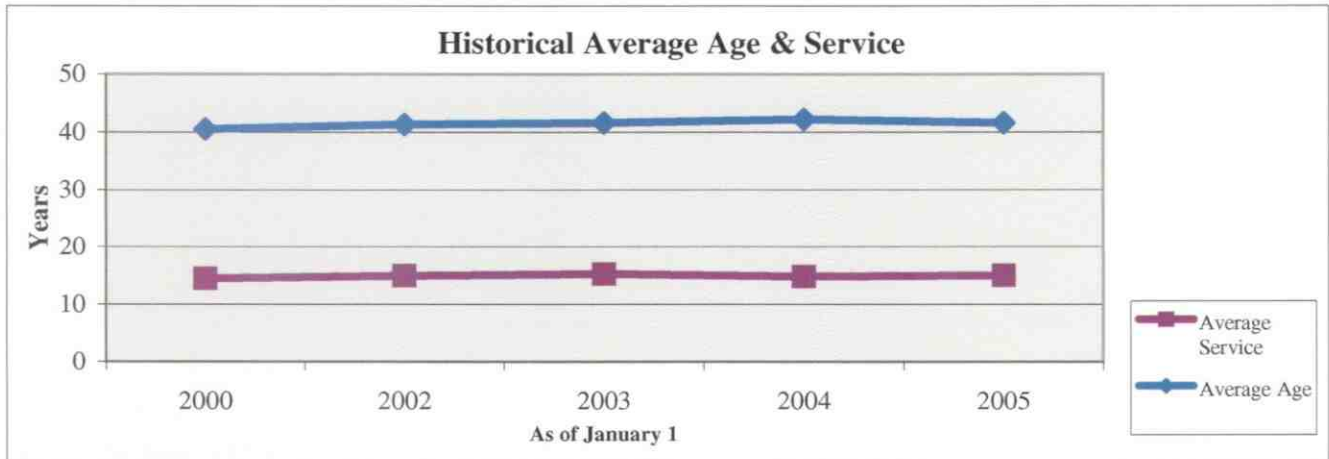
\* all dollar amounts are shown in 000's



\* Please reference Table VII on page 10 for the historical benefit payments, expenses, and contributions.



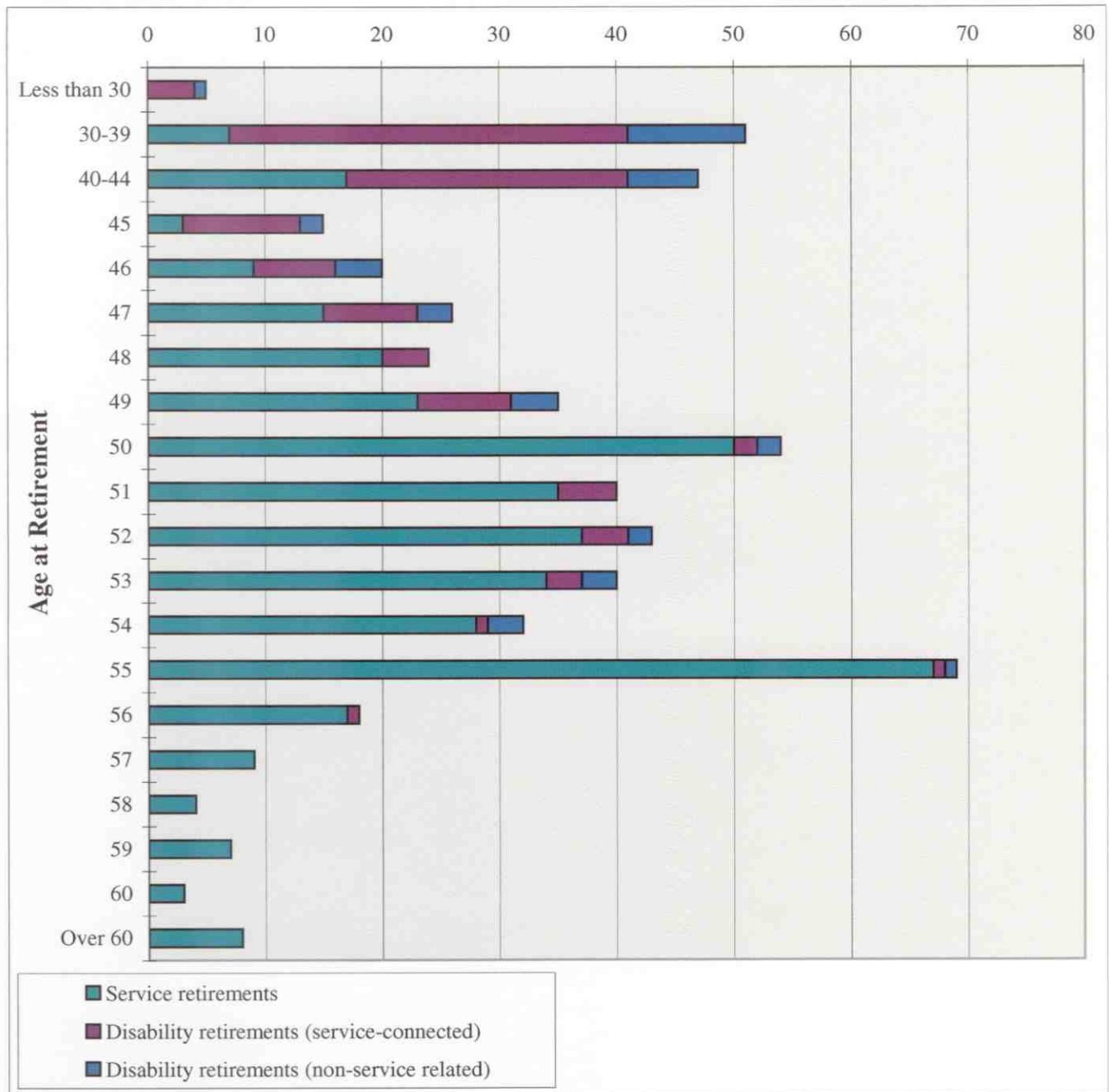
	<u>As of January 1, 2004</u>	<u>As of January 1, 2005</u>
<b>1. Active Participants</b>		
a. Fully Vested	433	482
b. Partially Vested	243	238
c. Non-Vested	154	181
d. Sub-total	<u>830</u>	<u>901</u>
<b>2. Deferred Vested Participants</b>	<b>0</b>	<b>0</b>
<b>3. Retired Participants</b>		
a. Service Retirement	387	393
b. Disability Retirement	162	157
c. Beneficiaries	199	199
d. Sub-total	<u>748</u>	<u>749</u>
<b>4. Total Participants</b>	<u><u>1,578</u></u>	<u><u>1,650</u></u>



