

The Massachusetts Bay Transportation Authority Retirement Fund

Actuarial Valuation Report

Plan Year
Fiscal Year

January 1, 2014 – December 31, 2014
January 1, 2014 – December 31, 2014

May 2015



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Section I - Overview



David L. Driscoll
Principal, Consulting Actuary

May 15, 2015

Retirement Board
Massachusetts Bay Transportation Authority Retirement Fund
One Washington Mall, Fourth Floor
Boston, MA 02108

Buck Consultants, LLC
101 Federal Street
Suite 900
Boston, MA 02110

david.driscoll@xerox.com
tel 617.275.8028
fax 201.633.5168

Dear Board Members:

The Pension Agreement covering the Massachusetts Bay Transportation Authority Retirement Fund provides that the actuary make annual actuarial valuations of the Fund and certify rates of contribution to the Retirement Board.

This report presents the results of an actuarial valuation of the Fund, prepared as of December 31, 2014, together with our recommendations regarding the rates of contribution payable beginning July 1, 2015.

This valuation is based on the assumptions adopted by the Retirement Board on the basis of an experience study covering the period January 1, 2006, through December 31, 2010. The actuarial assumptions covering termination, disability, retirement, and pre- and post-retirement mortality were changed as a result of the findings of this study. The Actuarial Assumption Subcommittee of the Board voted to increase the interest rate from 7.50% to 8.00% effective December 31, 2011. I believe that these assumptions are reasonable.

We performed the valuation using participant data and plan asset data supplied by the Authority and Retirement Fund. Although we did not audit the data, we reviewed the data for reasonableness and consistency with the prior year's information. The accuracy of the results of the valuation is dependent on the accuracy of the data.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and 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. An analysis of the potential range of such future differences is beyond the scope of this report.

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. I meet the Qualification Standards of the Academy to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and I am available to answer questions about it.

BUCK CONSULTANTS, LLC

David L. Driscoll, FSA, FCA, MAAA, EA
Principal, Consulting Actuary

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Section II - Summary of Principal Results

1. The principal results of the current and preceding years' valuations are summarized below:

Valuation Date	December 31, 2013	December 31, 2014
Number of active members	5,726	5,798
Annual compensation of all members	\$381,380,271	\$417,957,007
Annual compensation of active members below normal retirement age	\$379,071,391	\$415,146,025
Average age	47.44	47.55
Average service	11.52	11.44
Average compensation	\$66,605	\$72,086
Number of active members not accumulating creditable service	73	134
Number of retired members, beneficiaries and disabled members	6,371 ¹	6,407 ²
Annual retirement allowances	\$180,996,340	\$185,827,100
Assets for funding purposes	\$1,606,684,354	\$1,632,174,762
Unfunded accrued liability	\$757,448,781	\$815,556,295
Contribution rates required:		
Normal	9.1000%	8.9900%
Accrued liability	12.3000%	12.3800%
Expenses	<u>0.4500%</u>	<u>0.4500%</u>
Total required rate	21.8500%	21.8200%
Member excess rate	<u>0.0000%</u>	<u>0.0000%</u>
Actual contribution rate during following fiscal year	21.8500%	21.8200%

2. Valuation results as of December 31, 2014, are given in Section VI, and contribution levels are set forth in Section VII.
3. Schedule B of this report outlines the actuarial assumptions and methods used in the valuation.
4. Schedule C of this report presents a summary of the main provisions of the Fund, as interpreted in preparing the actuarial valuation.

¹ Includes 6,283 retirees and beneficiaries and 88 individuals receiving payments under QDROs.

