

***DISTRICT OF COLUMBIA  
RETIREMENT BOARD***

***VALUATION AS OF OCTOBER 1, 2002  
FOR FISCAL YEAR 2004***

A MILLIMAN GLOBAL FIRM



**Milliman USA**  
*Consultants and Actuaries*

**June 2003**



D.C. Retirement Board  
June 10, 2003  
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I, Bill Campbell, am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Milliman USA

*William N. Campbell*

William N. Campbell, F.S.A., E.A.  
Consulting Actuary

*Kadira Coley /RAS*

Kadira Coley  
Actuarial Analyst

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Required Actuarial Certifications  
Under D.C. Code 1-907  
for Fiscal Year 2004  
(Dollars in Millions)

<u>Certification</u>	<u>Code Section</u>	<u>Teachers</u>	<u>Police</u>	<u>Fire</u>	<u>Police/Fire Combined</u>	<u>Total District</u>
FY 2004 Normal Contribution Rate	§1-907.03(a)(3)(A)	0.8%	33.6%	35.3%	34.1%	15.2%
Estimated FY 2004 Covered Payroll	NA	\$366.1	\$203.7	\$76.7	\$280.4	\$646.5
FY 2004 District Payment before §1-907.02(c)	NA	\$2.9	\$68.4	\$27.1	\$95.5	\$98.4
FY 2002 Shortfall / Overpayment	§1-907.02(c)	(\$2.9)	\$2.0	(\$1.3)	\$0.7	(\$2.2)
FY 2004 District Payment	NA	\$0.0	\$70.4	\$25.8	\$96.2	\$96.2
Present Value of Future Benefits	§1-907.03(a)(3)(B)	\$1,117.6	\$1,959.1	\$691.7	\$2,650.8	\$3,768.4
Current Value of Assets	§1-907.03(a)(3)(C)	\$733.1 <sup>1</sup>	\$774.9 <sup>1</sup>	\$309.4 <sup>1</sup>	\$1,084.3 <sup>1</sup>	\$1,817.4 <sup>1</sup>
Actuarial Value of Assets	§1-907.03(a)(3)(D)	\$860.8 <sup>1</sup>	\$916.7 <sup>1</sup>	\$362.2 <sup>1</sup>	\$1,278.9 <sup>1</sup>	\$2,139.7 <sup>1</sup>

*William N. Campbell*

William N. Campbell, F.S.A., E.A.

2/24/03

(Date)

<sup>1</sup> These amounts are net of the following benefits payable as of September 30, 2002.  
\$3.8 million for teachers, \$1.9 million for police, and \$1.0 million for fire

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# SECTION I

## BOARD SUMMARY

### Valuation Comments

The report presents the results of the October 1, 2002 actuarial valuation of the D.C. Police Officers and Fire Fighters Retirement Fund and the D.C. Teachers Retirement Fund (the funds) for the District of Columbia Retirement Board (the Board).

Prior to June 30, 1997, the Board had also been responsible for management and control of the Judges Retirement Fund. However, Title XI of the Balanced Budget Act of 1997 (Public Law 105-33, 111 stat. 251) as amended, the "National Capital Revitalization and Self-Government Improvement Act of 1997" (the "Revitalization Act"), transferred management and control of the entire Judges Retirement Fund plus benefits accrued (factoring in Average Pay at date of termination or retirement) by the police officers, fire fighters, and teachers as of June 30, 1997 to the Federal Government.

Following the Federal legislation, the District government passed the Police Officers, Fire Fighters, and Teachers Retirement Benefit Replacement Plan (D.C. Law 12-152 codified as D.C. Code section 1-907.01 et seq., the "Replacement Plan Act" that required future District contributions to be made in accordance with the actuarially sound funding method specified in the law. In general, an actuarially sound funding method requires the employer to contribute a consistent amount (such as a level percent of pay) so benefits of the current workforce will be completely paid for (i.e., funded) by the time they leave employment due to retirement, disability, death, withdrawal, etc. Under the Replacement Plan Act, the District must contribute the level percent of pay that – combined with the actuarial value of assets, expected investment earnings, and future employee contributions – will pay for the benefits by the time the workforce leaves employment. The primary purposes of performing this valuation are as follows:

- to **determine the appropriate contribution** to the Funds to be paid by the District in Fiscal Year 2004 in accordance with the Replacement Plan Act;
- to **disclose asset and liability measures**; and
- to **analyze and report on trends** in the contributions, assets, and liabilities of the Funds over the past several years.

This valuation shows that there was an increase in the District contribution between Fiscal Year 2003 and Fiscal Year 2004. The District payment increased from \$74.6 (\$68.9 certified) million to \$96.2 million, or 29.0%. As with FY 2003, the whole FY 2004 District payment is for the Police Officers and Fire Fighters Retirement Fund.

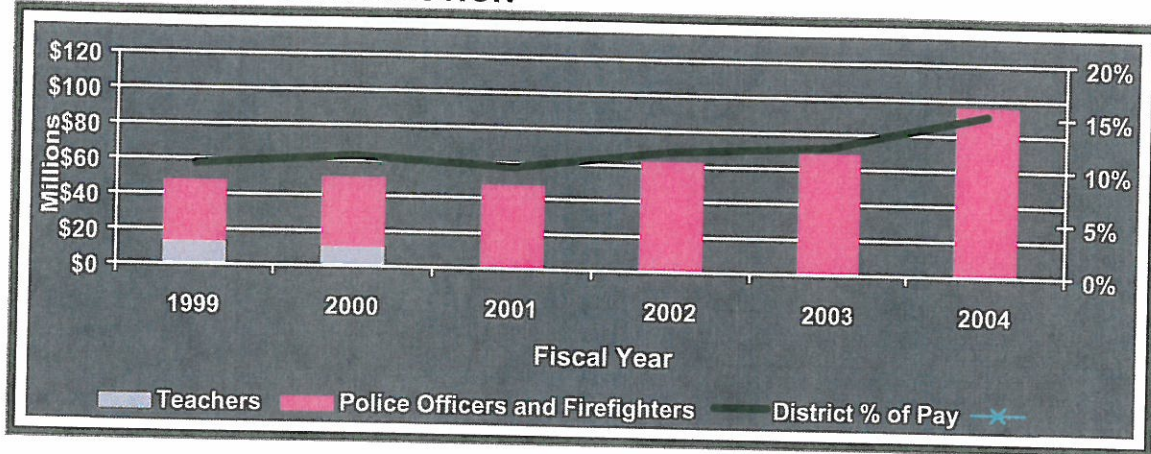
The required contribution for the Teachers Retirement Fund remains zero but is likely to be greater than zero in FY 2005 unless experience is significantly more favorable than our assumptions; for example, if investment returns substantially exceed the return assumption of 7.25%.

## BOARD SUMMARY

### Trends

One of the best ways to measure or evaluate the financial condition of a pension plan is to examine the historical trends that are evolving. Below, we present a chart which presents trend information on the District contribution rate. Our comments follow.

**Chart A: DISTRICT CONTRIBUTION**



### Comments

Chart A looks only at the District contributions for the applicable year. The District payment increased this year due to salaries for police and fire increasing more than assumed, assumption changes and lower than assumed investment returns.



**BOARD SUMMARY**

**DISTRICT OF COLUMBIA RETIREMENT BOARD  
TEACHERS' RETIREMENT FUND  
SUMMARY OF PRINCIPAL VALUATION RESULTS  
(\$ in millions)**

**Participant Data**

	October 1, 2002	October 1, 2001	Change
<b>Active Members</b>			
Hired Prior to November 16, 1996	3,736	4,009	-6.8%
Hired on or After November 16, 1996	2,822	2,694	4.8%
<b>Total</b>	<b>6,558</b>	<b>6,703</b>	<b>-2.2%</b>
Retired Members and Beneficiaries (Post 6/30/97)	1,062	829	28.1%
<b>Total Participants</b>	<b>7,620</b>	<b>7,532</b>	<b>1.2%</b>
Annual Salaries of Active Members	\$ 340.9	\$ 334.2	2.0%
Annual Retirement Benefits for Retirees & Beneficiaries (post 6/30/97)	\$ 4.5	\$ 2.9	55.2%

**Assets and Liabilities**

Present Value of Future District Benefits	\$ 1,117.6	\$ 1,094.5	2.1%
District Assets for Valuation Purposes	\$ 860.9	\$ 846.5	1.7%
Present Value of Future Employee Contributions	\$ 231.1	\$ 268.3	-13.9%
Present Value of Future District Contributions	\$ 25.6	\$ 0.0	0%
Present Value of Future Salaries	\$ 3,108.8	\$ 3,602.2	-13.7%
Current Value of District Assets	\$ 733.1	\$ 778.9	-5.9%

**Contribution Results**

	Fiscal Year 2004	Fiscal Year 2003	Change
Normal Contribution Rate	0.8%	0.0%	0.0%
Projected Payroll	\$ 366.1	\$ 358.8	2.0%
District Payment Before D.C. Code §1-907.02(c) Adjustment	\$ 2.9	\$ 0.0	0.0%
District Payment After D.C. Code §1-907.02(c) Adjustment	\$ 0.0	\$ 0.0	0.0%



## BOARD SUMMARY

### DISTRICT OF COLUMBIA RETIREMENT BOARD POLICE OFFICERS AND FIRE FIGHTERS' RETIREMENT FUND SUMMARY OF PRINCIPAL VALUATION RESULTS (\$ in millions)

#### Participant Data

	October 1, 2002	October 1, 2001	Change
<b>Active Members</b>			
Hired Prior to February 15, 1980	453	503	-9.9%
Hired Between February 15, 1980 and November 10, 1996	3,164	3,325	-4.8%
Hired on or after November 10, 1996	1,199	1,092	9.8%
<b>Total</b>	<b>4,816</b>	<b>4,920</b>	<b>-2.1%</b>
Retired Members and Beneficiaries (Post 6/30/97)	678	585	15.9%
<b>Total Participants</b>	<b>5,494</b>	<b>5,505</b>	<b>-0.2%</b>
Annual Salaries of Active Members	\$ 252.9	\$ 231.0	9.5%
Annual Retirement Benefits for Retirees & Beneficiaries (post 6/30/97)	\$ 3.2	\$ 2.3	39.1%

