



Cavanaugh Macdonald
CONSULTING, LLC

The experience and dedication you deserve



**Report on the Actuarial Valuations of the
District of Columbia
Retirement Board**

**Teachers' Retirement Plan and
Police Officers' & Firefighters'
Retirement Plan**

Prepared as of October 1, 2013





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

December 10, 2013

The Board of Trustees
District of Columbia Retirement Board
900 7th Street, NW, 2nd Floor
Washington, DC 20001

Dear Trustees:

We are pleased to submit the results of the annual actuarial valuations of the District of Columbia Retirement Board Teachers' Retirement Plan and Police Officers' & Firefighters' Retirement Plan, prepared as of October 1, 2013.

The purpose of this report is to provide a summary of the funded status of each Plan as of October 1, 2013, to recommend rates of contribution to be paid by the District in the 2015 fiscal year and to provide accounting information under Governmental Accounting Standards Board Statements No. 25 and 27 (GASB 25 and 27). While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The promised benefits are included in the actuarially calculated contribution rates which are developed using the entry age normal cost method. Seven-year smoothed market value of assets is used for actuarial valuation purposes. The assumptions recommended by the actuary and adopted by the Board are reasonably related to the experience under the Fund and to reasonable expectations of anticipated experience under the Fund and meet the parameters for the disclosures under GASB 25 and 27.

The funding policy adopted by the Board in 2012 includes the following funding goals:

- To maintain an increasing or stable ratio of Plan assets to accrued liabilities and reach a 100 percent minimum funded ratio;
- To develop a pattern of stable or declining contribution rates when expressed as a percentage of member payroll as measured by valuations prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board, with a minimum employer contribution equal to the lesser of the normal cost determined under the Entry Age Normal funding method or the current active member contribution rate.

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144

Phone (678) 388-1700 • Fax (678) 388-1730

www.CavMacConsulting.com

Offices in Englewood, CO • Kennesaw, GA • Bellevue, NE • Hilton Head Island, SC



December 10, 2013
The Board of Trustees
Page 2

The funding policy not only states the overall funding goals and benchmarks for the Plan, but sets the methods and assumptions. The level dollar amortization period was set to 20 years in 2012 and will decline one year each year until a funded ratio of 100 percent is reached. Therefore, the amortization period this year is 19 years.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

The Table of Contents, which immediately follows, outlines the material contained in the report.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Thomas J. Cavanaugh'.

Thomas J. Cavanaugh, FSA, FCA, EA, MAAA
Chief Executive Officer

A handwritten signature in blue ink, appearing to read 'Edward J. Koebel'.

Edward J. Koebel, EA, FCA, MAAA
Principal and Consulting Actuary

A handwritten signature in blue ink, appearing to read 'Jonathan T. Craven'.

Jonathan T. Craven, ASA, FCA, EA, MAAA
Senior Actuary

TJC/EJK/JTC:kc



TABLE OF CONTENTS

<u>Section</u>	<u>Item</u>	<u>Page No.</u>
I	Summary of Principal Results	1
II	Membership Data	7
III	Assets	10
IV	Comments on Valuation	11
V	§1-907.02(c) Adjustment to Fiscal Year 2015 District Payment	13
VI	Contributions Payable	14
VII	Accounting Information	15
VIII	Experience	19
<u>Schedule</u>		
A	Valuation Balance Sheet and Solvency Test	21
B	Development of the Actuarial Value of Assets	24
C	Summary of Changes in Net Assets	26
D	Outline of Actuarial Assumptions and Methods	28
E	Summary of Main Plan Provisions as Interpreted For Valuation Purposes	34
F	Schedules of Member Data	44
G	Schedule of Retirees Added to and Removed from Rolls	56
H	Analysis of Financial Experience	58



**REPORT ON THE ACTUARIAL VALUATION OF
THE DISTRICT OF COLUMBIA RETIREMENT BOARD
PREPARED AS OF OCTOBER 1, 2013**

SECTION I - SUMMARY OF PRINCIPAL RESULTS

1. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results for the Teachers' Retirement Plan and Police Officers' and Firefighters' Retirement Plan are summarized below in the tables that follow.

**SUMMARY OF PRINCIPAL RESULTS FOR TEACHERS' RETIREMENT PLAN
(\$ IN THOUSANDS)**

VALUATION DATE	October 1, 2013	October 1, 2012
Number of Active Members	4,379	4,495
Annual Covered Payroll	\$369,071	\$381,235
Number of Retired Members and Survivors	3,448	3,285
Annual Retirement Benefits	\$52,966	\$47,407
Assets:		
Actuarial Value	\$1,585,775	\$1,585,626
Market Value	\$1,622,376	\$1,503,346
Liabilities:		
Accrued Liability	\$1,759,043	\$1,680,548
Unfunded Accrued Liability (UAL)	\$173,268	\$94,922
Funding Ratios:		
Based on Actuarial Value	90.15%	94.35 %
Based on Market Value	92.23%	89.46 %
Amortization Period:	19 years	20 years
CONTRIBUTION FOR FISCAL YEAR ENDING	09/30/2015	09/30/2014
Employer Normal Cost Rate*	6.29%	5.84%
Amortization of UAL Rate	4.11	2.12
Annual Required Contribution Rate (ARC)	10.40%	7.96%
Estimated Fiscal Year End Covered Payroll	\$384,757	\$397,437
Fiscal Year District Payment before 1-907.02(c)	\$40,015	\$31,636
Shortfall/Overpayment	(502)	0
Fiscal Year District Payment	\$39,513	\$31,636

* Beginning with the October 1, 2012 valuation, estimated budgeted administrative expenses are included in the normal cost rate.



**SUMMARY OF PRINCIPAL RESULTS FOR POLICE OFFICERS'
RETIREMENT PLAN
(\$ IN THOUSANDS)**

VALUATION DATE	October 1, 2013	October 1, 2012
Total Number of Active Members	3,846	3,810
Total Annual Covered Payroll	\$292,494	\$291,780
Number of Retired Members and Survivors	1,584	1,498
Annual Retirement Benefits	\$34,392	\$30,592
Total Assets:		
Actuarial Value	\$2,869,122	\$2,719,839
Market Value	\$2,978,529	\$2,637,960
Liabilities:		
Accrued Liability	\$2,552,979	\$2,434,513
Unfunded Accrued Liability (UAL)	(\$316,143)	(\$285,326)
Funding Ratios:		
Based on Actuarial Value	112.38%	111.72 %
Based on Market Value	116.67%	108.36 %
Amortization Period:	19 years	20 years
CONTRIBUTION FOR FISCAL YEAR ENDING	09/30/2015	09/30/2014
Employer Normal Cost Rate*	32.21%	31.92 %
Amortization of UAL Rate	(9.45)	(8.33)
Annual Required Contribution Rate (ARC)	22.76%	23.59 %
Estimated Fiscal Year End Covered Payroll	\$304,925	\$304,181
Fiscal Year District Payment before 1-907.02(c)	\$69,401	\$71,756
Shortfall/Overpayment	(34)	861
Fiscal Year District Payment	\$69,367	\$72,617

* Beginning with the October 1, 2012 valuation, estimated budgeted administrative expenses are included in the normal cost rate.



**SUMMARY OF PRINCIPAL RESULTS FOR FIREFIGHTERS'
RETIREMENT PLAN
(\$ IN THOUSANDS)**

VALUATION DATE	October 1, 2013	October 1, 2012
Total Number of Active Members	1,664	1,700
Total Annual Covered Payroll	\$120,886	\$123,097
Number of Retired Members and Survivors	599	541
Annual Retirement Benefits	\$15,138	\$12,838
Total Assets:		
Actuarial Value	\$1,144,412	\$1,085,014
Market Value	\$1,189,928	\$1,043,565
Liabilities:		
Accrued Liability	\$1,091,106	\$1,022,464
Unfunded Accrued Liability (UAL)	(\$53,306)	(\$62,550)
Funding Ratios:		
Based on Actuarial Value	104.89%	106.12 %
Based on Market Value	109.06%	102.06 %
Amortization Period:	19 years	20 years
CONTRIBUTION FOR FISCAL YEAR ENDING	09/30/2015	09/30/2014
Employer Normal Cost Rate*	37.28%	36.70%
Amortization of UAL Rate	(3.86)	(4.33)
Annual Required Contribution Rate (ARC)	33.42%	32.37%
Estimated Fiscal Year End Covered Payroll	\$126,024	\$128,328
Fiscal Year District Payment before 1-907.02(c)	\$42,117	\$41,540
Shortfall/Overpayment	(8,054)	(3,391)
Fiscal Year District Payment	\$34,063	\$38,149

* Beginning with the October 1, 2012 valuation, estimated budgeted administrative expenses are included in the normal cost rate.



**SUMMARY OF PRINCIPAL RESULTS FOR POLICE OFFICERS' & FIREFIGHTERS'
RETIREMENT PLAN
(\$ IN THOUSANDS)**

VALUATION DATE	October 1, 2013	October 1, 2012
Number of Active Police Officers	3,846	3,810
Annual Covered Payroll	\$292,494	\$291,780
Number of Active Firefighters	1,664	1,700
Annual Covered Payroll	\$120,886	\$123,097
Total Number of Active Members	5,510	5,510
Total Annual Covered Payroll	\$413,380	\$414,877
Number of Retired Members and Survivors	2,183	2,039
Annual Retirement Benefits	\$49,530	\$43,430
Assets:		
Actuarial Value	\$4,013,534	\$3,804,853
Market Value	\$4,168,457	\$3,681,526
Liabilities:		
Accrued Liability	\$3,644,085	\$3,456,977
Unfunded Accrued Liability (UAL)	(\$369,449)	(\$347,876)
Funding Ratios:		
Based on Actuarial Value	110.14%	110.06 %
Based on Market Value	114.39%	106.50 %
Amortization Period:	19 years	20 years
CONTRIBUTIONS FOR FISCAL YEAR ENDING	09/30/2015	09/30/2014
Employer Normal Cost Rate*	33.69%	33.34 %
Amortization of UAL Rate	(7.82)	(7.15)
Annual Required Contribution Rate (ARC)	25.87%	26.19 %
Estimated Fiscal Year End Covered Payroll	\$430,949	\$432,509
Fiscal Year District Payment before 1-907.02(c)	\$111,518	\$113,296
Shortfall/Overpayment	(8,088)	(2,530)
Fiscal Year District Payment	\$103,430	\$110,766

* Beginning with the October 1, 2012 valuation, estimated budgeted administrative expenses are included in the normal cost rate.



2. The valuation balance sheet showing the results is given in Schedule A.
3. Comments on the valuation results as of October 1, 2013 are given in Section IV and further adjustments of the contribution amounts are set out in Section V.
4. Schedule B of this report shows the development of the actuarial value of assets. Schedule D outlines the full set of actuarial assumptions and methods employed.
5. The funding policy adopted by the Board in 2012 includes the following funding goals:
 - To maintain an increasing or stable ratio of Plan assets to accrued liabilities and reach a 100 percent minimum funded ratio;
 - To develop a pattern of stable or declining contribution rates when expressed as a percentage of member payroll as measured by valuations prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board, with a minimum employer contribution equal to the lesser of the normal cost determined under the Entry Age Normal funding method and the current active member contribution rate.