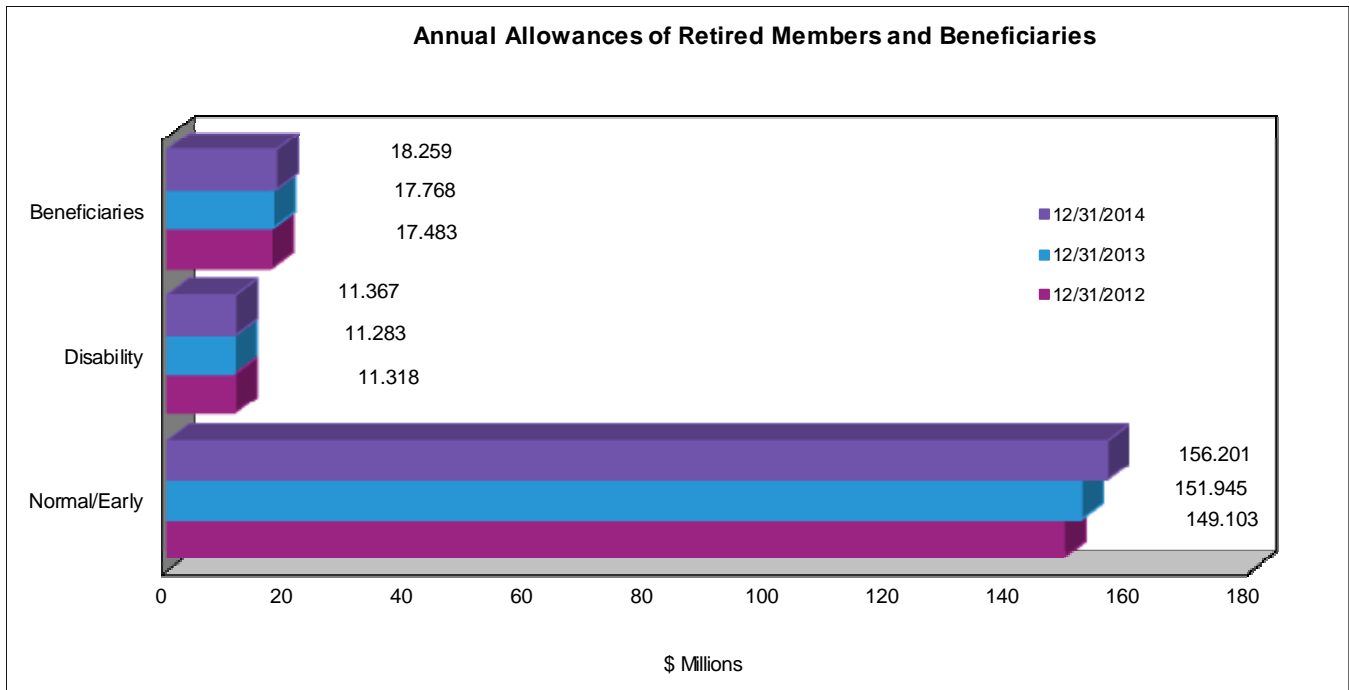
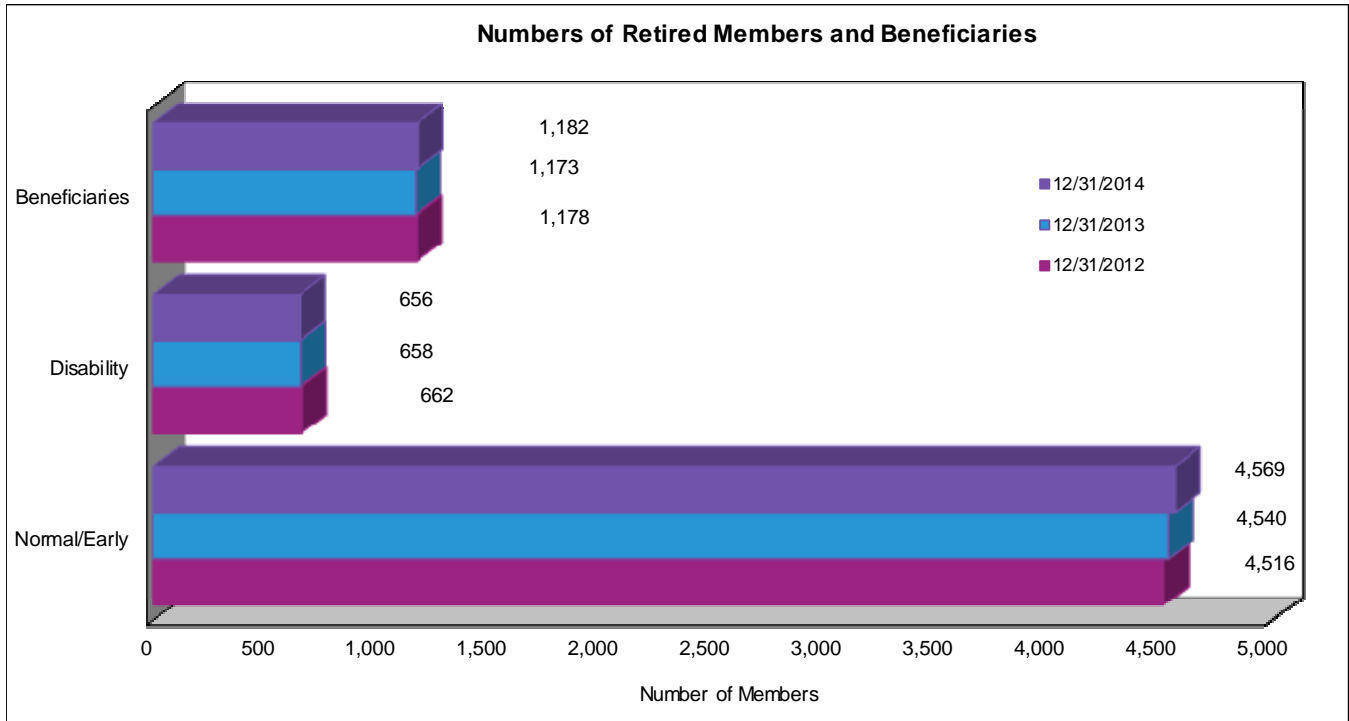
² Includes 6,309 retirees and beneficiaries and 98 individuals receiving payments under QDROs.