#### Assets and Liabilities

Present Value of Future District Benefits	\$ 2,650.7	\$ 2,334.5	13.5%
District Assets for Valuation Purposes	\$ 1,278.9	\$ 1,193.4	7.2%
Present Value of Future Employee Contributions	\$ 242.3	\$ 234.8	3.2%
Present Value of Future District Contributions	\$ 1,129.5	\$ 906.2	24.6%
Present Value of Future Salaries	\$ 3,321.7	\$ 3,237.8	2.6%
Current Value of District Assets	\$ 1,084.3	\$ 1,095.0	-1.0%

#### Contribution Results

	Fiscal Year 2004	Fiscal Year 2003	Change
Normal Contribution Rate	34.1%	27.9%	22.2%
Projected Payroll	\$ 280.4	\$ 249.9	12.2%
District Payment Before D.C. Code §1-907.02(c) Adjustment	\$ 95.5	\$ 69.8	36.8%
District Payment After D.C. Code §1-907.02(c) Adjustment	\$ 96.2	\$ 68.9	39.6%



## BOARD SUMMARY

### DISTRICT OF COLUMBIA RETIREMENT BOARD POLICE OFFICERS' PORTION OF THE POLICE OFFICERS AND FIRE FIGHTERS' RETIREMENT FUND SUMMARY OF PRINCIPAL VALUATION RESULTS (\$ in millions)

#### Participant Data

	October 1, 2002	October 1, 2001	Change
<b>Active Members<sup>1</sup></b>			
Hired Prior to February 15, 1980	237	295	-19.7%
Hired Between February 15, 1980 and November 10, 1996	2,336	2,432	-3.9%
Hired on or after November 10, 1996	970	847	14.5%
<b>Total</b>	<b>3,543</b>	<b>3,574</b>	<b>-0.9%</b>
Retired Members and Beneficiaries (Post 6/30/97)	528	449	17.6%
<b>Total Participants</b>	<b>4,071</b>	<b>4,023</b>	<b>1.2%</b>
Annual Salaries of Active Members	\$ 186.1	\$ 171.0	8.8%
Annual Retirement Benefits for Retirees & Beneficiaries (post 6/30/97)	\$ 2.1	\$ 1.4	50.0%

#### Assets and Liabilities

Present Value of Future District Benefits	\$ 1,959.1	\$ 1,728.5	13.3%
District Assets for Valuation Purposes	\$ 916.7	\$ 850.9	7.7%
Present Value of Future Employee Contributions	\$ 186.3	\$ 178.0	4.7%
Present Value of Future District Contributions	\$ 856.1	\$ 699.5	22.4%
Present Value of Future Salaries	\$ 2,547.1	\$ 2,452.3	3.9%
Current Value of District Assets	\$ 774.9	\$ 779.1	-0.5%

#### Contribution Results

	Fiscal Year 2004	Fiscal Year 2003	Change
Normal Contribution Rate	33.6%	28.5%	17.9%
Projected Payroll	\$ 203.7	\$ 185.4	9.9%
District Payment Before D.C. Code §1-907.02(c) Adjustment	\$ 68.4	\$ 52.8	29.5%
District Payment After D.C. Code §1-907.02(c) Adjustment	\$ 70.4	\$ 52.5	34.1%

<sup>1</sup> 148 police officers coded as actives were removed from the data based on a match with the October 4<sup>th</sup> payroll report. These individuals appear to be former employees who were temporarily added to the database in order to make some retroactive payments.



**DISTRICT OF COLUMBIA RETIREMENT BOARD  
FIRE FIGHTERS' PORTION OF THE  
POLICE OFFICERS AND FIRE FIGHTERS' RETIREMENT FUND  
SUMMARY OF PRINCIPAL VALUATION RESULTS  
(\$ in millions)**

**Participant Data**

	October 1, 2002	October 1, 2001	Change
<b>Active Members</b>			
Hired Prior to February 15, 1980	216	208	3.8%
Hired Between February 15, 1980 and November 10, 1996	828	893	-7.3%
Hired on or after November 10, 1996	229	245	-6.5%
<b>Total</b>	<b>1,273</b>	<b>1,346</b>	<b>-5.4%</b>
Retired Members and Beneficiaries (Post 6/30/97)	150	136	10.3%
<b>Total Participants</b>	<b>1,423</b>	<b>1,482</b>	<b>-4.0%</b>
Annual Salaries of Active Members	\$ 66.8	\$ 60.0	11.3%
Annual Retirement Benefits for Retirees & Beneficiaries (post 6/30/97)	\$ 1.1	\$ 0.9	22.2%

**Assets and Liabilities**

Present Value of Future District Benefits	\$ 691.6	\$ 606.0	14.1%
District Assets for Valuation Purposes	\$ 362.2	\$ 342.5	5.8%
Present Value of Future Employee Contributions	\$ 56.0	\$ 56.8	-1.4%
Present Value of Future District Contributions	\$ 273.4	\$ 206.7	32.3%
Present Value of Future Salaries	\$ 774.6	\$ 785.5	-1.4%
Current Value of District Assets	\$ 309.4	\$ 315.9	-2.1%

**Contribution Results**

	Fiscal Year 2004	Fiscal Year 2003	Change
Normal Contribution Rate	35.3%	26.3%	34.2%
Projected Payroll	\$ 76.7	\$ 64.5	18.9%
District Payment Before D.C. Code §1-907.02(c) Adjustment	\$ 27.1	\$ 17.0	59.4%
District Payment After D.C. Code §1-907.02(c) Adjustment	\$ 25.8	\$ 16.4	57.3%

# SECTION II

## ASSETS AND LIABILITIES



## ASSETS AND LIABILITIES

In this section we present details regarding both the Assets and Liabilities of the Fund. In the following subsections, we will summarize the following:

- a) the Current Value and Actuarial Value of District Assets;
- b) the Present Value of Future District Retirement Benefits; and
- c) the Present Value of Accrued Retirement Benefits.

### Current Value of District Assets

In this subsection, we present details with regards to the **Current Value of District Assets**.

Table II-1 traces the increases and decreases in the Current Value of District Assets from October 1, 2001 through October 1, 2002. The allocation of benefit payments and investment income between police and fire are approximations based on the most recent information available from the District of Columbia.

<b>TABLE II-1</b>					
<b>CURRENT VALUE OF DISTRICT ASSETS</b>					
<b>AS OF OCTOBER 1, 2002</b>					
<b>(\$ in millions)</b>					
	Teachers Fund	Police	Fire	Police & Fire Fund	Memo Total
1. Market Value of Assets as of October 1, 2001 <sup>1</sup>	\$ 778.9	\$ 779.1	\$ 315.9	\$ 1,095.0	\$ 1,873.9
2. FY 2002 District Contributions	0.0	56.3	18.3	74.6	74.6
3. FY 2002 Employee Contributions <sup>2</sup>	25.3	14.0	5.2	19.2	44.5
4. FY 2002 Actual Benefit Payments <sup>3</sup>	0.0	(0.2)	(0.1)	(0.3)	(0.3)
5. FY 2002 Investment Earnings	<u>(67.3)</u>	<u>(72.4)</u>	<u>(28.9)</u>	<u>(101.3)</u>	<u>(168.6)</u>
6. Actual Current Value of Assets as of October 1, 2002	\$ 736.9	\$ 776.8	\$ 310.4	\$ 1,087.2	\$ 1,824.1
7. Benefits Payable for FY 2002	(3.8)	(1.9)	(1.0)	(2.9)	(6.7)
8. Final Current Value of Assets as of October 1, 2002	\$ 733.1	\$ 774.9	\$ 309.4	\$ 1,084.3	\$ 1,817.4
9. Approximate Rate of Return	(7.9%)	(7.9%)	(7.9%)	(7.9%)	(7.9%)

<sup>1</sup> The current value of assets as of October 1, 2001 was equal to the market value less estimated fiscal year 2001 benefits payable of \$2.6 million for the teachers fund and \$2.0 million for the police officers and fire fighters fund as reported in the October 1, 2001 actuarial valuation report.

<sup>2</sup> The employee contributions for police officers and fire fighters were allocated based on their covered payroll.

<sup>3</sup> The fund paid \$4.6 million in benefits which was already reflected as benefits payable.

## ASSETS AND LIABILITIES

### Actuarial Value of District Assets

In this subsection, we present details with regards to the **Actuarial Value of District Assets**.

An actuarial value of assets is a "smoothed" value of assets based upon the market value of assets. Actuarial value, rather than market value, of assets is used to determine the District contribution.

Since the annual District contribution is based on the difference between the present value of future benefits and assets, fluctuations in assets can cause similar fluctuations in annual contributions. The use of a smoothing method for assets can help reduce the effect of market fluctuations on the District contributions.

The current actuarial value of assets method approved by the Board is the expected actuarial value of assets (assuming a 7.25% rate of return) plus 1/3 of the difference between the expected and actual market value of assets. There is then a final adjustment made for the effect of the adjustment pursuant to D.C. Code § 1-907.02(c). This adjustment is explained in further detail in Section III of this report.

Table II-2 shows the development of the Actuarial Value of District Assets as of October 1, 2002.