The new funding policy not only states the overall funding goals and benchmarks for the Plan, but sets the methods and assumptions. The level dollar amortization period was set to 20 years in 2012 and will decline one year each year until a funded ratio of 100 percent is reached. The amortization period this year is 19 years.

6. The valuation takes into account the effect of the transfer of \$30,915,378 to the United States Treasury. The transfer represents the balance due for the difference in estimated district benefit payments and actual district benefit payments for the reconciliation period of October 1, 1997 to December 31, 2007
7. The valuation takes into account the effect of amendments to DCRB through the valuation date. The Main Provisions of DCRB, as summarized in Schedule E, were taken into account in the current valuation. No changes were made to the main provisions since the previous valuation.
8. All membership data was collected as of July 1, 2013 but for valuation purposes (e.g. age, service) all members were treated as if remaining in the System as of October 1, 2013.



9. All amounts shown prior to October 1, 2010 were developed and/or reported by the prior actuarial firm.



SECTION II – MEMBERSHIP DATA

1. Data regarding the membership of DCRB for use as a basis of the valuation were furnished by the District Government. The following table shows the number of active members and their annual compensation as of October 1, 2013 on the basis of which the valuation was prepared.

TABLE 1

THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS AS OF OCTOBER 1, 2013 (\$ IN THOUSANDS)

GROUP	NUMBER	COMPENSATION
Teachers	4,379	\$369,071
Police Officers	3,846	292,494
Firefighters	<u>1,664</u>	<u>120,886</u>
Total	9,889	\$782,451

2. The following table shows a five-year history of active member valuation data.

TABLE 2

SCHEDULE OF TOTAL ACTIVE MEMBER VALUATION DATA

VALUATION DATE	NUMBER	ANNUAL PAYROLL (\$ IN THOUSANDS)	ANNUAL AVERAGE PAY	% CHANGE IN AVERAGE PAY
10/01/2013	9,889	\$ 782,451	\$ 79,123	(0.56)%
10/01/2012	10,005	796,112	79,571	1.81
10/01/2011	10,308	805,676	78,160	7.35
10/01/2010	10,457	761,370	72,810	(2.11)
10/01/2009	10,389	772,700	74,377	(0.18)



3. The following table shows the number and annual retirement benefits payable to retired members and survivors on the roll of DCRB as of the valuation date.

TABLE 3
THE NUMBER AND ANNUAL RETIREMENT BENEFITS
OF RETIRED MEMBERS AND SURVIVORS OF DECEASED MEMBERS
ON THE ROLL AS OF OCTOBER 1, 2013
(\$ IN THOUSANDS)

DISTRICT ONLY

TYPE OF RETIREMENT	GROUP			
	TEACHERS	POLICE OFFICERS	FIREFIGHTERS	TOTAL
Service:				
Number	3,215	973	414	4,602
Annual Benefits	\$49,582	\$21,416	\$11,584	\$82,582
Disability:				
Number	119	283	68	470
Annual Benefits	\$2,632	\$8,459	\$1,492	\$12,583
Survivors:				
Number	114	328	117	559
Annual Benefits	\$752	\$4,517	\$2,062	\$7,331
Total:				
Number	3,448	1,584	599	5,631
Annual Benefits	\$52,966	\$34,392	\$15,138	\$102,496

*In addition, there are 1,138 deferred vested participants with annual deferred benefits of \$14,580,186.



TABLE 4

THE NUMBER AND ANNUAL RETIREMENT BENEFITS
OF RETIRED MEMBERS AND SURVIVORS OF DECEASED MEMBERS
ON THE ROLL AS OF OCTOBER 1, 2013
(\$ IN THOUSANDS)

FEDERAL PLUS DISTRICT

TYPE OF RETIREMENT	GROUP			TOTAL
	TEACHERS	POLICE OFFICERS	FIREFIGHTERS	
Service:				
Number	5,379	3,248	1,051	9,678
Annual Benefits	\$243,885	\$184,194	\$70,374	\$498,453
Disability:				
Number	367	1,079	400	1,846
Annual Benefits	\$11,210	\$45,059	\$19,081	\$75,350
Survivors:				
Number	426	1,368	543	2,337
Annual Benefits	\$8,596	\$38,246	\$16,065	\$62,907
Total:				
Number	6,172	5,695	1,994	13,861
Annual Benefits	\$263,691	\$267,499	\$105,520	\$636,710

4. Tables 4 through 6 of Schedule F show the distribution by age and service of the number and annual compensation of active members for each plan included in the valuation. Tables 7 through 12 of Schedule F show the distribution by age of the number and annual benefits of retired members for each plan included in the valuation.



SECTION III - ASSETS

- Schedule C shows the additions and deductions of DCRB for the year preceding the valuation date and a reconciliation of the fund balances at market value. As of October 1, 2013, the market value of assets used to determine the actuarial value of assets for each plan is shown below:

**TABLE 5
COMPARISON OF MARKET VALUE OF ASSETS AT
OCTOBER 1, 2013 AND OCTOBER 1, 2012
(\$ IN THOUSANDS)**

FUND	OCTOBER 1, 2013 MARKET VALUE	OCTOBER 1, 2012 MARKET VALUE
Teachers	\$1,622,376	\$1,503,346
Police Officers and Firefighters	<u>4,168,457</u>	<u>3,681,527</u>
Total Market Value of Assets	\$5,790,833	\$5,184,873

- The seven-year market related actuarial value of assets used for the current valuation was \$5,599,308,883. Schedule B shows the development of the actuarial value of assets as of October 1, 2013. The following table shows the actuarial value of assets allocated among each plan.

**TABLE 6
COMPARISON OF ACTUARIAL VALUE OF ASSETS AT
OCTOBER 1, 2013 AND OCTOBER 1, 2012
(\$ IN THOUSANDS)**

FUND	OCTOBER 1, 2013 ACTUARIAL VALUE	OCTOBER 1, 2012 ACTUARIAL VALUE
Teachers	\$1,585,775	\$1,585,626
Police Officers and Firefighters	<u>4,013,534</u>	<u>3,804,853</u>
Total Actuarial Value of Assets	\$5,599,309	\$5,390,479



SECTION IV - COMMENTS ON VALUATION

Teachers' Retirement Plan

1. The total valuation balance sheet on account of benefits shows that the Teachers' Retirement Plan has total prospective benefit liabilities of \$2,165,473,424, of which \$788,292,120 is for the prospective benefits payable on account of present retired members and survivors of deceased members, \$95,203,214 is for the prospective benefits payable on account of present inactive members, and \$1,281,978,090 is for the prospective benefits payable on account of present active members. Against these benefit liabilities the Teachers' Retirement Plan has a total present actuarial value of assets of \$1,585,774,613 as of October 1, 2013. The difference of \$579,698,811 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits.
2. The contributions to the Plan consist of normal cost contributions and accrued liability contributions. The valuation indicates the normal contributions at a rate of 12.82% of payroll are required under the entry age method. Of this amount 7.73% will be paid by the members (at the rate of 7.0% of salary for members hired before November 1, 1996 and 8.0% of salary for members hired on or after November 1, 1996), in 2015 and the remaining 5.09% is payable by the District.
3. Beginning with the October 1, 2012 valuation, estimated budgeted administrative expenses are included in the normal rates. The expenses for the fiscal year ending September 30, 2015 are estimated to be 1.20% of payroll.
4. Prospective normal cost contributions (excluding administrative expenses) at the rate of 12.82% have a present value of \$406,430,605. When this amount is subtracted from \$579,698,811, which is the present value of total future contributions to be made, there remains \$173,268,206 as the amount of unfunded accrued liability contributions. The development of the unfunded accrued liability is shown in Schedule A.



Police Officers' and Firefighters' Retirement Plan

1. The total valuation balance sheet on account of benefits shows that the combined Police Officers' and Firefighters' Retirement Plan has total prospective benefit liabilities of \$5,696,638,455, of which \$912,515,940 is for the prospective benefits payable on account of present retired members and survivors of deceased members, \$54,345,883 is for the prospective benefits payable on account of present inactive members, and \$4,729,776,632 is for the prospective benefits payable on account of present active members. Against these benefit liabilities the Police Officers' and Firefighters' Retirement Plan has a total present actuarial value of assets of \$4,013,534,269 as of October 1, 2013. The difference of \$1,683,104,186 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits.

2. The contributions to the Plan consist of normal cost contributions and accrued liability contributions. The valuation indicates the normal contributions at a rate of 40.00% of payroll are required under the entry age method. Of this amount 7.51% will be paid by the members (at the rate of 7.0% of salary for members hired before November 1, 1996 and 8.0% of salary for members hired on or after November 1, 1996), in 2015 and the remaining 32.49% is payable by the District.

3. Beginning with the October 1, 2012 valuation, estimated budgeted administrative expenses are included in the normal rates. The expenses for the fiscal year ending September 30, 2015 are estimated to be 1.20% of payroll.

4. Prospective normal cost contributions (excluding administrative expenses) at the rate of 40.00% have a present value of \$2,052,553,504. When this amount is subtracted from \$1,683,104,186, which is the present value of total future contributions to be made, there remains (\$369,449,318) as the amount of unfunded accrued liability contributions. The development of the unfunded accrued liability is shown in Schedule A.



SECTION V - §1-907.02(c) ADJUSTMENT TO FISCAL YEAR 2015 DISTRICT PAYMENT

1. 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."

2. The D.C. Code §1-907.02(c) adjustment to the fiscal year 2015 District payment is calculated by taking the actual fiscal year 2013 covered payroll for each employee class (which is provided by the District) and multiplying by the corresponding fiscal year 2013 contribution rates, which were determined as of October 1, 2011. This result is the fiscal year 2013 contribution that was required to be made by the District, based on actual payroll. The required contribution is then compared to the actual contribution that was paid by the District based on projected payroll. The difference between the required and actual contributions is the D.C. Code §1-907.02(c) adjustment. Any adjustment amount that cannot be used in a given year is carried forward to the next fiscal year.

**ADJUSTMENT TO DISTRICT PAYMENT
AS OF OCTOBER 1, 2013
(\$ IN THOUSANDS)**

	Teachers	Police	Fire
(1) Actual FY 2013 Covered Payroll	\$369,071	\$292,494	\$120,886
(2) FY 2013 Contribution Rate	1.60%	20.24%	24.01%
(3) Actual FY 2013 Contribution Required	\$5,905	\$59,201	\$29,025
(4) Actual FY 2013 Contribution Paid	\$6,407	\$59,235	\$37,079
(5) Preliminary D.C. Code §1-907.02(c) Adjustment to FY 2015 Payment [(3) - (4)]	(\$502)	(\$34)	(\$8,054)
(6) FY 2014 Unrecognized Amount	\$0	\$0	\$0
(7) Final D.C. Code §1-907.02(c) Adjustment to FY 2015 Payment [(5) + (6) if applicable]	(\$502)	(\$34)	(\$8,054)
(8) Applicable Adjustment	(\$502)	(\$34)	(\$8,054)
(9) Carryover Adjustment [(7) - (8)]	\$0	\$0	\$0



SECTION VI – CONTRIBUTIONS PAYABLE

1. The following tables summarize the employer contribution rates, which were determined by the October 1, 2013 valuation and recommended for use for the fiscal year ending September 30, 2015.