Section III - Membership Data

1. Employee data were furnished by the Authority and Retirement Fund.
2. Table 1 of Schedule D shows the number and annual compensation of active members, while Tables 2 of Schedule D shows the number and annual retirement allowances of retired members, disabled members and beneficiaries.
3. The following table summarizes the number and annual retirement allowances of retired members, disabled members and beneficiaries as of December 31, 2014:

Category	Number	Annual Retirement Allowances
Benefits to Members Retired on Normal, Early Normal and Reduced Early Retirement Allowances	4,569	\$ 156,201,443
Benefits to Members Retired on Disability Retirement Allowances	656	11,366,641
Benefits to Beneficiaries of Deceased Members	<u>1,182</u>	<u>18,259,016</u>
Total	6,407	\$ 185,827,100

Section III - Membership Data (continued)



Section IV - Assets

1. Asset information was obtained from the Retirement Fund office.
2. The market value of the Fund's net assets available for benefits as of December 31, 2014, amounted to \$1,587,966,489.
3. The asset method is a five-year phase-in smoothing method under which the value of assets for actuarial purposes equals market value less a five-year phase-in of the differences between actual and assumed investment return. The value of assets for actuarial purposes may not differ from the market value of assets by more than 20%. The smoothing method used to calculate the value of assets for actuarial purposes was restarted as of December 31, 2013, coincident with the change to the present method.
4. The calculation of the actuarial value of assets as of December 31, 2014, is presented below:

Market value as of December 31, 2014	1,587,966,489	(A)
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Adjustment to recognize asset gains (losses) over 5 years:

Year Ending	Asset gain (loss)	x	Adjustment factor	= Adjustment
12/31/2014	(55,260,341)		0.80	(44,208,273)
	Total			(44,208,273) (B)

Actuarial value of assets as of, December 31, 2014	1,632,174,762
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Asset gain during fiscal year ending December 31, 2014

Actual return on market value and cash flow

Income from investments and securities lending	53,976,392
Net appreciation	27,464,514
Investment expenses	(7,566,154)
Total	73,874,752 (C)

Expected 8.00% return on market value and cash flow	129,135,093 (D)
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Asset gain (loss) (C) - (D)	(55,260,341)
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The assets for valuation purposes are 102.78% of market value.

5. As of December 31, 2007, members' excess contributions (as discussed in Section V) had been fully depleted to cover the cost of the one-time cost-of-living increases negotiated during the collective bargaining related to the benefits provided under the Fund. The adjusted asset value thus requires no additional adjustment for members' excess contributions.