<b>TABLE II-2</b>					
<b>ACTUARIAL VALUE OF DISTRICT ASSETS</b>					
<b>AS OF OCTOBER 1, 2002</b>					
<b>(\$ in millions)</b>					
	Teachers Fund	Police	Fire	Police & Fire Fund	Memo Total
1. Actuarial Value of Assets as of October 1, 2001	\$ 846.5	\$ 850.9	\$ 342.5	\$ 1,193.4	\$ 2,039.9
2. FY 2002 District Contributions	0.0	56.3	18.3	74.6	74.6
3. FY 2002 Employee Contributions <sup>1</sup>	25.3	14.0	5.2	19.2	44.5
4. FY 2002 Estimated Benefit Payments	(3.8)	(2.1)	(1.1)	(3.2)	(7.0)
5. FY 2002 Expected Investment Earnings	<u>62.2</u>	<u>66.2</u>	<u>26.4</u>	<u>92.6</u>	<u>154.8</u>
6. Expected Actuarial Value of Assets as of October 1, 2002	\$ 930.2	\$ 985.3	\$ 391.3	\$ 1,376.6	\$ 2,306.8
7. Final Current Value of Assets as of October 1, 2002	<u>733.1</u>	<u>774.9</u>	<u>309.4</u>	<u>1,084.3</u>	<u>1,817.4</u>
8. Smoothed Value of Assets as of October 1, 2002 [(6.) + 1/3 x (7. - 6.)]	\$ 864.5	\$ 915.1	\$ 364.0	\$ 1,279.1	\$ 2,143.6
9. Present Value of D.C. Code §1-907.02(c) Adjustment	<u>(3.6)</u>	<u>1.6</u>	<u>(1.8)</u>	<u>(0.2)</u>	<u>(3.8)</u>
10. Final Actuarial Value of Asset as of October 1, 2002 [(8.) + (9.)]	\$ 860.9	\$ 916.7	\$ 362.2	\$ 1,278.9	\$ 2,139.8

<sup>1</sup> The employee contributions for police officers and fire fighters were allocated based on their covered payroll.



## ASSETS AND LIABILITIES

### Present Value of Future District Retirement Benefits

In this subsection, we detail the calculation of the present value of future District benefits. This calculation is necessary for developing the fiscal year 2004 District payment.

The **present value of future benefits** represents the total lump sum value on the valuation date that would be sufficient to pay for all future benefits of current participants and beneficiaries (including inactive members) considering expected future salary increases, service credits, employment termination, mortality, and cost of living adjustments.

<b>TABLE II-3</b>					
<b>PRESENT VALUE OF FUTURE DISTRICT BENEFITS</b>					
<b>AS OF OCTOBER 1, 2002</b>					
<b>(\$ in millions)</b>					
	Teachers Fund	Police	Fire	Police & Fire Fund	Memo Total
1. Active Present Value of Future District Benefits	\$ 1,039.7	\$ 1,880.4	\$ 668.5	\$ 2,548.9	\$ 3,588.6
2. Retiree Present Value of Future District Benefits	\$ 77.9	\$ 78.7	\$ 23.1	\$ 101.8	\$ 179.7
3. Total Present Value of Future District Benefits	\$ 1,117.6	\$ 1,959.1	\$ 691.6	\$ 2,650.7	\$ 3,768.3

## ASSETS AND LIABILITIES

### Present Value of Accrued District Retirement Benefits

In Table II-4, we disclose the accumulated liability of the Fund if everyone stopped working or if the Plans were terminated.

**The present value of accrued benefits** represents the total lump sum value on the valuation date that would be sufficient to pay for all benefits accrued to the valuation date.

We have one comment on the present value of accrued benefits. The fact that plan assets exceed these liabilities does not constitute “overfunding”. Under the funding method employed by the plan (as required by law), liabilities accruing each year are not paid for as earned in that year. Rather, benefits are funded in a way as to maintain a level funding pattern (as a percent of pay) between the valuation date and retirement date. The funding method for this valuation is referred to as the “aggregate” actuarial cost method. Therefore, assets are expected to exceed liabilities accrued to date early in a member’s career in order to avoid a dramatic escalation in costs for benefits earned late in a member’s career (when salary and service are highest).

	Teachers Fund	Police	Fire	Police & Fire Fund	Memo Total
1. Present Value of Accrued District Benefits as of October 1, 2002	\$ 298.9	\$ 427.3	\$ 186.0	\$ 613.3	\$ 912.2
2. Actuarial Value of Assets as of October 1, 2002 (Table II-2)	<u>860.9</u>	<u>916.7</u>	<u>362.2</u>	<u>1,278.9</u>	<u>2,139.8</u>
3. Unfunded Present Value of Accrued District Benefits (1. - 2., not less than zero)	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0

# SECTION III

## CONTRIBUTIONS



## CONTRIBUTIONS

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In this section, we develop the fiscal year 2004 District payment. The normal contribution rate developed is a percentage of active member payroll. The dollar amount of the District payment is determined by applying the contribution rate to the assumed payroll for fiscal year 2004, (based on assumed actuarial increases as shown on page B-2).

An actuarially sound funding method is designed so that the benefits of the current workforce will be completely paid for (i.e., funded) by the time they leave employment due to retirement, disability, death, withdrawal, etc. The first step in this process is to determine the present value, as of the valuation date, of all future benefits payable from the retirement funds. In the District's case, this figure is the **present value of future District benefits** developed in Table II-3.

The present value of future District benefits will be funded from three sources: assets, future employee contributions, and future District contributions. The assets, of course, are known as of the valuation date. For these purposes, actuaries, commonly use an **actuarial value of assets**.

An actuarial value of assets is a "smoothed market value" and is used to keep the contribution rate from fluctuating due to sudden upswings or downturns in the financial markets. As mentioned earlier in this report, the Board has elected to use an actuarial value of asset method for determining the annual District contribution.

The second source for paying future benefits is current employee contributions. These are specified as a fixed percentage of future pay (7% or 8%, depending upon hire date).

Future District contributions must make up any difference between the future District benefits and the actuarial value of assets plus future employee contributions. Thus, the value of future **District contributions** is the present value of future District benefits less the actuarial value of assets less the present value of future employee contributions.

The future District contributions are spread over the future payroll of the workforce to determine the **normal contribution rate**. The District contribution applicable to the fiscal year is the normal contribution rate times the projected payroll.

Finally, the District payment reflects the adjustment pursuant to D.C. Code §1-907.02(c). Further explanation of this adjustment can be found on page III-3.

## CONTRIBUTIONS

### Development of the Fiscal Year 2004 District Payment

Table III-1 shows the development of the fiscal year 2004 District payment.

<b>TABLE III-1</b>					
<b>FY 2004 PAYMENT</b>					
<b>(\$ in millions)</b>					
	Teachers Fund	Police	Fire	Police & Fire Fund	Memo Total
1. Present Value of Future District Benefits	\$ 1,117.6	\$ 1,959.1	\$ 691.7	\$ 2,650.8	\$ 3,768.3
2. Actuarial Value of Assets	860.9	916.7	362.2	1,278.9	2,139.8
3. Present Value of Future Employee Contributions	<u>231.1</u>	<u>186.3</u>	<u>56.0</u>	<u>242.3</u>	<u>473.4</u>
4. Present Value of Future Normal Costs [(1) - (2) - (3), not less than \$0]	\$ 25.6	\$ 856.1	\$ 273.5	\$ 1,129.6	\$ 1,155.1
5. Present Value of Future Payroll	\$ 3,062.8	\$ 2,547.1	\$ 774.6	\$ 3,321.7	\$ 6,384.5
6. Normal Contribution Rate [(4) / (5)]	0.8%	33.6%	35.3%	34.1%	N/A
7. Projected FY 2004 Payroll	\$ 366.1	\$ 203.7	\$ 76.7	\$ 280.4	\$ 646.5
8. FY 2004 District Payment Before §1-907.02(c) [(6) x (7)]	\$ 2.9	\$ 68.4	\$ 27.1	\$ 95.5	\$ 98.4
9. D.C. Code §1-907.02(c) Adjustment	<u>(3.9)<sup>1</sup></u>	<u>2.0</u>	<u>(1.3)</u>	<u>0.7</u>	<u>(2.2)</u>
10. FY 2004 Payment [(8) + (9), not less than \$0]	\$ 0.0	\$ 70.4	\$ 25.8	\$ 96.2	\$ 96.2

- 1 The actual teachers D.C. Code §1-907.02(c) adjustment is \$(3.9). Since the FY 2004 District payment is \$2.9, the full adjustment cannot be applied, and \$(1.0) will be carried forward for use in future years.



## CONTRIBUTIONS

### §1-907.02(c) Adjustment to the Fiscal Year 2004 District Payment

Beginning in fiscal year 2001, the District payment was adjusted pursuant to D.C. Code §1-907.02(c). This section stipulates that "... the enrolled actuary shall determine whether the amount appropriated for the applicable fiscal year resulted in an overpayment or a shortfall based upon the actual covered payroll."

The D.C. Code §1-907.02(c) adjustment to the fiscal year 2004 District payment is calculated by taking the actual fiscal year 2002 covered payroll for each employee class (which is provided by the District) and then multiplying by the fiscal year 2002 normal contribution rates for each employee class, which were certified in our October 1, 2000 report. This result gives the fiscal year 2002 contribution that was **required** to be made by the District. The required contribution is then compared to the fiscal year 2002 contribution that was **actually paid** by the District. The difference between the required and actual contributions is the preliminary D.C. Code §1-907.02(c) adjustment.

For FY 2003 the teachers had a credit balance of \$3.9 million. However, this amount was not needed for Fiscal Year 2003 due to a zero District payment. Any carryover amount can be applied to the required teachers payment in future years.

Table III-2 shows the development of the D.C. Code §1-907.02(c) adjustment for each employee class.

<b>TABLE III-2</b>			
<b>D.C. CODE §1-907.02(c) ADJUSTMENT TO THE FY 2004 PAYMENT</b>			
<b>(\$ in millions)</b>			
	Teachers	Police	Fire
1. Actual FY 2002 Covered Payroll	\$ 324.9	\$ 192.9	\$ 62.9
2. FY 2002 Normal Contribution Rate <sup>1</sup>	0.3%	22.9%	28.4%
3. Actual FY 2002 Contribution Required	\$ 1.0	\$ 44.2	\$ 17.9
4. Actual FY 2002 Contribution Paid	<u>1.0</u>	<u>42.2</u>	<u>19.2</u>
5. Preliminary D.C. Code §1-907.02(c) Adjustment to FY 2004 Payment [(3) - (4)]	\$ 0.0	\$ 2.0	\$ (1.3)
6. FY 2003 Unrecognized Amount	<u>(3.9)</u>	<u>0.0</u>	<u>0.0</u>
7. Final D.C. Code §1-907.02(c) Adjustment to FY 2004 Payment [(5) + (6)]	\$ (3.9)	\$ 2.0	\$ (1.3)

<sup>1</sup> Includes 0.6% for police and 0.8% of pay for fire for changes in benefits



## APPENDICES

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Appendix A.....	Membership Data and Profile
Appendix B.....	Actuarial Assumptions and Procedures
Appendix C.....	Summary of the Provisions of the Program
Appendix D.....	Auditor's Information

# APPENDIX A

## MEMBERSHIP DATA AND PROFILE

## **APPENDIX A - MEMBERSHIP DATA AND PROFILE**

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The District of Columbia's Office of Pay and Retirement Services provided the actuary with membership data as of September 30, 2002. Assumptions were made on elements missing from the data provided.