**TEACHERS' RETIREMENT PLAN
ANNUAL REQUIRED CONTRIBUTIONS (ARC)
FOR FISCAL YEAR ENDING SEPTEMBER 30, 2015**

	PERCENTAGE OF ACTIVE MEMBERS' COMPENSATION	EMPLOYER ANNUAL REQUIRED CONTRIBUTION (ARC)
Normal Cost	5.09%	\$19,584,000
Expense Load	1.20	4,617,000
Accrued Liability	<u>4.11</u>	<u>15,814,000</u>
Sub-Total	10.40%	\$40,015,000
DC Code Adjustment		<u>(502,000)</u>
Total		\$39,513,000

**POLICE OFFICERS' AND FIREFIGHTERS' RETIREMENT PLAN
ANNUAL REQUIRED CONTRIBUTIONS (ARC)
FOR FISCAL YEAR ENDING SEPTEMBER 30, 2015**

	PERCENTAGE OF ACTIVE MEMBERS' COMPENSATION	EMPLOYER ANNUAL REQUIRED CONTRIBUTION (ARC)
Normal Cost	32.49%	\$140,026,000
Expense Load	1.20	5,171,000
Accrued Liability	<u>(7.82)</u>	<u>(33,680,000)</u>
Sub-Total	25.87%	\$111,518,000
DC Code Adjustment		<u>(8,088,000)</u>
Total		\$103,430,000



SECTION VII - ACCOUNTING INFORMATION

1. Governmental Accounting Standards Board Statements 25 and 27 set forth certain items of required supplementary information to be disclosed in the financial statements of DCRB and the employer. One such item is a distribution of the number of employees by type of membership, as follows:

**NUMBER OF ALL MEMBERS
AS OF OCTOBER 1, 2013**

GROUP	RETIREMENT PLAN			
	Teachers	Police Officers	Firefighters	Total
Retirees and survivors currently receiving benefits	3,448	1,584	599	5,631
Terminated employees entitled to benefits but not yet receiving benefits	912	140	86	1,138
Inactive Members	1,350	60	38	1,448
Active Members				
Vested	2,212	3,281	1,481	6,974
Non-vested	<u>2,167</u>	<u>565</u>	<u>183</u>	<u>2,915</u>
Total Active Members	4,379	3,846	1,664	9,889
Totals	10,089	5,630	2,387	18,106



2. Another such item is the schedule of funding progress as shown below.

SCHEDULE OF FUNDING PROGRESS*
(\$ IN THOUSANDS)

Actuarial Valuation Date	Actuarial Value of Plan Assets (a)	Actuarial Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
TEACHERS' RETIREMENT PLAN*						
10/1/2009	\$1,445,000	\$1,304,500	(\$140,500)	110.8 %	\$336,600	(41.7)%
10/1/2010	1,570,968	1,328,299	(242,669)	118.3 %	337,516	(71.9)%
10/1/2011	1,573,654	1,544,864	(28,790)	101.9 %	384,455	(7.5)%
10/1/2012	1,585,626	1,680,548	94,922	94.4 %	381,235	24.9 %
10/1/2013	1,585,775	1,759,043	173,268	90.1 %	369,071	46.9 %
POLICE OFFICERS' AND FIREFIGHTERS' RETIREMENT PLAN*						
10/1/2009	\$3,048,400	\$3,027,900	(\$20,500)	100.7 %	\$436,100	(4.7)%
10/1/2010	3,418,796	3,166,830	(251,966)	108.0 %	423,854	(59.4)%
10/1/2011	3,593,716	3,309,825	(283,891)	108.6 %	421,221	(67.4)%
10/1/2012	3,804,853	3,456,976	(347,877)	110.1 %	414,877	(83.9)%
10/1/2013	4,013,534	3,644,085	(369,449)	110.1 %	413,380	(89.4)%

* Results prior to 10/1/2010 were reported by the prior actuary.



3. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at October 1, 2013.

	Teachers	Police Officers & Firefighters
Valuation Date	10/1/2013	10/1/2013
Actuarial cost method	Entry Age Normal	Entry Age Normal
Amortization method	Level Dollar Closed	Level Dollar Closed
Remaining amortization period	19 years	19 years
Asset valuation method	7 year smoothed Market	7 year smoothed Market
Actuarial assumptions:		
Investment rate of return*	6.50%	6.50%
Projected salary increases**	4.45 – 8.25%	4.75 – 9.25%
Cost of living adjustments:	3.50% (COLA limited to 3.00% for those hired after 11/1/1996)	3.50% (COLA limited to 3.00% for those hired after 11/10/1996)

* Includes inflation of 3.50%.

** Includes wage inflation of 4.25%.



SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ending	Annual Required Contribution in Dollars (\$ in millions)	Annual Required Contribution as a Percent of Total Payroll	Percent of ARC Contributed
Teachers' Retirement Plan			
9/30/2009	\$0.0	0.00 %	100 %
9/30/2010	0.0	0.00 %	100 %
9/30/2011	0.0	0.00 %	100 %
9/30/2012	0.0	0.00 %	100 %
9/30/2013	6.4	1.59 %	100 %
Police Officers' & Firefighters' Retirement Plan			
9/30/2009	\$106.0	24.31 %	100 %
9/30/2010	132.3	31.21 %	100 %
9/30/2011	127.2	30.20 %	100 %
9/30/2012	116.7	28.13 %	100 %
9/30/2013	96.3	22.06 %	100 %



SECTION VIII – EXPERIENCE

Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is assumed that gains and losses will be in balance over a period of years, but sizable year to year fluctuations are common. Detail on the derivation of the experience gain/(loss) for the year ended September 30, 2013 is shown below.

Teachers' Retirement Plan

		<u>\$ Thousands</u>
(1)	UAAL* as of October 1, 2012	\$ 94,922
(2)	Total normal cost from last valuation	47,089
(3)	Total actual contributions	34,536
(4)	Interest accrual: $(1) \times .065 + [(2) - (3)] \times .0325$	<u>6,578</u>
(5)	Expected UAAL before changes: $(1) + (2) - (3) + (4)$	\$ 114,053
(6)	Change due to transfer to U.S. Treasury	21,503
(7)	Change due to actuarial assumptions or methods	<u>0</u>
(8)	Expected UAAL after changes: $(5) + (6) + (7)$	\$ 135,556
(9)	Actual UAAL as of October 1, 2013	\$ 173,268
(10)	Gain/(loss): $(8) - (9)$	\$ (37,712)
(11)	Gain/(loss) as percent of actuarial accrued liabilities at start of year (\$1,680,548)	(2.2)%

*Unfunded actuarial accrued liability.

Valuation Date September 30	Actuarial Gain/(Loss) as a % of Beginning Accrued Liabilities
2012	(6.5)%
2013	(2.2)



Police Officers' and Firefighters' Retirement Plan

		<u>\$ Thousands</u>
(1)	UAAL* as of October 1, 2012	\$ (347,877)
(2)	Total normal cost from last valuation	164,380
(3)	Total actual contributions	126,895
(4)	Interest accrual: $(1) \times .065 + [(2) - (3)] \times .0325$	<u>(21,394)</u>
(5)	Expected UAAL before changes: $(1) + (2) - (3) + (4)$	\$ (331,785)
(6)	Change due to transfer to U.S. Treasury	9,412
(7)	Change due to actuarial assumptions or methods	<u>0</u>
(8)	Expected UAAL after changes: $(5) + (6) + (7)$	\$ (322,373)
(9)	Actual UAAL as of October 1, 2013	\$ (369,449)
(10)	Gain/(loss): $(8) - (9)$	\$ 47,077
(11)	Gain/(loss) as percent of actuarial accrued liabilities at start of year (\$3,456,977)	1.4%

*Unfunded actuarial accrued liability.

Valuation Date September 30	Actuarial Gain/(Loss) as a % of Beginning Accrued Liabilities
2012	1.3%
2013	1.4



SCHEDULE A

**VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE DISTRICT OF COLUMBIA RETIREMENT BOARD
AS OF OCTOBER 1, 2013**

TEACHERS' RETIREMENT PLAN

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		1,585,774,613
Present value of future members' contributions		237,541,771
Present value of future employer contributions		
Normal contributions	\$168,888,834	
Unfunded accrued liability contributions	<u>173,268,206</u>	
Total prospective employer contributions		<u>342,157,040</u>
Total Present and Prospective Assets		<u>\$2,165,473,424</u>
ACTUARIAL LIABILITIES		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		\$788,292,120
Present value of prospective benefits payable on account of inactive members		95,203,214
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$1,131,557,132	
Disability retirement benefits	30,584,450	
Survivor benefits	16,280,883	
Separation benefits	<u>103,555,625</u>	
Total		<u>1,281,978,090</u>
Total Actuarial Liabilities		<u>\$2,165,473,424</u>



SCHEDULE A

(Continued)

**VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE DISTRICT OF COLUMBIA RETIREMENT BOARD
AS OF OCTOBER 1, 2013**

POLICE OFFICERS' & FIREFIGHTERS' RETIREMENT PLAN

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		4,013,534,269
Present value of future members' contributions		346,319,201
Present value of future employer contributions		
Normal contributions	\$1,706,234,303	
Unfunded accrued liability contributions	<u>(369,449,318)</u>	
Total prospective employer contributions		<u>1,336,784,985</u>
Total Present and Prospective Assets		<u>\$5,696,638,455</u>
ACTUARIAL LIABILITIES		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		\$912,515,940
Present value of prospective benefits payable on account of inactive members		54,345,883
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$4,292,161,909	
Disability retirement benefits	289,773,378	
Survivor benefits	80,873,565	
Separation benefits	<u>66,967,780</u>	
Total		<u>4,729,776,632</u>
Total Actuarial Liabilities		<u>\$5,696,638,455</u>



SCHEDULE A

(continued)

**SOLVENCY TEST
(\$ IN THOUSANDS)**

Valuation Date	Aggregate Accrued Liabilities For*				Portion of Accrued Liabilities Covered by Reported Asset		
	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Reported Assets	(1)	(2)	(3)
TEACHERS' RETIREMENT PLAN							
10/1/2009	\$335,481	\$995,361	\$3,001,587	\$3,743,000	100%	100.0%	80.4%
10/1/2010	136,055	622,253	569,991	1,314,357	100%	100.0%	97.6%
10/1/2011	138,874	718,884	687,107	1,340,725	100%	100.0%	70.3%
10/1/2012	137,698	819,842	723,008	1,503,346	100%	100.0%	75.5%
10/1/2013	141,792	883,495	733,756	1,622,376	100%	100.0%	81.4%
POLICE OFFICERS' AND FIREFIGHTERS' RETIREMENT PLAN							
10/1/2009	\$335,481	\$995,361	\$3,001,587	\$3,743,000	100%	100.0%	80.4%
10/1/2010	211,961	583,338	2,371,531	2,920,790	100%	100.0%	89.6%
10/1/2011	224,928	708,364	2,376,533	3,127,496	100%	100.0%	92.3%
10/1/2012	235,924	849,982	2,371,070	3,681,526	100%	100.0%	100.0%
10/1/2013	247,202	966,862	2,430,021	4,168,457	100%	100.0%	100.0%

*Prior to 10/1/2010, the results are shown in aggregate and were reported by the prior actuary.