Section V – Member Excess Contributions

1. Effective July 1, 1998, in lieu of a reduction in the 4% contribution rate, members continued to make contributions equal to 4% of covered payroll.
2. To the extent that 4.00% exceeds the actuarially determined member required contribution rate, the excess is characterized as member excess contributions. These amounts are to be accumulated within the Retirement Fund and used to provide additional benefits.
3. The member excess rates developed in prior years are as follows:

Period	Excess Rate	Period	Excess Rate
July 1, 1999 – June 30, 2000	0.85860%	July 1, 2006 – June 30, 2007	0.39610%
July 1, 2000 – June 30, 2001	2.25810%	July 1, 2007 – June 30, 2008	0.39610%
July 1, 2001 – June 30, 2002	3.53610%	July 1, 2008 – June 30, 2009	0.00000%
July 1, 2002 – June 30, 2003	0.64610%	July 1, 2009 – June 30, 2010	0.00000%
July 1, 2003 – June 30, 2004	0.00000%	July 1, 2010 – June 30, 2011	0.00000%
July 1, 2004 – June 30, 2005	0.27610%	July 1, 2011 – June 30, 2012	0.00000%
July 1, 2005 – June 30, 2006	0.08610%	July 1, 2012 – June 30, 2013	0.00000%

4. As of December 31, 2007, members' excess contributions accumulated in prior years had been fully depleted.
5. The member excess rate for the period July 1, 2014 - June 30, 2015 is derived as follows:
 - a. Effective prior member excess rate (December 31, 2013) -1.4614%
 - b. Decrease in total required contribution rate from prior valuation (see Section VII) 0.0300%
 - c. Current member excess rate (July 1, 2014) ((a.) + 50% of (b.)) -1.4464%
6. The accumulated value of the excess contributions as of December 31, 2014 is \$0.

Section VI – Comments on Valuation

1. Schedule A of this report presents the results of the valuation as of December 31, 2014.
2. The total entry age normal accrued liability on account of benefits expected to be paid to present retired members, former members, beneficiaries, active and inactive members is \$2,447,731,057. Of this amount, \$1,682,557,007 is on account of retired members and beneficiaries, \$763,782,028 is on account of present active members and \$1,392,022 is on account of contributions expected to be returned to active members not accumulating creditable service.
3. The value of Fund assets to be used in developing required contributions to the Fund is \$1,632,174,762, including required contributions made by active members. When \$1,632,174,762 is subtracted from \$2,447,731,057, there remains \$815,556,295, which represents the unfunded actuarial accrued liability of the Fund.
4. Amortization of the unfunded liability over a 25-year period beginning December 31, 2014, in annual installments rising at the rate of 4% per year produces a first-year amortization installment with a value of \$51,397,924 as of December 31, 2014. This amounts to 12.38% of the value of annual compensation of active members below normal retirement age on that date.
5. The total entry age normal cost at December 31, 2014, is \$37,305,333, or 8.99% of the annual compensation of active members below normal retirement age on that date.
6. In addition to the amounts needed to cover amortization of the unfunded liability and normal cost, an allowance of 0.45% of annual compensation of active members below normal retirement age is included in the total required contribution to cover non-investment expenses.
7. During 2014, the unfunded actuarial accrued liability increased \$58.0 million, from \$757.4 million to \$815.4 million. The expected unfunded actuarial accrued liability is \$755.5 million and the total actuarial loss is \$59.9 million. The \$59.9 million of actuarial loss consists of \$11.1 million in actuarial asset loss and \$48.8 million in demographic losses. The actuarial asset loss of \$11.1 million is primarily due to a return on assets (as calculated by the Fund's custodian) of 4.81%, net of investment expenses, in 2014, which was below the assumed annual rate of return of 8.00%.

Section VII – Contributions to the Fund

1. Effective December 31, 2009, the contributions by members and the Authority are to provide normal contributions, amortization of the unfunded accrued liability and administrative expenses. It is assumed that investment earnings will be sufficient to cover fiduciary and investment expenses and, in addition, provide the yield assumed for actuarial purposes.
2. The valuation indicates that 8.99% of compensation is required to cover normal cost and 12.38% of compensation is required to cover amortization of the unfunded accrued liability. Adding 0.45% of compensation for anticipated administrative expenses, excluding fiduciary and other investment expenses, results in a total contribution rate of 21.82% of compensation to be paid by the Authority and the members of the Retirement Fund from July 1, 2015, through June 30, 2016.
3. This rate is 0.03% less than the 21.85% rate developed in the December 31, 2013, valuation. Under the adjustment formula contained in the July 1, 2002, Pension Agreement, 75% of the decrease will be allocated to the Authority as a decrease in contributions and 25% will be allocated to the member's required contribution rate. This results in the following rates payable during the year beginning July 1, 2015:

Authority	16.0286%
Members' required	<u>5.7914%</u>
Subtotal (Section II)	21.8200%
Members' excess (Section V)	<u>0.0000%</u>
Total	21.8200%

Section VIII – Statement 25 of the Governmental Accounting Standards Board

- Statement No. 25 of the Governmental Accounting Standards Board has been superseded by Statement No. 67, Required reporting for the Retirement Fund under Statement No. 67 will be covered in a separate report. The information below is shown nonetheless for informational purposes.
- The following schedule shows the funding progress information that would have been required by Statement No. 25 as of December 31, 2014:

Schedule of Funding Progress (,000)

Year Ending December 31	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage Covered Payroll ((b-a)/c)
2014	1,632,379	2,447,731	815,352	66.69%	415,146	196.40%
2013	1,606,684	2,364,133	757,449	67.96%	379,071	199.82%
2012	1,456,957	2,312,170	855,213	63.01%	370,873	230.59%
2011	1,550,446	2,276,750	726,304	68.10%	366,535	198.15%
2010	1,649,129	2,341,344	692,215	70.44%	356,608	194.11%
2009	1,667,362	2,216,722	549,360	75.22%	350,619	156.68%

The Actuarial Assumption Subcommittee of the Board voted to increase the interest rate from 7.50% to 8.00% effective December 31, 2011.

Schedule A – Results of the Valuation as of December 31, 2014

1.	Present Value of Future Benefits	
	(a) Present value of prospective benefits to retired members, former members and beneficiaries	\$ 1,682,557,007
	(b) Present value of prospective retirement allowances on account of present active members	1,053,139,072
	(c) Present value of members' contributions to be returned to the members not accumulating creditable service	<u>1,392,022</u>
	(d) Total actuarial liabilities	\$ 2,737,088,101
2.	Assets of the Fund for purposes of development of contributions	\$ 1,632,174,762
3.	Present value of future contributions to the fund (1(d)-2)	\$ 1,104,913,339
4.	Present value of future normal contributions to the Fund ¹	\$ 289,357,044
5.	Unfunded accrued liability (3) - (4)	\$ 815,556,295

¹ Includes future contributions of members at the rate developed in Section VII.

Schedule B – Outline of Actuarial Assumptions and Methods

Data

For all active participants, the rate of pay as of December 31, 2014 was used in the projection of future salary. This reflects recent pay adjustments but is not affected by back-payments made in 2014.

Interest rate

8.00% per annum, compounded annually, in addition to fiduciary and investment management expenses. This was selected based upon a review of the portfolio structure, recent experience, and information provided by the Board

Separations from active service

Representative values of the assumed rates of withdrawal and reduced early retirement and disability are as follows:

Age	Withdrawal and Reduced Early Retirement	Disability Male ¹	Disability - Female
20	.1097	.0007	.0011
25	.0831	.0008	.0012
30	.0622	.0010	.0015
35	.0466	.0013	.0020
40	.0453	.0017	.0026
45	.0422	.0025	.0038
50	.0422	.0042	.0063
55	.0504	.0076	.0114
60	.0696	.0150	.0225
64	.0864	.280	.0420

Representative rates of unreduced early normal retirement² allowances are as follows:

Age	Males		Females	
	In the year attaining 23 years	In years after attainment of 23 years	In the year attaining 23 years	In years after attainment of 23 years
50	28%	3%	28%	3%
55	30%	5%	30%	5%
60	36%	11%	36%	11%
62	55%	30%	55%	30%
63	55%	30%	55%	30%
64	55%	30%	55%	30%
65	55%	30%	55%	30%
66	55%	30%	55%	30%
67	55%	30%	55%	30%
68	55%	30%	55%	30%
69	55%	30%	55%	30%
70	100%	100%	55%	100%

¹ 50% of disabilities are assumed to qualify for occupational disability benefits.

² Separate tables of retirement probabilities for those hired on or after December 6, 2012, will be developed in a future experience study.

Schedule B – Outline of Actuarial Assumptions and Methods (continued)

Salary increases

4% per year. The salary increase assumption is based on actual experience and future expectations of inflation, merit, and productivity components.