## APPENDIX A - MEMBERSHIP DATA AND PROFILE

<b>RETIRED MEMBERSHIP STATISTICS</b> <b>AS OF SEPTEMBER 30, 2002</b> <b>AVERAGE ANNUITY BY RETIREMENT TYPE</b>			
	Teachers	Police	Fire
<b>Total Benefits</b>			
Number of Service Retirements	4,396	3,145	916
Average Service Annuity	\$ 33,742	\$ 39,895	\$ 48,274
Number of Disability Retirements	493	1,343	571
Average Disability Annuity	\$ 24,078	\$ 35,889	\$ 41,690
Number of Survivors	445	1,222	492
Average Survivor Annuity	\$ 15,739	\$ 19,680	\$ 21,812
<b>Federal Benefits</b>			
Number of Service Retirements <sup>1)</sup>	4,396	3,145	916
Estimated Average Service Annuity	\$ 32,999	\$ 39,589	\$ 47,690
Number of Disability Retirements <sup>1)</sup>	493	1,343	571
Average Disability Annuity	\$ 21,618	\$ 35,025	\$ 40,698
Number of Survivors <sup>1)</sup>	445	1,222	492
Average Survivor Annuity	\$ 15,739	\$ 19,680	\$ 21,812
<b>District Benefits</b>			
Number of Service Retirements	1,010	423	97
Estimated Average District Service Annuity	\$ 3,235	\$ 2,271	\$ 5,515
Number of Disability Retirements	52	105	53
Average District Disability Annuity	\$ 22,322	\$ 11,052	\$ 10,683
Number of Survivors <sup>2)</sup>	0	0	0
Average District Survivor Annuity	\$ 0	\$ 0	\$ 0

<b>ACTIVE MEMBERSHIP STATISTICS</b> <b>AS OF SEPTEMBER 30, 2002</b>			
Employee Class	Average Age	Average Service	Average Salary
Teachers	45.4	13.6	\$ 52,300
Police	37.5	11.7	\$ 53,600
Fire	38.8	14.6	\$ 54,200

<sup>1)</sup> Includes participants who are the responsibility of both the Federal and District Governments.

<sup>2)</sup> There is no survivor information for the District Inactive participants in the data received from OPRS.



### Data Assumptions

The following assumptions were made with respect to information provided by the District of Columbia:

(a) **Active Members**

Data for active members was predominantly used as provided by the District. No active teachers or fire fighters were eliminated from the data. 148 active police officers were removed from the data so the number of officers in the valuation would correspond to the number of officers in the October 4, 2002 payroll data export. These individuals appear to be former employees who were temporarily added to the database in order to make some retroactive payments.

**Teachers**

Charter school teachers data is not available so the active liabilities and payroll were increased by 1.5%.

(b) **Former Members**

The data submitted for former members included participants who have withdrawn contributions and are no longer entitled to a deferred benefit. After further investigation and consultation with staff members of the Board, we have made the following assumptions regarding former Members:

**Teachers**

An examination of a little more than one-third of the records of former teachers on file yielded nine teachers who are entitled to a deferred benefit. Consequently, we have assumed that there are 25 teachers with deferred vested benefits, all females age 50 with fifteen years of service and a final salary of \$48,720.

**Police/Fire**

Since practically all police officers and fire fighters withdraw their contributions if they terminate prior to retirement, we have assumed that there are no police officers or fire fighters with a deferred vested benefit.

(c) **Retired Members**

All retired members whose gender was not on file were designed by the letter C. These retirees were assumed to be all male (with female spouses) for the police officers and fire fighters' program and assumed to be all female (with male spouses) for the teachers' program. Members are assumed to have recovered all contributions if they have been receiving benefits for more than 3 years (teachers) or 2 years (police/fire).

The Board provided the fiscal year 2002 employee and District contributions for all three classes of employees. We allocated the contributions between police officers and fire fighters based on payroll.

# APPENDIX A - MEMBERSHIP DATA AND PROFILE

## District of Columbia Teachers' Retirement Fund

SCHEDULE OF ACTIVE PARTICIPANTS HIRED BEFORE NOVEMBER 16, 1996										
	Years of Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	Over 40	
Under 20	0	0	0	0	0	0	0	0	0	0
20 - 24	0	0	0	0	0	0	0	0	0	0
25 - 29	0	11	0	0	0	0	0	0	0	11
30-34	0	97	27	4	0	0	0	0	0	128
35-39	0	67	88	44	0	0	0	0	0	199
40-44	0	56	103	122	21	0	0	0	0	302
45-49	0	51	118	206	126	43	0	0	0	544
50-54	0	49	121	202	126	254	206	12	0	970
55-59	0	34	72	118	64	115	488	155	3	1,049
60-64	0	14	52	48	26	30	82	124	12	388
Over 65	<u>0</u>	<u>5</u>	<u>18</u>	<u>22</u>	<u>8</u>	<u>5</u>	<u>17</u>	<u>34</u>	<u>36</u>	<u>145</u>
Total	0	384	599	766	371	447	793	325	51	3,736

SCHEDULE OF ACTIVE PARTICIPANTS HIRED ON OR AFTER NOVEMBER 16, 1996										
	Years of Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	Over 40	
Under 20	2	0	0	0	0	0	0	0	0	2
20 - 24	211	0	0	0	0	0	0	0	0	211
25 - 29	710	24	0	0	0	0	0	0	0	734
30-34	559	56	0	0	0	0	0	0	0	615
35-39	264	30	0	0	0	0	0	0	0	294
40-44	223	23	0	0	0	0	0	0	0	246
45-49	221	23	0	0	0	0	0	0	0	244
50-54	210	26	0	0	0	0	0	0	0	236
55-59	136	22	0	0	0	0	0	0	0	158
60-64	51	5	0	0	0	0	0	0	0	56
Over 65	<u>21</u>	<u>5</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>26</u>
Total	2,608	214	0	0	0	0	0	0	0	2,822

SCHEDULE OF ALL ACTIVE PARTICIPANTS										
	Years of Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	Over 40	
Under 20	2	0	0	0	0	0	0	0	0	2
20 - 24	211	0	0	0	0	0	0	0	0	211
25 - 29	710	35	0	0	0	0	0	0	0	745
30-34	559	153	27	4	0	0	0	0	0	743
35-39	264	97	88	44	0	0	0	0	0	493
40-44	223	79	103	122	21	0	0	0	0	548
45-49	221	74	118	206	126	43	0	0	0	788
50-54	210	75	121	202	126	254	206	12	0	1,206
55-59	136	56	72	118	64	115	488	155	3	1,207
60-64	51	19	52	48	26	30	82	124	12	444
Over 65	<u>21</u>	<u>10</u>	<u>18</u>	<u>22</u>	<u>8</u>	<u>5</u>	<u>17</u>	<u>34</u>	<u>36</u>	<u>171</u>
Total	2,608	598	599	766	371	447	793	325	51	6,558



## APPENDIX A - MEMBERSHIP DATA AND PROFILE

### District of Columbia Teachers' Retirement Fund

SCHEDULE OF AVERAGE SALARIES FOR ACTIVES HIRED BEFORE NOVEMBER 16, 1996									
	Years of Service								
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	Over 40
Under 20	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
20 - 24	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
25 - 29	\$ 0	\$ 45,968	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
30-34	\$ 0	\$ 43,990	\$ 47,372	\$ 48,994	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
35-39	\$ 0	\$ 46,580	\$ 51,615	\$ 57,800	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
40-44	\$ 0	\$ 48,961	\$ 55,282	\$ 59,243	\$ 59,549	\$ 0	\$ 0	\$ 0	\$ 0
45-49	\$ 0	\$ 52,448	\$ 58,901	\$ 60,523	\$ 61,861	\$ 62,770	\$ 0	\$ 0	\$ 0
50-54	\$ 0	\$ 52,614	\$ 58,945	\$ 62,544	\$ 63,482	\$ 64,036	\$ 63,924	\$ 66,600	\$ 0
55-59	\$ 0	\$ 51,759	\$ 58,181	\$ 62,197	\$ 62,615	\$ 65,080	\$ 64,895	\$ 67,002	\$ 59,573
60-64	\$ 0	\$ 48,228	\$ 59,639	\$ 60,704	\$ 61,144	\$ 63,312	\$ 62,800	\$ 63,996	\$ 69,804
Over 65	\$ 0	\$ 54,210	\$ 60,276	\$ 63,149	\$ 62,120	\$ 64,276	\$ 62,995	\$ 65,538	\$ 65,700
Total	\$ 0	\$ 48,423	\$ 56,716	\$ 60,980	\$ 62,366	\$ 64,137	\$ 64,385	\$ 65,687	\$ 66,305

SCHEDULE OF AVERAGE SALARIES FOR ACTIVES HIRED ON OR AFTER NOVEMBER 16, 1996									
	Years of Service								
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	Over 40
Under 20	\$ 26,434	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
20 - 24	\$ 33,176	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
25 - 29	\$ 36,293	\$ 40,137	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
30-34	\$ 40,361	\$ 41,480	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
35-39	\$ 42,183	\$ 47,458	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
40-44	\$ 44,492	\$ 48,555	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
45-49	\$ 45,220	\$ 49,941	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
50-54	\$ 47,400	\$ 46,005	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
55-59	\$ 50,819	\$ 50,537	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
60-64	\$ 48,895	\$ 53,303	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Over 65	\$ 46,299	\$ 56,784	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Total	\$ 40,938	\$ 45,952	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