SCHEDULE B

**DEVELOPMENT OF THE OCTOBER 1, 2013
ACTUARIAL VALUE OF ASSETS**

TEACHERS' RETIREMENT PLAN

(1) Actuarial Value Beginning of Year*	\$	1,585,626,043
(2) Market Value End of Year	\$	1,622,375,617
(3) Market Value Beginning of Year	\$	1,503,345,631
(4) Cash Flow		
a. Contributions	\$	34,535,791
b. Benefit Payments, Refunds, and Transfers		(80,932,675)
c. Administrative Expenses		<u>(3,499,976)</u>
d. Net Cash Flow: [(4)a + (4)b + (4)c]	\$	(49,896,860)
(5) Investment Income		
a. Market total: (2) – (3) – (4)d	\$	168,926,846
b. Assumed Rate		6.50%
c. Amount of Immediate Recognition	\$	96,095,818
d. Amount for Phased-in Recognition: (5)a – (5)c	\$	72,831,028
(6) Phased-In Recognition of Investment Income		
a. Current Year: (1/7) x (5)d	\$	10,404,433
b. First Prior Year		13,523,532
c. Second Prior Year		(6,589,080)
d. Third Prior Year		5,834,740
e. Fourth Prior Year		(17,509,865)
f. Fifth Prior Year		(51,242,786)
g. Sixth Prior Year		0
h. Total Recognized Investment Gain	\$	<u>(45,579,026)</u>
(7) Preliminary Actuarial Value End of Year: (1) + (4)d + (5)c + (6)h	\$	1,586,245,975
(8) Actuarial Value End of Year with 20% Corridor Applied:	\$	1,586,245,975
(9) Present Value of DC Code Adjustment	\$	(471,362)
(10) Final Actuarial Value End of Year: (8) + (9)	\$	1,585,774,613

*Prior to any corridor restraints.



SCHEDULE B

(Continued)

**DEVELOPMENT OF THE OCTOBER 1, 2013
ACTUARIAL VALUE OF ASSETS**

POLICE OFFICERS' & FIREFIGHTERS' RETIREMENT PLAN

(1)	Actuarial Value Beginning of Year*	\$	3,804,853,391
(2)	Market Value End of Year	\$	4,168,456,920
(3)	Market Value Beginning of Year	\$	3,681,525,782
(4)	Cash Flow		
	a. Contributions	\$	126,894,528
	b. Benefit Payments, Refunds, and Transfers		(57,006,869)
	c. Administrative Expenses		(8,571,174)
	d. Net Cash Flow: [(4)a + (4)b + (4)c]	\$	61,316,485
(5)	Investment Income		
	a. Market total: (2) – (3) – (4)d	\$	425,614,653
	b. Assumed Rate		6.50%
	c. Amount of Immediate Recognition	\$	241,291,962
	d. Amount for Phased-in Recognition: (5)a – (5)c	\$	184,322,691
(6)	Phased-In Recognition of Investment Income		
	a. Current Year: (1/7) x (5)d	\$	26,331,813
	b. First Prior Year		32,104,476
	c. Second Prior Year		(18,159,945)
	d. Third Prior Year		12,440,209
	e. Fourth Prior Year		(34,598,041)
	f. Fifth Prior Year		(101,921,714)
	g. Sixth Prior Year		0
	h. Total Recognized Investment Gain	\$	(83,803,202)
(7)	Preliminary Actuarial Value End of Year: (1) + (4)d + (5)c + (6)h	\$	4,023,658,636
(8)	Actuarial Value End of Year with 20% Corridor Applied:	\$	4,023,658,636
(9)	Present Value of DC Code Adjustment	\$	(10,124,366)
(10)	Final Actuarial Value End of Year: (8) + (9)	\$	4,013,534,269

*Prior to any corridor restraints.



SCHEDULE C

**SUMMARY OF CHANGES IN NET ASSETS
FOR THE YEAR ENDING OCTOBER 1, 2013**

TEACHERS' RETIREMENT PLAN

Additions for the Year

Contributions:

Members (including purchased service)	\$	28,128,791	
Employers		<u>6,407,000</u>	
Total	\$		34,535,791

Net Investment Income 168,926,846

TOTAL \$ 203,462,637

Deductions for the Year

Benefit Payments (including refunds and transfers)	\$	(80,932,675)	
Administrative Expenses		<u>(3,499,976)</u>	
TOTAL	\$		(84,432,651)

Excess of Additions Over Deductions \$ 119,029,986

Reconciliation of Asset Balances

Market Value of Assets as of 9/30/2012	\$	1,503,345,631	
Excess of Additions over Deductions		<u>119,029,986</u>	
Market Value of Assets as of 9/30/2013*	\$		<u>1,622,375,617</u>

* The Market Value of Assets shown above is used in the determination of the Actuarial Value of Assets (Schedule B).



SCHEDULE C

(Continued)

**SUMMARY OF CHANGES IN NET ASSETS
FOR THE YEAR ENDING OCTOBER 1, 2013**

POLICE OFFICERS' & FIREFIGHTERS' RETIREMENT PLAN

<u>Additions for the Year</u>		
Contributions:		
Members (including purchased service)	\$	30,580,528
Employers		<u>96,314,000</u>
Total	\$	126,894,528
Net Investment Income		<u>425,614,653</u>
TOTAL	\$	552,509,181
 <u>Deductions for the Year</u>		
Benefit Payments (including refunds and transfers)	\$	(57,006,869)
Administrative Expenses		<u>(8,571,174)</u>
TOTAL	\$	<u>(65,578,043)</u>
<u>Excess of Additions Over Deductions</u>	\$	<u>486,931,138</u>
 <u>Reconciliation of Asset Balances</u>		
Market Value of Assets as of 9/30/2012	\$	3,681,525,782
Excess of Additions over Deductions		<u>486,931,138</u>
Market Value of Assets as of 9/30/2013*	\$	<u>4,168,456,920</u>

* The Market Value of Assets shown above is used in the determination of the Actuarial Value of Assets (Schedule B).



SCHEDULE D

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS (DEMOGRAPHIC ASSUMPTIONS ADOPTED ON OCTOBER 20, 2011) (ECONOMIC ASSUMPTIONS ADOPTED ON NOVEMBER 15, 2012)

VALUATION DATE: All assets and liabilities are computed as of October 1, 2013. Demographic information was collected as of June 30, 2013.

INVESTMENT RATE OF RETURN: 6.50% per annum, compounded annually (net of investment expenses).

INFLATION ASSUMPTION: 3.50% per annum.

PAYROLL GROWTH ASSUMPTION: 4.25% per annum.

PERCENT MARRIED: 64% of Teachers are assumed to be married and 80% of Police Officers and Firefighters are assumed to be married, with the wife 3 years younger than the husband. Active members are assumed to have one dependent child aged 10.

ACTUARIAL METHOD: Entry Age Normal Cost Method.

ASSETS: The method of valuing assets is intended to recognize a “smoothed” market value of assets. Under this method, the difference between actual return on market value from investment experience and the expected return on market value is recognized over a seven-year period. The actuarial value of assets is constrained to an 80% to 120% corridor around market value of assets. In addition, there is an adjustment made for the effect of the adjustment pursuant to D.C. Code §1-907.02(c).

WITHDRAWAL ASSUMPTION: For Teachers, it was assumed that 35% of the vested members who terminate elect to withdraw their contributions while the remaining 65% elect to leave their contributions in the plan in order to be eligible for a benefit at their retirement date. For Police Officers and Firefighters, it was assumed that 80% of the vested members who terminate elect to withdraw their contributions while the remaining 20% elect to leave their contributions in the plan.

OTHER ASSUMPTIONS: To value the pre-retirement death benefit for Police Officers and Firefighters, the benefit form for all retirements (normal or disabled) is assumed to be a 67.8% Joint and Survivor annuity for all participants (based on 40% of average pay survivor benefits). One-fourth of all Police Officer and Firefighter active deaths are assumed to occur in the line of duty.

COST OF LIVING ADJUSTMENT: The cost of living as measured by the Consumer Price Index (CPI) will increase at the rate of 3.5% per year.

MILITARY SERVICE: All Police and Fire members assumed to have 0.40 years of military service at retirement.

ADMINISTRATIVE EXPENSES: Budgeted administrative expenses of 1.20% of payroll are added to the normal cost rate.



SCHEDULE D

(Continued)

TEACHERS

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include inflation at 4.25% per annum:

Pay Increase Assumptions for an Individual Member			
Years of Service	Merit & Seniority	Inflation & Productivity (Economy)	Total Increase (Next Year)
5	4.00%	4.25%	8.25%
10	3.00	4.25	7.25
15	0.50	4.25	4.75
20	0.20	4.25	4.45
25	0.20	4.25	4.45
30	0.20	4.25	4.45
35	0.20	4.25	4.45

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal, service retirement, and disability are shown in the following tables:

Percent of Members Separating Within the Next Year						
Sample Ages	Withdrawal			Service Retirement		Disability Retirement
	0 to 3 yrs of service	4 to 9 yrs of service	10 & up yrs of service	Under 30 yrs service	30 & up yrs service	
20	25.0%	20.0%	0.00%			0.03%
25	23.5	20.0	0.00			0.03
30	22.0	16.0	3.75			0.05
35	20.5	14.0	3.75			0.07
40	19.0	12.0	3.75			0.09
45	17.5	10.0	3.75			0.15
50	16.0	10.0	3.75	2.5%	2.5%	0.22
55	14.5	10.0	3.75	6.0	33.0	0.32
60	13.0	10.0	3.75	27.0	25.0	0.40
62	0.0	0.0	0.00	25.0	25.0	
65				20.0	25.0	
70				30.0	30.0	
71				25.0	40.0	
75				100.0	100.0	

MORTALITY: The RP-2000 Combined Mortality Table projected with Scale AA to 2015, set back 3 years for females is used for healthy active members, retirees, and beneficiaries. The RP-2000 Disabled Mortality Table set back 1 year for males and set back 5 years for females is used for disabled retirees. Mortality improvement is anticipated under these assumptions as recent mortality experience shows actual deaths are approximately 7-8% greater for healthy lives and 9% greater for disabled lives than expected under the selected tables.