Date	Average Service Earned	Average Attained Age	Date	Average Service Earned	Average Attained Age
1/1/2000	14.5	40.5	1/1/2004	14.9	42.2
1/1/2002	15.0	41.3	1/1/2005	15.1	41.6
1/1/2003	15.3	41.6			



Date	Average Salary Rate	Increase from Prior Year	Date	Average Salary Rate	Increase from Prior Year
1/1/2000	\$43,395	-	1/1/2004	\$46,634	4.03%
1/1/2002	\$43,970	1.33%	1/1/2005	\$46,708	0.16%
1/1/2003	\$44,828	1.95%			



**Note:** Results are based on retiree data as of January 1, 2005.

Average benefit being paid to members on service retirement is \$2,638.49 per month.

Average benefit being paid to members on disability retirement is \$2,308.52 per month.

Average benefit being paid to beneficiaries is \$1,108.64 per month.



**AGE-SERVICE-SALARY TABLE**

**TABLE XII**

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	
<b>Under 25</b>	<b>10</b>	<b>20</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>33</b>
Avg.Pay	0	23,974	19,518	0	0	0	0	0	0	0	23,393
<b>25 to 29</b>	<b>8</b>	<b>44</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>69</b>
Avg.Pay	0	24,665	28,468	0	0	0	0	0	0	0	25,725
<b>30 to 34</b>	<b>13</b>	<b>56</b>	<b>37</b>	<b>16</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>123</b>
Avg.Pay	0	31,622	36,782	45,074	43,802	0	0	0	0	0	35,425
<b>35 to 39</b>	<b>1</b>	<b>15</b>	<b>32</b>	<b>63</b>	<b>47</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>159</b>
Avg.Pay	0	31,599	37,599	46,193	49,607	3,245	0	0	0	0	43,811
<b>40 to 44</b>	<b>1</b>	<b>8</b>	<b>14</b>	<b>34</b>	<b>54</b>	<b>34</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>146</b>
Avg.Pay	0	33,237	42,302	46,168	50,085	51,102	47,420	0	0	0	47,379
<b>45 to 49</b>	<b>0</b>	<b>4</b>	<b>7</b>	<b>12</b>	<b>36</b>	<b>120</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>193</b>
Avg.Pay	0	25,211	42,475	45,093	47,386	54,436	51,363	0	0	0	51,278
<b>50 to 54</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>9</b>	<b>82</b>	<b>29</b>	<b>18</b>	<b>4</b>	<b>0</b>	<b>145</b>
Avg.Pay	0	142,797	42,407	43,544	51,798	54,255	53,975	61,591	63,959	0	55,680
<b>55 to 59</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>13</b>	<b>7</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>30</b>
Avg.Pay	0	0	0	44,970	51,589	51,059	55,740	64,201	55,792	0	54,209
<b>60 to 64</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>
Avg.Pay	0	0	0	0	0	61,107	43,913	0	53,952	0	52,991
<b>65 to 69</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
<b>70 &amp; up</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>33</b>	<b>148</b>	<b>111</b>	<b>127</b>	<b>149</b>	<b>251</b>	<b>52</b>	<b>22</b>	<b>8</b>	<b>0</b>	<b>901</b>
Avg.Pay	0	29,183	36,384	45,911	49,364	53,573	53,190	62,066	59,646	0	46,708