Deaths before and after retirement

The UP 1994 Mortality Table for Males projected to year 2020 with Scale AA is used for all active and retired participants. The UP 1994 Mortality Table for Females projected to year 2020 with Scale AA is used for all beneficiaries. A special mortality table is used for the period after disability retirement. Among pre-retirement deaths, 7.50% are assumed to qualify for accidental death benefits.

Normal retirement

Age 65.

Percent married

90% of male members and 50% of female members under age 55 or who have less than 23 years of service are assumed to be married. 100% of employees age 55 and older or who have 23 or more years of service are assumed to be married. In each case, the female is assumed to be three years younger than the male.

Pension options

50% of male members elect a 75% joint and survivor benefit and 10% of female members elect a 50% joint and survivor benefit. All others elect a life annuity.

Fiduciary and investment management expenses

Paid from investment earnings of the Fund.

Loading or contingency reserves

None.

Valuation method

Individual entry age normal method, with normal cost calculated as a level percentage of salary for each active participant.

Asset valuation method

A five-year phase-in smoothing method is used, under which the value of assets for actuarial purposes equals market value less a five-year phase-in of the differences between actual and assumed investment return. The value of assets for actuarial purposes may not differ from the market value of assets by more than 20%.

Effective December 31, 2013, the actuarial asset method was changed from a five-year moving average of market values to on based on five-year phase-in of differences of the returns on assets from their expected values, with the smoothing restarted as of December 31, 2013.

Prior to December 31, 2013, a five-year moving average of market values method was used to compute the actuarial value of assets.

Schedule C – Summary of Main Provisions of the Fund as Interpreted for Valuation Purposes

The Massachusetts Bay Transportation Authority Retirement Fund became effective as of January 1, 1948. The following summary describes the current main membership, benefit, and contribution provisions of the Fund as interpreted for the valuation.

1 - Definitions

“Compensation” means the full regular remuneration paid to an employee, excluding any overtime pay. “Service” creditable under the Fund means all service rendered by a member prior to his normal retirement date since he last became a member for which contributions are made by the member and by the Authority. “Union” means Boston Carmen’s Union, Local Division 589 of the Amalgamated Transit Union, AFL-CIO.

2 - Membership

Each employee, including employees on a part-time basis, who is or who may become a member of the Union or any union recognized by the Authority for collective bargaining purposes is included in the membership of the Fund. Any employee who is not a member of the Union but who is in a group which was authorized to participate in the Fund is included in the membership.

3 - Benefits

Normal Retirement Allowance

Condition for Allowance

Any member may retire at age 65. A member may remain in service after the stated retirement date.

Amount of Allowance

The normal retirement allowance equals 2.46% of 3-year average annual compensation multiplied by the years of service, such allowance not to exceed 75% of such average annual compensation.

Early Normal Retirement Allowance

Condition for Allowance

Any member hired prior December 6, 2012 and has completed at least 23 years of service may retire on an early normal retirement allowance.

Any member hired on or after December 6, 2012, has attained age 55 and completed at least 25 years of service may retire on an early normal retirement allowance.

Amount of Allowance

The early normal retirement allowance is computed in the same manner as a normal retirement allowance on the basis of the compensation and service to the time of retirement.

Early Reduced Retirement Allowance

Condition for Allowance

A member who has attained age 55 and has completed at least 20 years of service may be retired on an early reduced retirement allowance.

Amount of Allowance

The early reduced retirement allowance is an immediate allowance, commencing at the date of retirement, and is computed in the same manner as a normal retirement allowance on the basis of compensation and service to the time of early retirement, but reduced by $\frac{1}{2}$ of 1% for each month of retirement prior to normal retirement date.

Schedule C – Summary of Main Provisions of the Fund as Interpreted for Valuation Purposes (continued)

Disability Retirement Allowance

Condition for Allowance

Any member who has completed 4 years of service in case of disablement due to an occupational accident or sickness, or who has completed 6 years of service in case of disablement due to any other cause, and who has become totally and permanently incapacitated, mentally or physically, for the further performance of duty may be retired.

Amount of Allowance

Upon disability retirement, a member receives an allowance commencing immediately, which is computed as a normal retirement allowance on the basis of the compensation and service to the time of disability retirement and is not less than 15% of the member's 3-year average annual compensation.

Vested Retirement Allowance

Condition for Allowance

Any member who has completed 10 years of service and who is not eligible for a retirement allowance is eligible for a vested retirement allowance, in lieu of a refund of his contributions with interest, in the event his employment terminates for reasons other than voluntary quit or discharge for cause.