SCHEDULE D

(Continued)

POLICE OFFICERS

SALARY INCREASES: Police Officers are assumed to receive a longevity increase of 5%, 10%, 15%, and 20% applied to individual base pay after 15, 20, 25, and 30 years of service. These are approximated by increases of 3.5% to final average salary. Representative values of the assumed annual rates of future salary increases before longevity increases are as follows and include inflation at 4.25% per annum:

Pay Increase Assumptions for an Individual Member			
Years of Service	Merit & Seniority	Inflation & Productivity (Economy)	Total Increase (Next Year)
5	3.56%	4.25%	7.81%
10	2.58	4.25	6.83
15	2.31	4.25	6.56
20	2.50	4.25	6.75
25	1.10	4.25	5.35
30	0.50	4.25	4.75
35	0.00	4.25	4.25

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal, service retirement, and disability are shown in the following tables:

Percent of Members Separating Within the Next Year						
Sample Ages	Withdrawal				Years of Service	Service Retirement ³
	(3 years of service & up) ¹		Disability Retirement ²			
	Males	Females	Males	Females		
20	6.00%	2.50%	0.02%	0.04%	20	12.5%
25	6.00	2.50	0.05	0.08	25	22.0
30	4.25	3.50	0.10	0.12	30	15.0
35	2.50	2.00	0.22	0.28	35	20.0
40	1.75	1.50	0.25	0.40	40	20.0
45	1.25	1.25	0.30	0.62		
50	1.25	1.25	0.40	0.70		
55	1.25	1.25	0.60	0.75		
60	0.00	0.00	0.80	0.90		

¹ Members of any age with less than 3 years of service have a 10% withdrawal assumption.

² It is assumed that 75% of the disabilities are due to accidents in the line of duty and the "percent of disability" is assumed to be 100%.

³ 100% of active members are assumed to retire at age 65, regardless of service.



MORTALITY: The RP-2000 Combined Mortality Table projected with Scale AA to 2015 set forward 1 year for females is used for healthy active members, retirees and beneficiaries. The following disability mortality table is used for disabled retirees.

Disabled Retiree Mortality		
Sample Ages	Males	Females
20	0.80%	0.50%
30	0.80	0.50
40	0.80	0.50
50	0.80	0.50
60	1.16	0.74
70	2.35	1.55
80	5.78	3.76
90	13.95	10.87
100	51.48	49.93

Mortality improvement is anticipated under these assumptions as recent mortality experience shows actual deaths are approximately 7% greater for healthy lives and 6% greater for disabled lives than expected under the selected tables.



SCHEDULE D

(Continued)

FIREFIGHTERS

SALARY INCREASES: Firefighters are assumed to receive a longevity increase of 5%, 10%, 15%, and 20% applied to individual base pay after 15, 20, 25, and 30 years of service. These are approximated by increases of 3.5% to final average salary. Representative values of the assumed annual rates of future salary increases before longevity increases are as follows and include inflation at 4.25% per annum:

Pay Increase Assumptions for an Individual Member			
Years of Service	Merit & Seniority	Inflation & Productivity (Economy)	Total Increase (Next Year)
5	2.50%	4.25%	6.75%
10	2.50	4.25	6.75
15	2.50	4.25	6.75
20	2.50	4.25	6.75
25	2.50	4.25	6.75
30	2.50	4.25	6.75
35	2.50	4.25	6.75

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal, service retirement, and disability are shown in the following tables:

Percent of Members Separating Within the Next Year				
Sample Ages	Withdrawal			
	(2 years of service & up) ¹	Disability Retirement ²	Years of Service	Service Retirement ³
20	3.50%	0.01%	20	12.5%
25	3.50	0.02	25	12.5
30	2.00	0.15	30	20.0
35	1.00	0.20	35	40.0
40	1.00	0.35	40	40.0
45	1.50	0.45		
50	1.50	0.52		
55	0.00	0.60		
60	0.00	0.70		

¹Members of any age with less than 2 years of service have a 9% withdrawal assumption.

²It is assumed that 75% of the disabilities are due to accidents in the line of duty and the "percent of disability" is assumed to be 100%.

³100% of active members are assumed to retire at age 60, regardless of service.



MORTALITY: The RP-2000 Combined Mortality Table projected with Scale AA to 2015 set forward 1 year for females is used for healthy active members, retirees and beneficiaries. The following disability mortality table is used for disabled retirees.

Disabled Retiree Mortality		
Sample Ages	Males	Females
20	0.59%	0.37%
30	0.59	0.37
40	0.59	0.37
50	0.59	0.37
60	0.85	0.54
70	1.72	1.13
80	4.22	2.75
90	10.19	7.94
100	37.60	36.47

Mortality improvement is anticipated under these assumptions as recent mortality experience shows actual deaths are approximately 7% greater for male and 1% greater for female healthy lives and 8% greater for disabled lives than expected under the selected tables. Police and Fire are combined in the valuation results and the female healthy life population is much greater for Police than Fire so the smaller margin under Fire is not an issue at this time.



SCHEDULE E

SUMMARY OF DISTRICT OF COLUMBIA TEACHERS' RETIREMENT PLAN PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

Effective Date Established on July 1, 1997. The Treasury Department is responsible for paying all benefits accrued before this date.

DEFINITIONS

Affiliated Employers District of Columbia Public Schools, Public Charter Schools

Covered Members 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 Program.

Service Credit One year of school service is given for each year of employment with DCPS. After five years of service are accrued, additional service may be purchased or credited for service outside of DCPS.

Average Salary Highest 36 consecutive months of pay, divided by three.

Vested Members who accrue five or more years of Service Credit are vested for benefits. If these members leave service they may leave their Member Contribution Accounts with the Plan for a future benefit when reaching eligibility (deferred vested in this report).

CONTRIBUTIONS

Member Contributions Members hired before November 1, 1996 are required to contribute 7% of annual pay. Members hired on or after November 1, 1996 contribute 8% of annual pay. Interest is not credited to each Member's accumulated contributions.

Refund of Member Contributions In the event a member leaves service for a reason other than death or retirement, member contribution accounts are refunded upon request.



SERVICE RETIREMENT

Eligibility

The Age and Service Credit requirements to be eligible for a full Service Retirement are listed below:

- **Members hired before November 1, 1996**

Age	Service Credit
55	30, including 5 years school service
60	20, including 5 years school service
62	5 years school service

- **Members hired on and after November 1, 1996**

Age	Service Credit
Any Age	30, including 5 years school service
60	20, including 5 years school service
62	5 years school service

Benefit

For members hired before November 1, 1996:

- 1.5% of Average Salary times service up to 5 years, plus
- 1.75% of Average Salary times service between 5 and 10 years, plus
- 2.0% of Average Salary times service over 10 years.

For members hired on or after November 1, 1996:

- 2.0% of Average Salary times service.

All members receive a minimum benefit of 1.0% of Average Salary plus \$25 for each year of service.

INVOLUNTARY SERVICE RETIREMENT

Eligibility

The Age and Service Credit requirements to be eligible for a Reduced Service Retirement are listed below:

- **All Members, regardless of date of hire**

Age	Service Credit
Any Age	25, including 5 years school service
50	20, including 5 years school service

Benefit

Service Retirement Benefit reduced by 1/6% per month (or 2% per year) that date of retirement precedes age 55.





DISABILITY RETIREMENT

- Eligibility** Active members with five or more years of school service credit are covered (vested) for disability retirement. To be eligible, the member must be found to be totally and permanently disabled (mentally or physically) from regular and gainful employment.
- Benefit** Equal to Service Retirement benefit. Minimum benefit is the lesser of a) or b):
- a) 40% of Average Salary
 - b) Calculated benefit amount by projecting service to age 60.

SURVIVOR BENEFITS

LUMP SUM

- Eligibility** Death before completion of 18 months of school service or death without an eligible spouse, child or parent.
- Benefit** Refund of member contributions.

SPOUSE ONLY

- Eligibility** Death before retirement and married for at least two years, or have a child by the marriage.
- Benefit** 55% of Service Retirement benefit. Minimum benefit is the lesser of a) or b):
- a) 55% of 40% of Average Salary
 - b) 55% of the calculated benefit amount by projecting service to age 60.

SPOUSE & DEPENDENT CHILDREN

- Eligibility** Death before retirement and married for at least two years, or have a child by the marriage. Children must be unmarried and under age 18, or 22 if full-time student. Also, any dependent child because of a disability incurred before age 18. Death does not have to occur before retirement for the children's benefit.
- Spouse Benefit** 55% of Service Retirement benefit. Minimum benefit is the lesser of a) or b):
- a) 55% of 40% of Average Salary
 - b) 55% of the calculated benefit amount by projecting service to age 60.

Child Benefit

- A benefit per child equal to the smallest of a) or b) or c):
- a) 60% of Average Salary divided by the number of eligible children
 - b) \$6,024* (if hired before 1/1/1980), \$5,820* (if hired between 1/1/1980 and 10/31/1996), or \$5,700* (if hired on or after 11/1/1996) per child
 - c) \$18,072* (if hired before 1/1/1980), \$17,460* (if hired between 1/1/1980 and 10/31/1996), or \$17,460* (if hired on or after 11/1/1996) divided by the number of children.



DEPENDENT CHILDREN ONLY

Eligibility

Children must be unmarried and under age 18, or 22 if full-time student. Also, any dependent child because of a disability incurred before age 18. Death does not have to occur before retirement for the children's benefit.

Benefit

A benefit per child equal to the smallest of a) or b) or c):

- d) 75% of Average Salary divided by the number of eligible children
- e) \$7,356* (if hired before 1/1/1980), \$7,092* (if hired between 1/1/1980 and 10/31/1996), or \$6,912* (if hired on or after 11/1/1996) per child
- f) \$22,068* (if hired before 1/1/1980), \$21,276* (if hired between 1/1/1980 and 10/31/1996), or \$20,736* (if hired on or after 11/1/1996) divided by the number of children.

PARENTS ONLY

Eligibility

Death before retirement and no eligible spouse or children, and parents must receive at least one-half of their total income from member.

Benefit

55% of Service Retirement benefit. Minimum benefit is the lesser of a) or b):

- a) 55% of 40% of Average Salary
- b) 55% of the calculated benefit amount by projecting service to age 60.

*Survivor benefit amounts are as of March 2009, and are subject to annual inflation adjustments.

DEFERRED VESTED RETIREMENT

Eligibility

Active members with five or more years of school service credit .

Benefit

Benefit is calculated in the same manner as Service Retirement benefit and may be collected starting at age 62.