## APPENDIX A - MEMBERSHIP DATA AND PROFILE

### District of Columbia Police Officers' and Fire Fighters' Retirement Fund

SCHEDULE OF ACTIVE POLICE OFFICERS HIRED BEFORE NOVEMBER 16, 1996										
	Years of Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	Over 40	
Under 20	0	0	0	0	0	0	0	0	0	0
20 - 24	0	0	0	0	0	0	0	0	0	0
25 - 29	0	36	4	0	0	0	0	0	0	40
30-34	0	106	285	12	0	0	0	0	0	403
35-39	0	77	753	98	0	0	0	0	0	928
40-44	0	17	301	294	87	0	0	0	0	699
45-49	0	2	32	83	168	56	6	0	0	347
50-54	0	0	0	2	49	17	39	4	0	111
55-59	0	0	0	0	1	3	20	12	0	36
60-64	0	0	0	0	0	0	3	3	0	6
Over 65	0	3	0	0	0	0	0	0	0	3
<b>Total</b>	<b>0</b>	<b>241</b>	<b>1,375</b>	<b>489</b>	<b>305</b>	<b>76</b>	<b>68</b>	<b>19</b>	<b>0</b>	<b>2,573</b>

SCHEDULE OF ACTIVE POLICE OFFICERS HIRED ON OR AFTER NOVEMBER 16, 1996										
	Years of Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	Over 40	
Under 20	0	0	0	0	0	0	0	0	0	0
20 - 24	62	0	0	0	0	0	0	0	0	62
25 - 29	280	69	0	0	0	0	0	0	0	349
30-34	230	96	0	0	0	0	0	0	0	326
35-39	113	32	0	0	0	0	0	0	0	145
40-44	47	7	0	0	0	0	0	0	0	54
45-49	15	6	0	0	0	0	0	0	0	21
50-54	7	2	0	0	0	0	0	0	0	9
55-59	2	1	0	0	0	0	0	0	0	3
60-64	0	0	0	0	0	0	0	0	0	0
Over 65	1	3	0	0	0	0	0	0	0	1
<b>Total</b>	<b>757</b>	<b>454</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>970</b>

SCHEDULE OF ALL ACTIVE POLICE OFFICERS										
	Years of Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	Over 40	
Under 20	0	0	0	0	0	0	0	0	0	0
20 - 24	62	0	0	0	0	0	0	0	0	62
25 - 29	280	105	4	0	0	0	0	0	0	389
30-34	230	202	285	12	0	0	0	0	0	729
35-39	113	109	753	98	0	0	0	0	0	1,073
40-44	47	24	301	294	87	0	0	0	0	753
45-49	15	8	32	83	168	56	6	0	0	368
50-54	7	2	0	2	49	17	39	4	0	120
55-59	2	1	0	0	1	3	20	12	0	39
60-64	0	0	0	0	0	0	3	3	0	6
Over 65	1	3	0	0	0	0	0	0	0	4
<b>Total</b>	<b>757</b>	<b>454</b>	<b>1,375</b>	<b>489</b>	<b>305</b>	<b>76</b>	<b>68</b>	<b>19</b>	<b>0</b>	<b>3,543</b>



## APPENDIX A - MEMBERSHIP DATA AND PROFILE

### District of Columbia Police Officers and Fire Fighters' Retirement Fund

SCHEDULE OF AVERAGE SALARIES FOR ACTIVE POLICE OFFICERS HIRED BEFORE NOVEMBER 16, 1996										
Years of Service										
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	Over 40	
Under 20	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
20 - 24	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
25 - 29	\$ 0	\$ 50,808	\$ 51,016	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
30-34	\$ 0	\$ 50,962	\$ 53,451	\$ 54,317	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
35-39	\$ 0	\$ 51,279	\$ 54,749	\$ 58,301	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
40-44	\$ 0	\$ 51,043	\$ 54,520	\$ 60,589	\$ 65,039	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
45-49	\$ 0	\$ 50,211	\$ 54,896	\$ 60,391	\$ 68,875	\$ 69,613	\$ 67,798	\$ 0	\$ 0	\$ 0
50-54	\$ 0	\$ 0	\$ 0	\$ 60,614	\$ 68,910	\$ 68,240	\$ 73,006	\$ 70,894	\$ 0	\$ 0
55-59	\$ 0	\$ 0	\$ 0	\$ 0	\$ 71,604	\$ 68,982	\$ 71,722	\$ 64,362	\$ 0	\$ 0
60-64	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 68,496	\$ 70,803	\$ 0	\$ 0
Over 65	\$ 0	\$ 54,583	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
<b>Total</b>	\$ 0	\$ 51,085	\$ 54,423	\$ 59,943	\$ 67,795	\$ 69,281	\$ 71,970	\$ 66,754	\$ 0	\$ 0

SCHEDULE OF AVERAGE SALARIES FOR ACTIVE POLICE OFFICERS HIRED ON OR AFTER NOVEMBER 16, 1996										
Years of Service										
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	Over 40	
Under 20	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
20 - 24	\$ 38,884	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
25 - 29	\$ 42,363	\$ 46,445	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
30-34	\$ 42,890	\$ 46,866	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
35-39	\$ 44,586	\$ 48,089	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
40-44	\$ 45,806	\$ 46,993	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
45-49	\$ 44,792	\$ 47,995	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
50-54	\$ 50,461	\$ 98,909	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
55-59	\$ 83,254	\$ 49,068	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
60-64	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Over 65	\$ 45,541	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
<b>Total</b>	\$ 43,019	\$ 47,448	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

## APPENDIX A - MEMBERSHIP DATA AND PROFILE

### District of Columbia Police Officers and Fire Fighters' Retirement Fund

SCHEDULE OF AVERAGE SALARIES FOR ACTIVE FIRE FIGHTERS HIRED BEFORE NOVEMBER 16, 1996									
	Years of Service								
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	Over 40
Under 20	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
20 - 24	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
25 - 29	\$ 0	\$ 39,405	\$ 46,916	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
30-34	\$ 0	\$ 43,837	\$ 48,229	\$ 51,583	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
35-39	\$ 0	\$ 44,818	\$ 48,687	\$ 56,904	\$ 55,424	\$ 0	\$ 0	\$ 0	\$ 0
40-44	\$ 0	\$ 51,957	\$ 50,497	\$ 59,359	\$ 64,256	\$ 62,847	\$ 0	\$ 0	\$ 0
45-49	\$ 0	\$ 0	\$ 49,725	\$ 60,019	\$ 68,597	\$ 73,728	\$ 59,401	\$ 0	\$ 0
50-54	\$ 0	\$ 0	\$ 0	\$ 52,797	\$ 69,851	\$ 78,930	\$ 80,947	\$ 0	\$ 0
55-59	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 90,857	\$ 89,718	\$ 86,677	\$ 0
60-64	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 100,817
Over 65	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
<b>Total</b>	\$ 0	\$ 45,198	\$ 48,659	\$ 57,956	\$ 66,974	\$ 75,072	\$ 82,124	\$ 86,677	\$ 100,817

SCHEDULE OF AVERAGE SALARIES FOR ACTIVE FIRE FIGHTERS HIRED ON OR AFTER NOVEMBER 16, 1996									
	Years of Service								
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	Over 40
Under 20	\$ 36,486	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
20 - 24	\$ 37,724	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
25 - 29	\$ 38,341	\$ 39,405	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
30-34	\$ 38,180	\$ 42,783	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
35-39	\$ 39,405	\$ 43,575	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
40-44	\$ 79,807	\$ 43,388	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
45-49	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
50-54	\$ 119,803	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
55-59	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
60-64	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Over 65	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
<b>Total</b>	\$ 39,597	\$ 42,900	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

## APPENDIX A - MEMBERSHIP DATA AND PROFILE

### District of Columbia Teachers' Retirement Fund

AGE-BENEFIT DISTRIBUTION OF RETIREES AND BENEFICIARIES ESTIMATED BENEFITS PAYABLE BY THE DISTRICT OF COLUMBIA					
Age	Count	Annual Benefits	Age	Count	Annual Benefits
Under 24	0	0	54	16	234,183
25	0	0	55	20	262,101
26	0	0	56	65	298,500
27	0	0	57	79	404,715
28	0	0	58	113	536,897
29	0	0	59	117	371,051
30	0	0	60	116	383,074
31	0	0	61	82	267,282
32	1	16,920	62	59	211,416
33	0	0	63	72	271,626
34	0	0	64	71	240,683
35	0	0	65	57	149,128
36	0	0	66	47	124,513
37	0	0	67	25	77,023
38	0	0	68	20	62,291
39	1	18,276	69	17	43,034
40	0	0	70	19	56,866
41	0	0	71	9	30,573
42	0	0	72	15	52,091
43	0	0	73	10	25,755
44	0	0	74	2	5,478
45	0	0	75	3	7,745
46	1	15,192	76	2	5,369
47	1	22,056	77	2	2,343
48	2	38,256	78	0	0
49	3	71,712	79	1	8,924
50	2	45,660	80	1	3,666
51	1	20,592			
52	2	29,253			
53	8	66,199			
<b>Totals:</b>				<b>1,062</b>	<b>4,480,443</b>