Amount of Allowance

The vested retirement allowance is a deferred allowance commencing on the member's normal retirement date and equal to a percentage, not exceeding 100 percent, of the amount computed as a normal retirement allowance on the basis of the compensation and service to the time of termination; the applicable percentage is 5 percent multiplied by the number of years of creditable service, not in excess of 20, at the time of termination.

Survivor Benefit

Condition for Benefit

Upon the death of a member who has completed 10 years of service and who is survived by a spouse and/or dependent children designated to receive the deceased member's contributions with interest, a benefit may be elected by such survivor in lieu of the payment of the contributions with interest.

Amount of Benefit

If the deceased member had completed at least 10 but fewer than 23 years of service, the survivor's benefit, payable for life, is equal to the amount which would have become payable if the member had retired as of the date of his death and elected a 50% joint and survivor option in effect as of the date of death with the survivor as the designated person under the option. There is no reduction for early commencement.

If the deceased member had completed at least 23 years of service, the survivor's benefit, payable for life, is equal to the amount which would have become payable if the member had retired as of the date of his death and elected a 100% joint and survivor option in effect as of the date of death with the survivor as the designated person under the option. There is no reduction for early commencement.

Accidental Death Benefit

Condition for Benefit

Upon the death of a member in service whose death results solely from an injury or injuries sustained in the performance of duty, and who is survived by a spouse designated to receive the deceased member's contribution with interest, an allowance shall be payable to said spouse.

Schedule C – Summary of Main Provisions of the Fund as Interpreted for Valuation Purposes (continued)

Amount of Benefit

The accidental death benefit, payable for life, is equal to the amount which would have become payable to the member if the member had retired as of the date of his death on a disability retirement allowance. If there should be insufficient creditable service, the surviving spouse receives the minimum allowance available under the disability retirement provision.

Return of Contributions

On Account of Termination of Service

In the event of a member's termination of employment for any reason other than death or retirement, he is paid the amount of his contributions, with interest.

On Account of Death Prior to Retirement

Upon the death of a member or retired member before his retirement allowance has become effective, the amount of his contributions, with interest, is paid to his beneficiary or estate, unless a survivor benefit is payable.

On Account of Death after Retirement

Upon the death of a retired member, or the survivor of a retired member and his designated beneficiary under an optional benefit, any excess of his contributions at retirement, with interest, over the sum of all retirement allowance payments made is paid to the member's beneficiary or to the survivor's estate.

Our valuation does not include return of contributions on account of death after retirement for current retirees due to negligible impact on the Fund's liabilities.

Optional Benefits in Lieu of Regular Benefits

At retirement, or on his normal retirement date if prior thereto, any member may elect to convert his allowance into an optional benefit of equivalent actuarial value permitted by the Pension Agreement.

Reinstatement of Creditable Service

If a member's service is interrupted by reason of resignation or dismissal, he has the opportunity upon the completion of 3 years of service after he has been rehired to repay to the Fund all amounts he has withdrawn together with an amount equal to their reasonable earnings. Upon such repayment, the member is to be credited with service for the periods before and after the interruption as though they had been a single period of service.

4 - Contributions

Contributions required to provide benefits and meet administrative expenses are made jointly by the Authority and members. The member contribution rate was increased from 5.1489% to 5.4989% effective August 11, 2012, to 5.5589% effective July 1, 2013, and to 5.7989% effective July 1, 2014. Member contributions are "picked up" by the Authority pursuant to Section 414(h)(2) of the Internal Revenue Code.

Schedule D – Tables of Employee Data

Schedule D – Tables of Employee Data (continued)

Table 1 – The Number and Annual Compensation of Active Members Distributed by Fifth Age and Service as of December 31, 2014