OPTIONS

Retirement and disability benefits are payable for the life of the retired member. Optional reduced benefits may be elected at the time of retirement to provide for continuation of a reduced benefit amount to a designated beneficiary. Optional forms include:

a) **Reduced Annuity with a Maximum Survivor Annuity (to Spouse)**

Reduced benefit paid to member so that upon member's death, the spouse will receive 55% of the unreduced normal life annuity. Member's benefit is reduced by 2.5% of retirement benefit, up to \$3,600, plus 10% of any retirement benefit over \$3,600.



b) Reduced Annuity with a Partial Survivor Annuity (to Spouse)

Reduced benefit paid to member so that upon member's death, the spouse will receive a partial annuity that can range from \$1 up to 55% of the unreduced normal life annuity amount. Member's benefit is reduced by the same amount as option a, multiplied by the ratio of the chosen benefit percent to the maximum benefit percent (55%).

c) Reduced Annuity with a Life Insurance Benefit

Member elects a life insurance amount, payable in a lump sum to designated beneficiary upon member's death.

d) Reduced Annuity with a Survivor Annuity to a Person with an Insurable Interest

A 55% joint and survivor annuity where the original benefit is reduced by 10% plus an additional 5% for each full 5 years, up to 25 years, that the designated beneficiary is younger than the member. Maximum reduction is 40% for any beneficiary who is 25 or more years younger than the member.

COST OF LIVING ADJUSTMENTS

Each year on March 1st, benefits which have been paid for at least twelve months preceding March 1st are increased. The increase is equal to the annual CPI. COLA's are included in benefit payments on and after April 1st.

For members hired on or after November 1, 1996, the cost of living increase is limited to 3% per year. In addition, cost of living adjustments do not apply to retirement benefit payments resulting from voluntary contributions.



SCHEDULE E

(Continued)

SUMMARY OF DISTRICT OF COLUMBIA POLICE OFFICERS' & FIREFIGHTERS' RETIREMENT PLAN PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

Effective Date Established on July 1, 1997. The Treasury Department is responsible for paying all benefits accrued before this date.

DEFINITIONS

Affiliated Employers District of Columbia Police Officers and Firefighters, except Police cadets.

Covered Members All employees of DC Police Department and Fire Department become members on their first day of active duty. Membership is not automatic for uniformed EMT Firefighters.

Service Credit One year of service is given for each year of employment with DCPD or DCFD. Additional service may be purchased or credited for lateral transfer service, EMT service, prior military service, and certain civilian service.

Average Salary For members hired before February 15, 1980, the highest 12 consecutive months of pay. For members hired on or after February 15, 1980, the highest 36 consecutive months of pay, divided by 3.

Vested Members who accrue five or more years of Service Credit are vested for benefits. If these members leave service they may leave their Member Contribution Accounts with the Plan for a future benefit when reaching eligibility (deferred vested in this report).

CONTRIBUTIONS

Member Contributions Members hired before November 10, 1996 contribute 7.0% of salary. Members hired on or after November 10, 1996 contribute 8.0% of salary. Member contributions, together with any purchased service credit payments, are credited to individual Member Contribution Accounts. No interest is accrued on contributions.

Refund of Member Contributions In the event a member leaves service for a reason other than death or retirement, member contribution accounts are refunded upon request.



SERVICE RETIREMENT

Eligibility

The Age and Service Credit requirements to be eligible for a full Service Retirement are listed below:

- **Members hired before November 10, 1996**

Age	Service Credit
Any age	20 (only if hired before 2/15/1980)
50	25 years departmental service
60	5 years departmental service

- **Members hired on and after November 10, 1996**

Age	Service Credit
Any Age	25 years departmental service
60	

Benefit

For members hired before November 10, 1996:

- 2.5% of Average Salary times departmental service up to 25 years (20 years if hired before 2/15/1980), plus
- 3.0% of Average Salary times departmental service over 25 years (or 20), plus
- 2.5% of Average Salary times purchased or credited service.

For members hired on or after November 10, 1996:

- 2.5% of Average Salary times total service.

All members are subject to a maximum benefit of 80% of Average Salary.

SERVICE-RELATED DISABILITY RETIREMENT

Eligibility

Disabled as a result of an illness or injury in the line of duty.

Benefit

For members hired before February 15, 1980:

2.5% of Average Salary times total years of service, subject to a minimum of 66-2/3% of Average Salary and a maximum of 70% of Average Salary.

For members hired on or after February 15, 1980:

70% of final pay times percentage of disability, subject to a minimum of 40% of final pay.



NONSERVICE-RELATED DISABILITY RETIREMENT

Eligibility Active members with five or more years of departmental service are covered (vested) for disability retirement. To be eligible, the member must be found to be totally and permanently disabled (mentally or physically) from regular and gainful employment.

Benefit **For members hired before February 15, 1980:**
2.0% of Average Salary times total years of service, subject to a minimum of 40% of Average Salary and a maximum of 70% of Average Salary.

For members hired on or after February 15, 1980:
70% of final pay times percentage of disability, subject to a minimum of 30% of final pay.

SURVIVOR BENEFITS

LUMP SUM

Eligibility Death before retirement without an eligible spouse or child.

Benefit Refund of member contributions according to plan order of precedence.

LUMP SUM – DEATH IN LINE OF DUTY

Eligibility Death occurring in the line of duty, not resulting from willful misconduct.

Benefit \$50,000

SPOUSE ONLY – DEATH IN LINE OF DUTY

Eligibility Member killed in line of duty, after December 29, 1993.

Benefit 100% of final pay.

SPOUSE ONLY – DEATH NOT IN LINE OF DUTY

Eligibility Member death, not in line of duty, after December 29, 1993. If retired, must be married for at least one year or have a child by the marriage.

Benefit 40% of the greater of a) or b):

- a) Average Salary
- b) Salary for step 6 salary class 1 of the DC Police and Fireman's Salary Act in effect, adjusted for cost-of-living increases if death occurs after retirement.

Benefit cannot be higher than rate of pay at death (or retirement if death occurs after retirement).



SPOUSE & DEPENDENT CHILDREN

Eligibility

Member death, not in line of duty, after December 29, 1993. If retired, must be married for at least one year or have a child by the marriage. Children must be unmarried and under age 18, or 22 if full-time student. Also, any dependent child because of a disability incurred before age 18. Death does not have to occur before retirement for the children's benefit.

Spouse Benefit

40% of the greater of a) or b):

- a) Average Salary
- b) Salary for step 6 salary class 1 of the DC Police and Fireman's Salary Act in effect, adjusted for cost-of-living increases if death occurs after retirement.

Benefit cannot be higher than rate of pay at death (or retirement if death occurs after retirement).

Child Benefit

A benefit per child equal to the smallest of a) or b) or c):

- a) 60% of Average Salary divided by the number of eligible children
- b) \$3,552* (if hired before 11/1/1996) or \$3,480* (if hired on or after 11/1/1996) per child
- c) \$10,656* (if hired before 11/1/1996) or \$10,490* (if hired on or after 11/1/1996) divided by the number of children.

DEPENDENT CHILDREN ONLY

Eligibility

Children must be unmarried and under age 18, or 22 if full-time student. Also, any dependent child because of a disability incurred before age 18. Death does not have to occur before retirement for the children's benefit.

Benefit

75% of Average Salary divided by the number of eligible children, adjusted for cost-of-living increases.

*Survivor benefit amounts are as of March 2009, and are subject to annual inflation adjustments.

DEFERRED VESTED RETIREMENT

Eligibility

Active members with five or more years of departmental service.

Benefit

Benefit is calculated in the same manner as Service Retirement benefit and may be collected starting at age 55.



OPTIONS

Retirement and disability benefits are payable for the life of the retired member. This includes an unreduced joint and survivor annuity as defined above in the “Survivor Benefits – Spouse and Dependent Children” section.

An optional reduced benefit may be elected at the time of retirement to provide for an additional survivor benefit to a designated beneficiary. Member’s original annuity is reduced by 10% and that amount is added to the survivor’s benefit. If the designated beneficiary is more than five years younger than the member, the additional amount will be reduced by 5% for each full five years that the beneficiary is younger than the member, subject to a maximum of 40%.

COST OF LIVING ADJUSTMENTS

Each year on March 1st, benefits which have been paid for at least twelve months preceding March 1st are increased. The increase is equal to the annual CPI. COLA’s are included in benefit payments on and after April 1st.

For members hired on or after November 10, 1996, the cost of living increase is limited to 3% per year. Members (not beneficiaries) hired before February 15, 1980, will receive equalization pay, which is defined as the percentage increase as active employees’ salary increases.



SCHEDULE F

SCHEDULES OF MEMBER DATA

TABLE 1

**RECONCILIATION OF MEMBER DATA
AS OF OCTOBER 1, 2013**

TEACHERS' RETIREMENT PLAN

	Actives	Retirees	Disabled	Beneficiaries	Vested Terms	Total
1. Headcounts as of October 1, 2012	4,495	3,055	114	116	920	8,700
2. Change in status during the year:						
a. Death		(36)	(5)	(3)		(44)
b. Disabled	(4)		9		(5)	
c. Retired	(102)	195			(93)	
d. Vested Termination	(170)				170	
e. Nonvested Termination	(385)					(385)
f. Benefits Expired/Refund	(129)			(3)	(60)	(192)
3. New member due to:						
a. New Hire	639					639
b. Rehire	35				(20)	15
c. Death of Participant				3		3
d. Adjustments		1	1	1		3
4. Headcounts as of October 1, 2013	4,379	3,215	119	114	912	8,739



SCHEDULE F

SCHEDULES OF MEMBER DATA

TABLE 2

**RECONCILIATION OF MEMBER DATA
AS OF OCTOBER 1, 2013**

POLICE OFFICERS' RETIREMENT PLAN

	Actives	Retirees	Disabled	Beneficiaries	Vested Terms	Total
1. Headcounts as of October 1, 2012	3,810	897	279	322	127	5,435
2. Change in status during the year:						
a. Death		(6)	(4)	(7)	(1)	(18)
b. Disabled	(5)		8		(3)	
c. Retired	(68)	81			(13)	
d. Vested Termination	(51)				51	
e. Nonvested Termination	(16)					(16)
f. Benefits Expired/Refund	(48)			(7)	(11)	(66)
3. New member due to:						
a. New Hire	213					213
b. Rehire	11				(11)	
c. Death of Participant				15		15
d. Adjustments		1		5	1	7
4. Headcounts as of October 1, 2013	3,846	973	283	328	140	5,570



SCHEDULE F

SCHEDULES OF MEMBER DATA

TABLE 3

**RECONCILIATION OF MEMBER DATA
AS OF OCTOBER 1, 2013**

FIREFIGHTERS' RETIREMENT PLAN

	Actives	Retirees	Disabled	Beneficiaries	Vested Terms	Total
1. Headcounts as of October 1, 2012	1,700	367	64	110	58	2,299
2. Change in status during the year:						
a. Death	(1)	(1)	(1)	(3)		(6)
b. Disabled	(3)		5		(2)	
c. Retired	(37)	45			(8)	
d. Vested Termination	(42)				42	
e. Nonvested Termination	(7)					(7)
f. Benefits Expired/Refund	(6)			(1)	(1)	(8)
3. New member due to:						
a. New Hire	56					56
b. Rehire	4				(3)	1
c. Death of Participant				4		4
d. Adjustments		3		7		10
4. Headcounts as of October 1, 2013	1,664	414	68	117	86	2,349