# APPENDIX A - MEMBERSHIP DATA AND PROFILE

## District of Columbia Teachers' Retirement Fund

AGE-BENEFIT DISTRIBUTION OF RETIREES AND BENEFICIARIES ESTIMATED BENEFITS PAYABLE BY THE FEDERAL GOVERNMENT					
Age	Count	Annual Benefits	Age	Count	Annual Benefits
Under 24	49	\$235,428	69	197	6,663,586
25	0	0	70	192	6,160,706
26	1	50,784	71	200	6,069,747
27	0	0	72	208	6,597,541
28	0	0	73	192	5,722,341
29	0	0	74	146	4,298,346
30	0	0	75	153	4,735,015
31	0	0	76	171	5,082,655
32	3	8,916	77	129	3,734,553
33	0	0	78	124	3,648,120
34	1	43,860	79	116	3,382,792
35	1	37,764	80	140	4,364,526
36	0	0	81	118	3,574,524
37	1	1,476	82	110	3,506,184
38	0	0	83	92	2,874,468
39	1	0	84	74	2,325,252
40	0	0	85	96	2,987,196
41	4	61,140	86	76	2,344,128
42	2	59,832	87	72	2,406,036
43	2	22,740	88	67	2,082,768
44	3	21,840	89	50	1,702,944
45	2	35,748	90	59	2,041,308
46	4	60,240	91	43	1,504,404
47	6	43,980	92	40	1,328,928
48	3	19,080	93	26	794,508
49	4	7,757	94	30	929,136
50	5	66,780	95	29	1,100,424
51	5	61,560	96	20	757,092
52	9	95,523	97	8	314,388
53	10	126,629	98	9	318,828
54	32	551,781	99	8	400,980
55	36	539,931	100 & Over	10	359,280
56	93	2,430,324			
57	94	2,580,861			
58	156	4,484,899			
59	164	5,008,945			
60	176	5,306,594			
61	168	5,365,398			
62	154	4,783,257			
63	153	4,692,966			
64	196	6,325,633			
65	193	6,151,328			
66	195	6,271,991			
67	205	6,727,169			
68	198	6,328,705			
<b>Totals:</b>				<b>5,334</b>	<b>\$162,723,563</b>

## APPENDIX A - MEMBERSHIP DATA AND PROFILE

### District of Columbia Police Officers and Fire Fighters' Retirement Fund

AGE-BENEFIT DISTRIBUTION OF RETIREES AND BENEFICIARIES					
POLICE OFFICERS' BENEFITS PAYABLE IN TOTAL					
Age	Count	Annual Benefits	Age	Count	Annual Benefits
Under 24	109	487,020	69	86	3,079,917
25	0	0	70	75	2,983,049
26	0	0	71	72	2,786,985
27	1	16,176	72	91	3,480,211
28	0	0	73	74	2,737,449
29	0	0	74	89	3,476,865
30	2	25,728	75	107	4,280,498
31	1	2,964	76	85	3,366,890
32	6	150,300	77	72	2,834,659
33	7	163,872	78	74	2,842,246
34	7	158,484	79	72	2,509,037
35	8	165,120	80	56	1,962,764
36	9	193,068	81	53	1,716,317
37	12	249,156	82	38	1,271,724
38	6	136,128	83	46	1,408,084
39	6	100,608	84	56	1,845,148
40	15	309,660	85	46	1,612,495
41	10	190,104	86	40	1,202,697
42	14	300,720	87	40	1,442,848
43	14	212,195	88	37	1,214,010
44	16	335,541	89	21	593,400
45	29	688,645	90	23	855,283
46	37	1,100,305	91	19	647,159
47	51	1,610,693	92	13	384,778
48	72	2,396,272	93	13	402,656
49	104	3,576,930	94	10	393,424
50	135	4,537,730	95	6	138,918
51	192	6,532,338	96	8	196,572
52	210	7,242,321	97	3	84,720
53	223	8,054,190	98	3	43,836
54	237	8,352,354	99	1	16,476
55	313	10,893,360	100 & Over	3	58,356
56	375	13,825,757			
57	230	8,082,373			
58	235	8,452,678			
59	207	7,475,775			
60	210	7,349,114			
61	166	6,059,347			
62	159	5,857,930			
63	172	6,345,739			
64	153	5,361,859			
65	151	5,424,416			
66	119	4,327,257			
67	146	5,202,116			
68	109	4,121,987			
<b>Totals:</b>				<b>5,710</b>	<b>\$197,937,801</b>

## APPENDIX A - MEMBERSHIP DATA AND PROFILE

### District of Columbia Police Officers and Fire Fighters' Retirement Fund

AGE-BENEFIT DISTRIBUTION OF RETIREES AND BENEFICIARIES POLICE OFFICERS' BENEFITS PAYABLE BY THE DISTRICT OF COLUMBIA					
Age	Count	Annual Benefits	Age	Count	Annual Benefits
Under 24	0	0	49	41	110,180
25	0	0	50	47	109,839
26	0	0	51	48	133,720
27	1	16,176	52	48	96,427
28	0	0	53	39	85,467
29	0	0	54	39	87,308
30	1	20,496	55	39	45,272
31	0	0	56	22	34,201
32	5	84,828	57	17	36,995
33	4	34,356	58	11	21,092
34	2	55,068	59	10	37,837
35	5	55,752	60	8	5,219
36	7	77,928	61	2	5,928
37	6	109,800	62	1	9,078
38	5	72,876	63	2	0
39	3	50,820	64	0	0
40	7	86,760	65	0	0
41	1	0	66	0	0
42	7	122,256	67	0	0
43	1	37,728	68	0	0
44	4	50,484			
45	9	40,262	69	1	0
46	21	136,732			
47	29	76,689			
48	35	173,572			
<b>Totals:</b>				<b>528</b>	<b>2,121,146</b>



## APPENDIX A - MEMBERSHIP DATA AND PROFILE

### District of Columbia Police Officers and Fire Fighters' Retirement Fund

AGE-BENEFIT DISTRIBUTION OF RETIREES AND BENEFICIARIES					
FIRE FIGHTERS' BENEFITS PAYABLE IN TOTAL					
Age	Count	Annual Benefits	Age	Count	Annual Benefits
Under 24	41	142,860	69	49	2,153,945
25	0	0	70	34	1,378,800
26	0	0	71	33	1,329,824
27	0	0	72	41	1,540,478
28	0	0	73	53	2,220,820
29	0	0	74	45	2,004,934
30	0	0	75	40	1,780,166
31	1	16,476	76	48	1,989,884
32	0	0	77	29	1,301,525
33	1	26,424	78	41	1,618,581
34	1	15,288	79	25	985,725
35	0	0	80	28	1,206,977
36	0	0	81	37	1,485,868
37	1	16,392	82	30	1,038,406
38	2	68,388	83	27	1,016,261
39	1	21,912	84	36	1,527,035
40	2	36,024	85	25	1,116,268
41	2	22,993	86	27	1,013,675
42	3	51,576	87	19	732,794
43	4	54,252	88	13	584,581
44	4	77,112	89	10	347,918
45	6	132,394	90	13	397,435
46	8	240,991	91	7	257,746
47	6	170,052	92	10	279,878
48	18	547,654	93	9	350,929
49	26	845,881	94	6	200,002
50	28	983,181	95	4	79,476
51	24	865,955	96	3	54,372
52	30	1,225,688	97	0	0
53	37	1,615,823	98	2	26,232
54	34	1,463,775	99	0	0
55	41	1,577,338	100 & Over	3	57,28
56	73	3,159,304			
57	71	2,986,905			
58	68	2,993,633			
59	63	2,811,481			
60	66	2,778,510			
61	88	3,462,717			
62	85	3,650,350			
63	93	4,102,301			
64	74	3,114,583			
65	62	2,469,519			
66	53	2,305,542			
67	65	2,602,446			
68	49	1,996,573			
<b>Totals:</b>				<b>1,978</b>	<b>\$78,730,056</b>

## APPENDIX A - MEMBERSHIP DATA AND PROFILE

### District of Columbia Police Officers and Fire Fighters' Retirement Fund

AGE-BENEFIT DISTRIBUTION OF RETIREES AND BENEFICIARIES FIRE FIGHTERS' BENEFITS PAYABLE BY THE DISTRICT OF COLUMBIA					
Age	Count	Annual Benefits	Age	Count	Annual Benefits
Under 24	0	0	49	14	188,146
25	0	0	50	10	55,595
26	0	0	51	10	53,413
27	0	0	52	16	80,086
28	0	0	53	16	86,380
29	0	0	54	9	48,154
30	0	0	55	5	25,168
31	0	0	56	14	72,358
32	0	0	57	8	25,412
33	1	26,424	58	7	33,607
34	1	15,288	59	8	16,792
35	0	0	60	3	12,504
36	0	0	61	1	4,745
37	1	16,392	62	1	5,745
38	0	0	63	2	0
39	0	0	64	1	0
40	0	0			
41	1	17,604			
42	0	0			
43	0	0			
44	2	40,668			
45	2	9,890			
46	6	139,587			
47	5	86,065			
48	6	41,153			
<b>Totals:</b>				<b>150</b>	<b>1,101,176</b>



## APPENDIX A - MEMBERSHIP DATA AND PROFILE

### District of Columbia Police Officers and Fire Fighters' Retirement Fund

AGE-BENEFIT DISTRIBUTION OF RETIREES AND BENEFICIARIES FIRE FIGHTERS' BENEFITS PAYABLE BY THE FEDERAL GOVERNMENT					
Age	Count	Annual Benefits	Age	Count	Annual Benefits
Under 24	41	\$142,860	69	49	2,153,945
25	0	0	70	34	1,378,800
26	0	0	71	33	1,329,824
27	0	0	72	41	1,540,478
28	0	0	73	53	2,220,820
29	0	0	74	45	2,004,934
30	0	0	75	40	1,780,166
31	1	16,476	76	48	1,989,884
32	0	0	77	29	1,301,525
33	1	0	78	41	1,618,581
34	1	0	79	25	985,725
35	0	0	80	28	1,206,977
36	0	0	81	37	1,485,868
37	1	0	82	30	1,038,406
38	2	68,388	83	27	1,016,261
39	1	21,912	84	36	1,527,035
40	2	36,024	85	25	1,116,268
41	2	5,389	86	27	1,013,675
42	3	51,576	87	19	732,794
43	4	54,252	88	13	584,581
44	4	36,444	89	10	347,918
45	6	122,504	90	13	397,435
46	8	101,404	91	7	257,746
47	6	83,987	92	10	279,878
48	18	506,501	93	9	350,929
49	26	657,735	94	6	200,002
50	28	927,586	95	4	79,476
51	24	812,542	96	3	54,372
52	30	1,145,602	97	0	0
53	37	1,529,443	98	2	26,232
54	34	1,415,621	99	0	0
55	41	1,552,170	100 & Over	3	57,228
56	73	3,086,946			
57	71	2,961,493			
58	68	2,960,026			
59	63	2,794,689			
60	66	2,766,006			
61	88	3,457,972			
62	85	3,644,605			
63	93	4,102,301			
64	74	3,114,583			
65	62	2,469,519			
66	53	2,305,542			
67	65	2,602,446			
68	49	1,996,573			
		<b>Totals:</b>			<b>\$77,628,880</b>