Attained Age	Completed 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		40 & up		Total	
	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary
Under 25	38	2,179,790	1	54,184	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	2,233,974
25 to 29	244	14,061,663	93	6,750,127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	337	20,811,790
30 to 34	210	12,623,398	209	15,075,914	63	4,612,434	1	76,336	0	0	0	0	0	0	0	0	0	0	483	32,388,082
35 to 39	181	11,385,540	225	16,241,670	135	9,896,944	38	2,823,870	0	0	0	0	0	0	0	0	0	0	579	40,348,025
40 to 44	192	12,205,990	219	15,994,193	152	11,299,728	113	8,163,782	55	4,241,761	0	0	0	0	0	0	0	0	731	51,905,454
45 to 49	223	14,750,074	254	19,112,234	212	15,807,113	133	9,702,056	133	9,802,608	57	4,312,893	1	77,750	0	0	0	0	1013	73,564,728
50 to 54	196	13,427,635	270	20,522,337	234	17,843,763	132	9,731,944	162	12,516,368	130	9,972,448	9	667,534	0	0	0	0	1133	84,682,030
55 to 59	116	8,509,930	161	11,902,634	168	12,669,425	98	7,270,385	144	10,980,589	118	8,716,635	39	2,943,815	1	76,211	0	0	845	63,069,625
60 to 64	48	3,382,265	87	6,615,968	105	7,752,906	69	5,335,601	85	6,821,995	62	4,708,039	19	1,443,029	5	376,126	2	137,860	482	36,573,789
65 to 69	21	1,812,608	24	1,934,286	25	1,821,295	12	947,476	22	1,832,457	13	1,052,271	6	450,424	3	249,621	0	0	126	10,100,437
70 & up	2	128,482	5	385,533	8	631,656	2	140,899	6	456,069	3	226,221	1	67,767	0	0	3	242,447	30	2,279,073
Total	1,471	94,467,376	1,548	114,589,081	1,102	82,335,263	598	44,192,348	607	46,651,847	383	28,988,508	75	5,650,321	9	701,958	5	380,306	5,798	417,957,007

Schedule D – Tables of Employee Data (continued)

Table 2 – The Number and Annual Retirement Allowances Distributed by Age as of December 31, 2014

Age	Service Retirements		Disabled Members		Beneficiaries	
	Number	Amount	Number	Amount	Number	Amount
<50	107	4,553,635	48	796,828	31	378,668
50	35	1,472,813	8	109,649	6	52,518
51	52	2,256,258	9	162,453	8	129,161
52	49	2,141,958	11	217,053	9	146,605
53	39	1,580,663	10	172,749	6	75,770
54	76	3,213,342	18	352,133	8	164,294
55	72	2,906,968	24	340,049	8	115,335
56	95	4,036,044	26	521,932	11	115,827
57	76	3,154,600	27	557,798	6	115,578
58	102	4,199,869	8	115,227	13	152,238
59	104	4,262,358	25	443,630	24	340,584
60	111	4,642,891	32	585,308	8	116,324
61	116	4,617,735	27	524,281	13	180,284
62	151	6,238,253	25	417,604	20	384,481
63	132	5,184,021	16	316,809	19	295,613
64	156	6,067,477	35	626,264	20	419,922
65	176	6,867,161	35	661,357	19	330,607
66	209	7,797,243	27	533,826	26	501,992
67	232	8,086,539	31	617,109	27	510,867
68	196	6,780,014	21	363,402	33	567,137
69	188	6,286,158	21	453,442	30	543,477
70	217	7,183,586	24	409,064	31	575,693
71	200	6,478,873	30	373,130	40	764,027
72	188	6,009,116	19	326,495	40	692,706
73	159	4,808,668	16	233,817	25	302,602
74	137	4,057,903	17	298,776	40	642,352
75	146	4,474,212	9	107,325	32	533,463
76	117	3,400,023	12	199,880	35	558,004
77	117	3,185,910	7	106,727	33	577,130
78	97	2,770,188	7	66,103	47	782,805
79	90	2,464,242	7	98,325	31	499,040
80	75	1,958,101	4	46,399	28	445,840
81	75	1,964,230	6	88,074	28	393,003
82	80	1,942,529	4	33,127	32	477,853
83	52	1,311,111	0	0	36	517,745
84	53	1,275,426	2	23,843	33	419,422
85	47	1,153,797	1	3,375	46	655,788
>85	245	5,417,526	7	63,279	280	3,784,263
Total	4,569	156,201,443	656	11,366,641	1,182	18,259,016
No Option	2,923	100,234,123	530	9,408,673	1,182	18,259,016
Survivor Option	36	1,488,316	10	159,475	0	0
Pop-Up Option	1,610	54,479,003	116	1,798,492	0	0
Total	4,569	156,201,443	656	11,366,641	1,182	18,259,016