SCHEDULE F

TABLE 4

**SCHEDULE OF ACTIVE MEMBER DATA
AS OF OCTOBER 1, 2013**

TEACHERS' RETIREMENT PLAN

Attained Age	Completed Years of Service							Total	Payroll
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+		
Under 20	1	0	0	0	0	0	0	1	\$ 66,314
20 to 24	164	0	0	0	0	0	0	164	\$ 8,966,982
25 to 29	668	45	1	0	0	0	0	714	\$ 43,537,949
30 to 34	495	134	29	0	0	0	0	658	\$ 47,797,981
35 to 39	328	133	111	10	0	0	0	582	\$ 49,017,898
40 to 44	214	82	154	71	9	0	0	530	\$ 48,687,040
45 to 49	104	60	78	40	52	23	0	357	\$ 33,848,560
50 to 54	81	52	75	46	58	78	5	395	\$ 38,608,112
55 to 59	54	40	74	51	57	124	49	449	\$ 44,465,882
60 to 64	43	29	62	44	58	67	68	371	\$ 37,736,772
65 to 69	12	17	19	16	17	22	26	129	\$ 13,385,457
70 & Over	3	2	2	4	4	5	9	29	\$ 2,952,358
Total	2,167	594	605	282	255	319	157	4,379	\$ 369,071,305

Average Age: 42.14

Average Service: 9.95



SCHEDULE F

TABLE 5

**SCHEDULE OF ACTIVE MEMBER DATA
AS OF OCTOBER 1, 2013**

POLICE OFFICERS' RETIREMENT PLAN

Attained Age	Completed Years of Service							Total	Payroll
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+		
Under 20	1	0	0	0	0	0	0	1	\$ 55,565
20 to 24	75	0	0	0	0	0	0	75	\$ 3,861,636
25 to 29	280	117	1	0	0	0	0	398	\$ 22,887,092
30 to 34	127	375	54	0	0	0	0	556	\$ 35,764,433
35 to 39	32	156	208	65	0	0	0	461	\$ 32,674,083
40 to 44	30	104	181	204	174	0	0	693	\$ 54,051,145
45 to 49	10	65	106	107	575	99	0	962	\$ 82,503,229
50 to 54	8	18	46	33	285	167	15	572	\$ 49,288,479
55 to 59	2	3	11	8	36	28	16	104	\$ 9,268,076
60 to 64	0	0	3	3	1	1	8	16	\$ 1,405,741
65 to 69	0	0	0	0	0	0	5	5	\$ 448,840
70 & Over	0	0	0	0	0	0	3	3	\$ 285,709
Total	565	838	610	420	1,071	295	47	3,846	\$ 292,494,028

Average Age: 41.30

Average Service: 15.22



SCHEDULE F

TABLE 6

**SCHEDULE OF ACTIVE MEMBER DATA
AS OF OCTOBER 1, 2013**

FIREFIGHTERS' RETIREMENT PLAN

Attained Age	Completed Years of Service								
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+	Total	Payroll
Under 20	0	0	0	0	0	0	0	0	\$ 0
20 to 24	31	0	0	0	0	0	0	31	\$ 1,459,403
25 to 29	77	159	4	0	0	0	0	240	\$ 13,436,189
30 to 34	59	233	7	0	0	0	0	299	\$ 17,650,392
35 to 39	13	138	88	13	2	0	0	254	\$ 16,914,608
40 to 44	2	36	116	46	109	1	0	310	\$ 24,047,716
45 to 49	1	13	25	71	120	29	0	259	\$ 22,128,622
50 to 54	0	2	1	26	80	81	12	202	\$ 18,455,019
55 to 59	0	4	0	0	11	34	17	66	\$ 6,406,602
60 to 64	0	0	0	0	1	0	2	3	\$ 387,137
65 & Over	0	0	0	0	0	0	0	0	\$ 0
Total	183	585	241	156	323	145	31	1,664	\$ 120,885,688

Average Age: 39.50

Average Service: 14.22



SCHEDULE F

TABLE 7

**SCHEDULE OF RETIREE MEMBER DATA
AS OF OCTOBER 1, 2013**

**TEACHERS' RETIREMENT PLAN
DISTRICT ONLY**

Attained Age	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 20	0	\$0	0	\$0	7	\$20,045	7	\$20,045
20 to 24	0	\$0	0	\$0	1	\$6,252	1	\$6,252
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	1	\$12,516	1	\$12,516
35 to 39	0	\$0	1	\$32,580	2	\$15,570	3	\$48,150
40 to 44	0	\$0	2	\$58,440	0	\$0	2	\$58,440
45 to 49	0	\$0	2	\$48,396	1	\$11,290	3	\$59,686
50 to 54	9	\$210,160	10	\$356,736	7	\$77,842	26	\$644,738
55 to 59	109	\$3,030,013	24	\$794,040	10	\$81,288	143	\$3,905,341
60 to 64	646	\$13,437,141	40	\$817,656	29	\$142,908	715	\$14,397,705
65 to 69	1,319	\$19,807,304	33	\$484,320	28	\$224,918	1,380	\$20,516,542
70 to 74	782	\$9,342,771	6	\$37,536	15	\$50,628	803	\$9,430,935
75 to 79	265	\$2,825,800	1	\$2,220	8	\$52,397	274	\$2,880,417
80 to 84	70	\$766,774	0	\$0	5	\$56,411	75	\$823,185
85 to 89	13	\$130,856	0	\$0	0	\$0	13	\$130,856
90 to 94	2	\$31,475	0	\$0	0	\$0	2	\$31,475
95 & Over	0	\$0	0	\$0	0	\$0	0	\$0
Total	3,215	\$49,582,294	119	\$2,631,924	114	\$752,065	3,448	\$52,966,283

Average Age: 68.37



SCHEDULE F

TABLE 8

**SCHEDULE OF RETIREE MEMBER DATA
AS OF OCTOBER 1, 2013**

**TEACHERS' RETIREMENT PLAN
FEDERAL PLUS DISTRICT**

Attained Age	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 20	0	\$0	0	\$0	8	\$51,432	8	\$51,432
20 to 24	0	\$0	0	\$0	2	\$12,828	2	\$12,828
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	1	\$12,516	1	\$12,516
35 to 39	0	\$0	1	\$32,580	2	\$22,092	3	\$54,672
40 to 44	0	\$0	2	\$58,440	3	\$19,980	5	\$78,420
45 to 49	0	\$0	2	\$48,396	2	\$18,240	4	\$66,636
50 to 54	9	\$314,196	15	\$468,252	9	\$160,332	33	\$942,780
55 to 59	110	\$5,432,676	27	\$857,616	15	\$319,140	152	\$6,609,432
60 to 64	653	\$31,420,116	48	\$1,438,908	40	\$632,196	741	\$33,491,220
65 to 69	1,411	\$65,072,340	74	\$2,181,756	57	\$1,103,016	1,542	\$68,357,112
70 to 74	1,095	\$49,180,560	44	\$1,190,844	60	\$1,007,028	1,199	\$51,378,432
75 to 79	815	\$37,313,916	47	\$1,402,932	63	\$1,379,988	925	\$40,096,836
80 to 84	645	\$27,983,208	39	\$1,153,579	63	\$1,399,476	747	\$30,536,263
85 to 89	373	\$15,517,464	33	\$1,136,628	56	\$1,292,220	462	\$17,946,312
90 to 94	195	\$8,445,720	24	\$920,424	31	\$827,112	250	\$10,193,256
95 & Over	73	\$3,204,960	11	\$319,992	14	\$338,604	98	\$3,863,556
Total	5,379	\$243,885,156	367	\$11,210,347	426	\$8,596,200	6,172	\$263,691,703

Average Age: 73.72



SCHEDULE F

TABLE 9

**SCHEDULE OF RETIREE MEMBER DATA
AS OF OCTOBER 1, 2013**

**POLICE OFFICERS' RETIREMENT PLAN
DISTRICT ONLY**

Attained Age	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 20	0	\$0	0	\$0	51	\$363,836	51	\$363,836
20 to 24	0	\$0	0	\$0	12	\$48,743	12	\$48,743
25 to 29	0	\$0	1	\$24,648	0	\$0	1	\$24,648
30 to 34	0	\$0	2	\$69,624	1	\$26,736	3	\$96,360
35 to 39	0	\$0	9	\$247,632	2	\$81,492	11	\$329,124
40 to 44	0	\$0	44	\$1,475,544	20	\$376,143	64	\$1,851,687
45 to 49	2	\$37,555	84	\$2,835,816	14	\$172,393	100	\$3,045,764
50 to 54	185	\$6,839,355	70	\$2,578,704	27	\$402,867	282	\$9,820,926
55 to 59	350	\$8,906,745	48	\$997,807	39	\$482,549	437	\$10,387,101
60 to 64	305	\$4,613,507	20	\$145,743	56	\$824,804	381	\$5,584,054
65 to 69	114	\$875,887	5	\$83,015	59	\$895,974	178	\$1,854,876
70 to 74	17	\$142,903	0	\$0	28	\$482,750	45	\$625,653
75 to 79	0	\$0	0	\$0	11	\$223,879	11	\$223,879
80 to 84	0	\$0	0	\$0	3	\$49,320	3	\$49,320
85 to 89	0	\$0	0	\$0	4	\$64,693	4	\$64,693
90 to 94	0	\$0	0	\$0	1	\$20,952	1	\$20,952
95 & Over	0	\$0	0	\$0	0	\$0	0	\$0
Total	973	\$21,415,952	283	\$8,458,533	328	\$4,517,131	1,584	\$34,391,616

Average Age: 56.86



SCHEDULE F

TABLE 10

**SCHEDULE OF RETIREE MEMBER DATA
AS OF OCTOBER 1, 2013**

**POLICE OFFICERS' RETIREMENT PLAN
FEDERAL PLUS DISTRICT**

Attained Age	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 20	0	\$0	0	\$0	58	\$633,528	58	\$633,528
20 to 24	0	\$0	0	\$0	14	\$198,300	14	\$198,300
25 to 29	0	\$0	1	\$24,648	0	\$0	1	\$24,648
30 to 34	0	\$0	2	\$69,624	2	\$62,064	4	\$131,688
35 to 39	0	\$0	9	\$247,632	2	\$81,492	11	\$329,124
40 to 44	0	\$0	46	\$1,513,824	22	\$641,388	68	\$2,155,212
45 to 49	2	\$50,172	91	\$2,978,136	20	\$496,320	113	\$3,524,628
50 to 54	185	\$12,954,876	93	\$3,106,404	44	\$1,323,012	322	\$17,384,292
55 to 59	391	\$25,971,180	95	\$3,703,368	91	\$2,414,624	577	\$32,089,172
60 to 64	781	\$43,062,647	150	\$6,372,612	168	\$4,470,220	1,099	\$53,905,479
65 to 69	958	\$50,615,068	181	\$7,388,844	217	\$5,949,904	1,356	\$63,953,816
70 to 74	511	\$27,296,760	138	\$5,976,132	202	\$5,689,152	851	\$38,962,044
75 to 79	276	\$14,698,284	106	\$4,892,124	187	\$5,700,216	569	\$25,290,624
80 to 84	93	\$5,652,888	83	\$4,109,778	117	\$3,641,568	293	\$13,404,234
85 to 89	38	\$2,876,700	60	\$3,289,488	127	\$3,824,148	225	\$9,990,336
90 to 94	11	\$849,144	16	\$880,968	66	\$2,105,976	93	\$3,836,088
95 & Over	2	\$166,128	8	\$505,440	31	\$1,014,048	41	\$1,685,616
Total	3,248	\$184,193,847	1,079	\$45,059,022	1,368	\$38,245,960	5,695	\$267,498,829