**APPENDIX B**

**ACTUARIAL ASSUMPTIONS  
AND PROCEDURES**

## APPENDIX B – ACTUARIAL ASSUMPTIONS AND PROCEDURES

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## APPENDIX B – ACTUARIAL ASSUMPTIONS AND PROCEDURES

### Actuarial Assumptions

1. Annual Rate of Investment Return: 7.25%
2. Annual Increase in Cost-of-Living: 5.00%
3. Rates of Salary Increases for Liabilities<sup>1</sup>

Service	(% at selected service)		
	Teachers	Police <sup>2</sup>	Fire <sup>2</sup>
0	9.0	10.0	7.5
5	9.0	8.6	7.5
10	8.0	7.6	7.5
15	7.0	7.3	11.0
20	6.0	11.0	10.8
25	5.5	6.1	10.5
30	5.4	5.5	7.5

<sup>1</sup> The rates include an annual assumed general wage increase of 5.0%

<sup>2</sup> Additional increases are reflected to account for the Base Retention Differential of 5% after 20 years of service for police officers and Retention incentives of 5%, 10%, and 15% after 15, 20, and 25 years of service, respectively, for fire fighters.

#### 4. Withdrawal

TEACHERS		
NUMBER OF WITHDRAWALS PER 1,000 MEMBERS AT SELECTED AGES		
Age	Male	Female
25	210	210
30	160	160
35	110	110
40	68	68
45	48	48
50	36	36
55	0	0



## APPENDIX B – ACTUARIAL ASSUMPTIONS AND PROCEDURES

### 4. Withdrawal, cont.

POLICE		
NUMBER OF WITHDRAWALS PER 1,000 MEMBERS AT SELECTED AGES		
Age	Male	Female
25	66	66
30	42	42
35	23	23
40	13	13
45	10	10
50	0	0
55	0	0

FIRE		
NUMBER OF WITHDRAWALS PER 1,000 MEMBERS AT SELECTED AGES		
Age	Male	Female
25	16	16
30	16	16
35	16	16
40	16	16
45	16	16
50	0	0
55	0	0

### 5. Mortality

#### *Teachers*

##### *Active Members:*

- Male: 1994 Uninsured Pension (UP94) Male Table with generational improvement set forward 1 year  
Female: 1994 Uninsured Pension (UP94) Female Table with generational improvement set forward 1 year

##### *Inactive Healthy Members:*

- Male: 1994 Uninsured Pension (UP94) Male Table with generational improvement  
Female: 1994 Uninsured Pension (UP94) Female Table with generational improvement

## APPENDIX B – ACTUARIAL ASSUMPTIONS AND PROCEDURES

### 5. Mortality, cont.

#### *Teachers*

*Inactive Disabled Members:*

NUMBER OF DEATHS PER 10,000 MEMBERS AT SELECTED AGES		
Age	Male	Female
25	240	240
30	240	240
35	240	240
40	240	240
45	240	240
50	246	240
55	252	240
60	259	240
65	266	240
70	380	240
75	526	274
80	721	414
85	896	582

#### **Police Officers and Fire Fighters**

*Active Members:*

Male: 1994 Uninsured Pension (UP94) Male Table with generational improvement set forward 3 years

Female: 1994 Uninsured Pension (UP94) Female Table with generational improvement set forward 3 years

*Inactive Healthy Members:*

Male: 1994 Uninsured Pension (UP94) Male Table with generational improvement set forward 2 years

Female: 1994 Uninsured Pension (UP94) Female Table with generational improvement set forward 2 years

## APPENDIX B – ACTUARIAL ASSUMPTIONS AND PROCEDURES

### Inactive Disabled Members:

NUMBER OF DEATHS PER 10,000 MEMBERS AT SELECTED AGES		
Age	Male	Female
25	90	56
30	90	56
35	90	56
40	90	56
45	90	56
50	90	56
55	90	56
60	130	83
65	190	119
70	264	171
75	389	244
80	650	433
85	979	722

## 6. Disability

### Teachers

NUMBER OF DISABLEMENTS PER 10,000 MEMBERS AT SELECTED AGES		
Age	Male	Female
25	3	3
30	6	6
35	9	9
40	13	13
45	20	20
50	32	32
55	55	55
60	57	57
65	0	0

### Police<sup>1</sup>

NUMBER OF DISABLEMENTS PER 10,000 MEMBERS AT SELECTED AGES		
Age	Male	Female
25	26	26
30	34	34
35	51	51
40	75	75
45	118	118
50	195	195
55	341	341
60	500	500
65	500	500

<sup>1</sup> It is assumed that 50% of the disabilities are due to accidents in the line of duty.



## APPENDIX B – ACTUARIAL ASSUMPTIONS AND PROCEDURES

### Fire<sup>1</sup>

NUMBER OF DISABLEMENTS PER 10,000 MEMBERS AT SELECTED AGES		
Age	Male	Female
25	26	26
30	34	34
35	51	51
40	75	75
45	118	118
50	195	195
55	341	341
60	500	500
65	500	500

<sup>1</sup> It is assumed that 50% of the disabilities are due to accidents in the line of duty.

## 7. Retirement

### Teachers

NUMBER OF RETIREMENTS PER 1,000 MEMBERS AT SELECTED AGES		
Age	First Year Eligible	Subsequent Years
45	--	--
50	200	--
55	200	200
56	400	200
57	600	200
58	600	200
59	600	200
60	200	200
65 <sup>2</sup>	200	200
70	200	200

<sup>2</sup> Between the ages of 65 and 70, teachers are assumed to retire at the rate of 200 per 1,000



## APPENDIX B – ACTUARIAL ASSUMPTIONS AND PROCEDURES

### *Police Officers and Fire Fighters<sup>1</sup>*

NUMBER OF RETIREMENTS PER 1,000 MEMBERS AT SELECTED AGES		
Age	Police	Fire
45	150	60
50	230	130
55	400	350
56	500	350
57	500	350
58	500	350
59	500	350
60	1,000	1,000
65	1,000	1,000
70	1,000	1,000

<sup>1</sup> It is assumed that police officers and fire fighters retire after 31 years of service.

### **8. Changes in Assumptions Since Last Valuation**

Due to the 1996 - 2001 Experience Study, the following assumptions were changed:

- Merit/Seniority Salary Increases were increased
- Mortality Rates were decreased
- Disability Rates (teachers only) were decreased
- Withdrawal Rates were increased
- Retirement Rates (teachers only) were leveled after the age first eligible to retire

### Actuarial Procedures

#### 1. Asset Valuation Method

For purposes of determining the fiscal year 2004 District payment, an actuarial value of assets is used. The actuarial value of assets is equal to the actuarially expected market value of assets at 9/30/2002 plus 1/3 of the difference between the actuarially expected market value and the actual market value at 9/30/2002.

#### 2. Funding Method

The funding method required by the “Replacement Plan Act” is the aggregate funding method.

**APPENDIX C**

**SUMMARY OF  
THE PROVISIONS OF  
THE PROGRAMS**



## **APPENDIX C – SUMMARY OF THE PROVISIONS OF THE PROGRAMS**

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**Summary of Program Provisions: District of Columbia Retirement Program for Teachers**

**1. Membership**

Permanent, temporary, and probationary teachers for the District of Columbia public day schools become members automatically on their date of employment. Other employees covered by the Retirement of Public School Teachers Act—including librarians, principals, and counselors—also become members on their date of employment. Substitute teachers and employees of the Department of School Attendance and Work Permits are not covered. Some former D.C. teachers working at charter schools are eligible to remain in the plan.

**2. Required Member Contributions**

Members hired before November 16, 1996 contribute 7% of annual pay minus any pay received for summer school. Members hired on or after November 16, 1996 contribute 8% of annual pay minus pay received for summer school.

**3. Voluntary Member Contributions**

Members can contribute up to 10% of annual pay toward an annuity in addition to any vested pension.

**4. Service**

*School Service* – one year of school service is granted for each year of employment with the D.C. public day schools.

*Credited Service* – service granted or purchased in addition to school service.

**5. Voluntary Retirement**

**For participants hired before November 16, 1996:**

*Eligibility* – age 62 with 5 years of school service; age 60 with 20 years of total service, including 5 years of school service; age 55 with 30 years of total service, including 5 years of school service.

*Benefit* – 1.5% of high 3-year average pay times service up to 5 years, plus 1.75% of average pay times service between 5 and 10 years, plus 2% of high 3-year average pay times service over 10 years, with each period subject to a minimum benefit of 1.0% of average pay plus \$25.

**For participants hired on or after November 16, 1996:**

*Eligibility* – age 62 with 5 years of school service; age 60 with 20 years of total service, including 5 years of school service; or any age with 30 years of total service, including 5 years of school service.

*Benefit* – 2.0% of high 3-year average pay times service up to 5 years subject to minimum benefit of 1.0% of 3-year average pay plus \$25.

**6. *Involuntary Retirement***

*Eligibility* – retired involuntarily for reasons other than misconduct or delinquency with 25 years of total service, including 5 years of school service; or age 50 with 20 years of total service, including 5 years of school service.

*Benefit* – Voluntary Retirement benefit reduced 1/6% per month (2% per year) that date of retirement is before age 55.

**7. *Disability Retirement***

*Eligibility* – 5 years of school service and a physical or mental disability that prevents the member from performing his/her job.

*Benefit* – Voluntary Retirement benefit subject to a minimum of the lesser of 40% of average pay and the benefit that the member would receive projecting service to age 60.

**8. *Deferred Vested Retirement***

*Eligibility* – 5 years of school service.