1. Actuarial Cost Method

Individual Entry Age Normal Cost Method

2. Decrements

- **Mortality**

Sex-distinct mortality rates set forth in the 1983 Group Annuity Mortality Table

- **Disability**

Sex-distinct disability rates derived from the 1974 study of disability experience under the Social Security system; 67% of disabilities are assumed to be service-connected. A sample of disability rates is set forth in the following tables:

*Male Rates*

<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	0.120%	30	0.190%	40	0.396%	50	1.044%
25	0.149%	35	0.264%	45	0.616%	55	1.818%

*Female Rates*

<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	0.060%	30	0.154%	40	0.382%	50	0.914%
25	0.089%	35	0.262%	45	0.580%	55	1.532%

- **Permanent Withdrawal from Active Status**

Withdrawal rates were derived from a study of actual plan experience covering the period 1982 through 1986. A sample of 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	5.454%	30	3.615%	40	1.804%	50	1.210%
25	4.218%	35	2.866%	45	1.313%	55	0.000%

- **Retirement**

Retirement is assumed to occur in accordance with the rates 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>
45	3%	49	3%	53	20%	57	10%
46	3%	50	3%	54	30%	58	10%
47	3%	51	10%	55	50%	59	10%
48	3%	52	15%	56	50%	60	100%

**3. Interest Rate**

- **Used for Calculating All Liabilities (including GASB 25/27 liabilities)**  
8.00% per annum

**4. Cost-of-Living Adjustment for Retirement Benefits**

For purposes of determining the annual cost-of-living adjustment for retirees, the Consumer Price Index is assumed to increase at the rate of 2.50% per year.

**5. Salary Increases**

Individual salaries have been assumed to increase at the rate of 4.50% compounded annually.

**6. Payroll Increase**

Total payroll has been assumed to grow at the rate of 4.50% per year for purposes of amortizing the unfunded actuarial accrued liability as a level percentage of payroll.

**7. 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 sex of the employee. Males are assumed to be three years older than females for this purpose.

**8. Expenses**

All costs and liabilities have been loaded by 1.00% to cover anticipated administrative expenses. In addition, the interest rate set forth in item 3. above is assumed to be net of investment expenses and commissions.

**9. Assets**

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 (or depreciation).

**1. Monthly Accrued Benefit**

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**  
Age 55 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 a beneficiary); or  
75% joint and contingent annuity (for those participants with a beneficiary)

*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%, and include a minimum payout equal to the employee's accumulated contributions.*

**3. Early Retirement Age and Benefit**

- **Age**  
At least 15 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)
- **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 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.

**• Amount**

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 (payable at age 55)

**• 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

**7. Pre-Retirement Death Benefit**

In the case of the death of an active or deferred vested participant (or disabled participant prior to age 55), his beneficiary(ies) will receive 75% of the monthly benefit to which the participant would have been entitled had he retired on the day before his death (or 75% of the amount the disabled participant was receiving at the time of his death). The death benefit is payable for the remaining lifetime of the participant’s eligible spouse (or to his minor children until age 18). In the case of a disabled participant, the death benefit is limited to 60% of the participant’s salary at the time of disability.

**8. Vested Percentage**

Retirement benefits become vested in accordance with the following schedule:

<b>Years of Creditable Service</b>	<b>Vested Percentage</b>
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	60%
At least 12, but less than 13	70%
At least 13, but less than 14	80%
At least 14, but less than 15	90%
At least 15	100%

**9. Average Monthly Earnings**

Average of the participant’s monthly Salary for the highest three consecutive years during his period of Creditable Service

**10. Salary**

The employee’s basic salary excluding overtime pay, but including accumulated vacation pay, sick leave bonus pay, and other similar compensation; pursuant to IRC section 401(a)(17), annual Salary is limited to \$200,000 as indexed.

**11. Employee Contribution**

All participating employees must make the required contribution to the plan. The required contribution is 7% of basic salary for those participants who have an eligible beneficiary for death benefits and 6% of basic salary for all other participants.

**12. Creditable Service**

Participants receive Creditable Service for all periods of employment with the City of Atlanta provided that the employee has made the required contribution for such period of service.

**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