Average Age: 67.13



SCHEDULE F

TABLE 11

**SCHEDULE OF RETIREE MEMBER DATA
AS OF OCTOBER 1, 2013**

**FIREFIGHTERS' RETIREMENT PLAN
DISTRICT ONLY**

Attained Age	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 20	0	\$0	0	\$0	22	\$172,249	22	\$172,249
20 to 24	0	\$0	0	\$0	5	\$109,872	5	\$109,872
25 to 29	0	\$0	1	\$21,408	1	\$1,563	2	\$22,971
30 to 34	0	\$0	1	\$37,584	1	\$2,504	2	\$40,088
35 to 39	0	\$0	3	\$86,280	1	\$23,640	4	\$109,920
40 to 44	0	\$0	8	\$278,976	4	\$118,338	12	\$397,314
45 to 49	0	\$0	11	\$322,920	7	\$103,133	18	\$426,053
50 to 54	62	\$2,394,405	7	\$251,892	4	\$86,217	73	\$2,732,514
55 to 59	175	\$5,978,676	17	\$333,375	13	\$224,102	205	\$6,536,153
60 to 64	121	\$2,454,938	18	\$158,499	19	\$408,748	158	\$3,022,185
65 to 69	48	\$678,230	2	\$1,541	14	\$236,137	64	\$915,908
70 to 74	8	\$77,408	0	\$0	12	\$264,435	20	\$341,843
75 to 79	0	\$0	0	\$0	9	\$192,111	9	\$192,111
80 to 84	0	\$0	0	\$0	5	\$118,860	5	\$118,860
85 to 89	0	\$0	0	\$0	0	\$0	0	\$0
90 to 94	0	\$0	0	\$0	0	\$0	0	\$0
95 & Over	0	\$0	0	\$0	0	\$0	0	\$0
Total	414	\$11,583,657	68	\$1,492,475	117	\$2,061,909	599	\$15,138,041

Average Age: 57.76



SCHEDULE F

TABLE 12

**SCHEDULE OF RETIREE MEMBER DATA
AS OF OCTOBER 1, 2013**

**FIREFIGHTERS' RETIREMENT PLAN
FEDERAL PLUS DISTRICT**

Attained Age	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 20	0	\$0	0	\$0	22	\$261,744	22	\$261,744
20 to 24	0	\$0	0	\$0	5	\$144,948	5	\$144,948
25 to 29	0	\$0	1	\$21,408	1	\$3,876	2	\$25,284
30 to 34	0	\$0	1	\$37,584	1	\$3,600	2	\$41,184
35 to 39	0	\$0	3	\$86,280	1	\$23,640	4	\$109,920
40 to 44	0	\$0	8	\$278,976	5	\$189,600	13	\$468,576
45 to 49	0	\$0	11	\$322,920	9	\$216,768	20	\$539,688
50 to 54	62	\$4,469,952	10	\$313,308	10	\$233,256	82	\$5,016,516
55 to 59	178	\$13,403,448	34	\$1,441,176	24	\$656,388	236	\$15,501,012
60 to 64	162	\$11,164,644	47	\$2,234,052	41	\$1,179,096	250	\$14,577,792
65 to 69	211	\$13,713,852	50	\$2,422,795	57	\$1,643,316	318	\$17,779,963
70 to 74	226	\$14,230,800	91	\$4,706,579	96	\$2,766,111	413	\$21,703,490
75 to 79	126	\$7,697,712	56	\$2,556,420	67	\$2,018,616	249	\$12,272,748
80 to 84	54	\$3,488,508	43	\$2,177,088	79	\$2,485,032	176	\$8,150,628
85 to 89	28	\$1,977,072	26	\$1,439,400	74	\$2,497,584	128	\$5,914,056
90 to 94	4	\$228,240	14	\$692,695	38	\$1,332,720	56	\$2,253,655
95 & Over	0	\$0	5	\$349,848	13	\$408,948	18	\$758,796
Total	1,051	\$70,374,228	400	\$19,080,529	543	\$16,065,243	1,994	\$105,520,000

Average Age: 69.79



SCHEDULE G

SCHEDULE OF RETIREES ADDED TO AND REMOVED FROM ROLLS

**DISTRICT BENEFIT ONLY
(\$ IN THOUSANDS)**

Fiscal Year Ended	Plan	Added		Removed		Increase Due to Plan Amendments	Rolls at End of Year		Percentage Increase in Annual Allowances	Average Annual Allowances
		Number	Annual Allowances	Number	Annual Allowances		Number	Annual Allowances		
September 30, 2009	Teachers						2,770	\$31,877		\$12
	Police						1,086	\$15,990		\$15
	Fire						363	\$6,421		\$18
September 30, 2010	Teachers	203	\$4,225	32	\$337	\$1,489	2,941	\$37,254	16.9%	\$13
	Police	100	\$2,799	14	\$76	\$2,533	1,172	\$21,246	32.9%	\$18
	Fire	27	\$712	10	\$132	\$470	380	\$7,471	16.4%	\$20
September 30, 2011	Teachers	226	\$4,734	37	\$490	\$497	3,130	\$41,996	12.7%	\$13
	Police	228	\$4,291	15	\$152	\$187	1,385	\$25,572	20.4%	\$18
	Fire	98	\$2,556	7	\$86	\$18	471	\$9,958	33.3%	\$21
September 30, 2012	Teachers	204	\$4,807	49	\$594	\$1,198	3,285	\$47,407	12.9%	\$14
	Police	156	\$5,153	43	\$476	\$343	1,498	\$30,592	19.6%	\$20
	Fire	78	\$2,881	8	\$81	\$80	541	\$12,838	28.9%	\$24
September 30, 2013	Teachers	202	\$5,289	39	\$436	\$706	3,448	\$52,966	11.7%	\$15
	Police	110	\$3,746	24	\$248	\$302	1,584	\$34,392	12.4%	\$22
	Fire	64	\$2,308	6	\$50	\$42	599	\$15,138	17.9%	\$25

SCHEDULE G





SCHEDULE OF RETIREES ADDED TO AND REMOVED FROM ROLLS
FEDERAL PLUS DISTRICT BENEFIT
(\$ IN THOUSANDS)

Fiscal Year Ended	Plan	Added		Removed		Increase Due to Plan Amendments	Rolls at End of Year		Percentage Increase in Annual Allowances	Average Annual Allowances
		Number	Annual Allowances	Number	Annual Allowances		Number	Annual Allowances		
September 30, 2009	Teachers						6,006	\$232,909		\$39
	Police						5,521	\$243,698		\$44
	Fire						1,900	\$94,682		\$50
September 30, 2010	Teachers	216	\$8,146	185	\$6,969	\$7,468	6,037	\$241,554	3.7%	\$40
	Police	161	\$7,790	162	\$6,336	\$2,762	5,520	\$247,914	1.7%	\$45
	Fire	56	\$2,128	89	\$3,805	\$1,150	1,867	\$94,155	-0.6%	\$50
September 30, 2011	Teachers	239	\$8,626	163	\$6,168	\$4,092	6,113	\$248,104	2.7%	\$41
	Police	285	\$7,181	146	\$5,846	\$3,190	5,659	\$252,439	1.8%	\$45
	Fire	119	\$4,716	51	\$2,267	\$1,131	1,935	\$97,735	3.8%	\$51
September 30, 2012	Teachers	218	\$8,632	201	\$7,421	\$7,721	6,130	\$257,036	3.6%	\$42
	Police	218	\$11,195	174	\$6,844	\$6,412	5,703	\$263,202	4.3%	\$46
	Fire	106	\$5,780	67	\$3,087	\$2,339	1,974	\$102,767	5.1%	\$52
September 30, 2013	Teachers	390	\$7,883	348	\$6,676	\$5,448	6,172	\$263,691	6.3%	\$43
	Police	164	\$8,218	172	\$7,493	\$3,572	5,695	\$267,499	6.0%	\$47
	Fire	80	\$4,327	60	\$2,896	\$1,322	1,994	\$105,520	8.0%	\$53



SCHEDULE H

**TEACHERS' RETIREMENT PLAN
ANALYSIS OF FINANCIAL EXPERIENCE**

**Gains & Losses in Accrued Liabilities
Resulting from Difference Between
Assumed Experience & Actual Experience
(\$ Millions)**

Type of Activity	\$ Gain (or Loss) For Year Ending 10/1/2013	\$ Gain (or Loss) For Year Ending 10/1/2012
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (7.4)	\$ (11.0)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(2.2)	(0.4)
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(0.6)	(0.6)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	8.1	9.9
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	40.1	(6.2)
New Members. Additional unfunded accrued liability will produce a loss.	(16.5)	(13.1)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(51.4)	(72.6)
Death After Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	0.4	6.3
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(8.2)</u>	<u>(12.8)</u>
Gain (or Loss) During Year From Financial Experience	\$ (37.7)	\$ (100.5)
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes or asset transfer to U.S. Treasury.	<u>(21.5)</u>	<u>(15.4)</u>
Composite Gain (or Loss) During Year	<u>\$ (59.2)</u>	<u>\$ (115.9)</u>



SCHEDULE H

**POLICE OFFICERS' AND FIREFIGHTERS' RETIREMENT PLAN
ANALYSIS OF FINANCIAL EXPERIENCE**

**Gains & Losses in Accrued Liabilities
Resulting from Difference Between
Assumed Experience & Actual Experience
(\$ Millions)**

Type of Activity	\$ Gain (or Loss) For Year Ending 10/1/2013	\$ Gain (or Loss) For Year Ending 10/1/2012
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (7.2)	\$ 5.3
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	5.2	7.8
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	1.5	1.4
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	(2.8)	(5.2)
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	161.4	168.6
New Members. Additional unfunded accrued liability will produce a loss.	(13.5)	(9.7)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(101.9)	(150.8)
Death After Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	(0.4)	(0.6)
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>4.8</u>	<u>27.0</u>
Gain (or Loss) During Year From Financial Experience	\$ 47.1	\$ 43.8
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes or asset transfer to U.S. Treasury.	<u>(9.4)</u>	<u>0.1</u>
Composite Gain (or Loss) During Year	<u>\$ 37.7</u>	<u>\$ 43.9</u>