*Benefit* – Voluntary Retirement benefit beginning at age 62.

**9. *Lump Sum Death Benefit***

*Eligibility* – death before completion of 18 months of school service or death without an eligible spouse, child, or parent.

*Benefit* – Refund of paid contributions.



**10. Installment Benefits Payable upon Death**

**Spouse Only**

*Eligibility* – death before retirement and married for at least two years or have a child by the marriage.

*Benefit* – 55% of the Voluntary Retirement benefit subject to the minimums specified in the Disability Retirement Benefit.

**Spouse and Dependent Children**

*Eligibility* – for the spouse, as described above; for the children, unmarried and under 18, 22 if full-time student, or any child dependent because of a disability incurred before age 18. Death does not have to occur before retirement for the children's benefits.

*Benefit* – spouse benefit as described above plus a benefit per child of the smallest of 60% of average pay divided by the number of children, \$5,076 (if hired before January 1, 1980) or \$4,896, and \$15,228 (if hired before January 1, 1980) or \$14,688 divided by the number of children; payable until the children are no longer eligible.

**Dependent Children Only**

*Eligibility* – same as the children's benefit above.

*Benefit* – per child, the smallest of 75% of average pay divided by the number of eligible children, \$6,180 (if hired before January 1, 1980) or \$5,952, and \$18,450 (if hired before January 1, 1980) or \$17,856 divided by the number of children payable until the children are no longer eligible.

**Surviving Parents Only**

*Eligibility* – death before retirement and no eligible spouse or children, and parents receive at least one-half of their total income from member.

*Benefit* – spouse benefit as described above.

**11. Cost-of-Living Adjustments**

All participants receive an increase each March based on the annual change in the Consumer Price Index (all items – U.S. City average) from December to December. The annual increase is capped at 3% for members hired on or after November 10, 1996.

## **APPENDIX C – SUMMARY OF THE PROVISIONS OF THE PROGRAMS**

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### **12. Form of Payment Options**

*Normal Form of Payment* – Single Life Annuity

*Joint and 55% Survivor (to spouse)* – The original benefit is reduced by 2.5% of annual pension up to \$3,600, plus 10% of any amount over \$3,600.

*Variable Survivor to a person with an “insurable interest”* – A joint and 55% survivor annuity with the original benefit reduced 10% plus an additional 5% for each full 5 years, up to 25 years, the survivor is younger, with a total reduction of 40% for any survivor who is 25 or more years younger.

*Insurance Option* – benefits may be reduced and the balance used to purchase life insurance.

### **13. Benefit Changes Since Prior Valuation**

None.

**Summary of Program Provisions: Retirement Program for District of Columbia Police Officers and Fire Fighters**

**1. Membership**

All police officers and fire fighters of the District of Columbia automatically become members on their date of employment. Police Cadets are not eligible.

**2. Required Member Contributions**

Members hired before November 10, 1996 contribute 7% of annual salary, including any differential for special assignment, but excluding overtime, longevity, holiday, or military pay. Members hired on or after November 10, 1996 contribute 8% of annual salary, including any differential for special assignment, but excluding overtime, holiday, or military pay.

**3. Average Pay**

For those hired before February 15, 1980, basic pay for the highest 12 months. For those hired on or after February 15, 1980, basic pay for the highest 36 months divided by three.

**4. Longevity Pay (Police Only)**

Members who complete 25 years of active service prior to retirement are entitled to an additional 15% of their basic compensation. Members who complete 30 years of active service are entitled to an additional 20% of their basic pay.

**5. Service**

*Departmental Service* – each full year and additional months of employment with either the Metropolitan Police Force or the D.C. Fire Department.

*Credited Service* – service granted or purchased in addition to departmental service.



**6. Normal Retirement Benefit**

**For participants hired before November 10, 1996:**

*Eligibility* – Age 50 with 25 years of departmental service (20 years of service and no age requirement if hired before February 15, 1980).

*Benefit* – 2.5% of average pay times departmental service up to 25 years (20 years if hired before February 15, 1980) plus 3% of average pay times departmental service over 25 (or 20) years plus 2.5% of average pay times credited service, subject to a maximum benefit of 80% of pay.

**For participants hired on or after November 10, 1996:**

*Eligibility* – Age 60 or 25 years of departmental service and no age requirement.

*Benefit* – 2.5% of average pay times total service subject to a maximum benefit of 80% of pay.

**7. Disability Retirement**

**Service-related**

*Eligibility* – disabled as a result of an illness or injury in the line of duty.

*Benefit for those hired before February 15, 1980* – 2.5% of average pay times total years of service, subject to a minimum benefit of 66-2/3% of average pay and subject to a maximum benefit of 70% of average pay.

*Benefit for those hired on or after February 15, 1980* – 70% of final pay times percentage of disability, subject to a minimum benefit of 40% of final pay.

**Non-service-related**

*Eligibility* – 5 years of departmental service and a physical or mental disability that prevents the member from performing his/her job.

*Benefit for those hired before February 15, 1980* – 2% of average pay times total years of service, subject to a minimum benefit of 40% of average pay and subject to a maximum benefit of 70% of average pay.

*Benefit for those hired on or after February 15, 1980* – 70% of final pay times percentage of disability, subject to a minimum benefit of 30% of final pay.

**8. *Deferred Vested Retirement***

*Eligibility* – 5 years of departmental service.

*Benefit* – Normal Retirement benefit beginning at age 55.

**9. *Lump Sum Death Benefit***

*Eligibility* – 5 years of duty not resulting from willful misconduct, an intention to bring about his/her own death, or drunkenness.

*Benefit* – \$50,000. Additional amounts will be paid by the Federal government (outside of the retirement fund).

**10. *Installment Benefits Payable upon Death***

**Spouse; member not killed in line of duty**

*Eligibility* – death and married for at least two years or have a child by the marriage.

*Benefit* – 40% of the greater of average pay and the salary for step 6 salary class 1 of the D.C. Police and Fireman's Salary Act in effect, adjusted for cost-of-living increases if death occurs after retirement.

**Spouse; member killed in line of duty**

*Eligibility* – death (killed in line of duty) and married for at least two years or have a child by the marriage.

*Benefit* – 100% of the greater of average pay and the salary for step 6 salary class 1 of D.C. Police and Fireman's Salary Act in effect, adjusted for cost-of-living increases if death occurs after retirement.

**Dependent Children; with surviving spouse**

*Eligibility* – for the spouse, as described above; for the children, unmarried and under 18, 22 if full-time student, or any child dependent because of a disability incurred before age 18.

*Benefit* – spouse benefit as described above plus a benefit per child of the smallest of 60% of average pay divided by the number of children, \$2,918, and \$8,754 divided by the number of children; payable until the children are no longer eligible.

**Dependent Children Only**

*Eligibility* – same as the children's benefit above.

*Benefit* – per child, 75% of average pay divided by the number of eligible children.

**Refund of Contributions**

If no eligible dependent exists, all contributions will be refunded to a satutorily named beneficiary.

**11. Cost-of-Living Adjustments**

Employees (not beneficiaries) who retired prior to February 15, 1980, receive the same percentage increase as active employees' salary increases.

All other retired participants receive an increase each March based on the annual change in the consumer Price Index (All Urban Consumers) from December to December. The annual increase is capped at 3% for members hired on or after November 10, 1996.

**12. Form of Payment Options**

*Normal Form of Payment* – Single Life Annuity.

*Additional Survivor Benefit* – The original benefit is reduced 10%. This 10% amount is reduced by 5% for each full 5 years the survivor is younger (but not more than 40%) and is added to the survivor's benefit.

**13. Benefit Changes Since Prior Valuation**

None.



# APPENDIX D

## AUDITOR'S INFORMATION

## APPENDIX D – AUDITOR’S INFORMATION

District of Columbia Retirement Board						
Required Supplementary Information Pursuant to GASB Statement #25						
Schedule of Funding Progress						
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as of Percentage of Covered Payroll [(b-a)/(c)]
	(a)	(b)	(b-a)	(b/a)	(c)	
The District of Columbia Retirement Board uses the aggregate actuarial cost method and is therefore not required to disclose a schedule of funding progress.						

District of Columbia Retirement Board						
Required Supplementary Information Pursuant to GASB Statement #25						
Schedule of Employer Contributions						
(\$ Millions)						
	Teacher's Retirement Fund		Police Officer's and Firefighter's Retirement Fund		Total Fund	
Year Ended September 30	Annual Required Contribution	Percentage Contributed	Annual Required Contribution	Percentage Contributed	Annual Required Contribution	Percentage Contributed
1998	\$ 9.6	100 %	\$ 47.7	100 %	\$ 57.3	100 %
1999	\$ 12.8	145 %	\$ 35.1	100 %	\$ 47.9	112 %
2000	\$ 10.7	100 %	\$ 39.9	100 %	\$ 50.6	100 %
2001	\$ 6.6	100 %	\$ 47.0	100 %	\$ 53.6	100 %
2002	\$ 1.0	100 %	\$ 61.4	100 %	\$ 62.4	100 %

**APPENDIX D – AUDITOR’S INFORMATION**

<b>District of Columbia Retirement Board</b>		
<b>Required Supplementary Information Pursuant to GASB Statement #25</b>		
<b>Additional Information</b>		
	Teacher's Retirement Fund	Police Officers' and Fire Fighters' Retirement Fund
Valuation Date:	October 1, 2002	October 1, 2002
Actuarial Cost Method:	Aggregate	Aggregate
Amortization Method:	N/A	N/A
Remaining Amortization Period:	N/A	N/A
Asset Valuation Method:	Market Value	Market Value
Actuarial Assumptions:		
Investment Rate of Return:	7.25%	7.25%
Projected Salary Increases: includes inflation at	5.4%-9.0% 5.0%	5.5%-10.0% 5.0%
Cost of Living Adjustments:	5.0% <sup>1</sup>	5.0% <sup>1</sup>

<sup>1</sup> Post-1996 hires have COLAs capped at 3.00%

Please refer to the actuarial valuation report for more details on the assumptions.



