

Vermont Municipal Employees' Retirement System

Actuarial Valuation Report

Plan Year

July 1, 2016 – June 30, 2017

October 2016





David L. Driscoll Principal, Retirement

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

david.driscoll@xerox.com tel 617.275.8028 fax 201.633.5168

Board of Trustees Vermont Municipal Employees' Retirement System Montpelier, Vermont 05609

Dear Board Members:

October 27, 2016

Section 5062, of Title 24, Chapter 125, Vermont Statutes Annotated, relating to the Vermont Municipal Employees' Retirement System, provides in part that the actuary shall make annual valuations of the System.

The actuarial valuation of the System, prepared as of July 1, 2016, has now been completed and the results are presented in this report, together with our recommendations with regard to contributions.

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

Where presented, references to "funded ratio" and "unfunded accrued liability" typically are measured on an actuarial value of assets basis. It should be noted that the same measurements using market value of assets would result in different funded ratios and unfunded accrued liabilities. Moreover, the funded ratio presented is appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the plan if the plan were to settle (i.e. purchase annuities) for a portion or all of its liabilities.

The purpose of the valuation and this report is to measure funding progress in relation to the actuarial cost method and to determine the adequacy of contributions to be made under current funding policy. Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. Buck will not accept any liability for any statement made about the report without prior review by Buck.

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 future results is beyond the scope of this valuation.

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 herein. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and I am available to answer questions concerning it.

Respectfully submitted,

David I. Dringel

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



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Section I – Summary of Principal Results

For convenience of reference, the principal results of the July 1, 2016, valuation are summarized below:

| Item | Group A | Group B | Group C | Group D | Total |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|
| Active members | | | | | |
| Vested | 1,541 | 1,942 | 479 | 111 | 4,073 |
| Not vested | <u>1,092</u> | 1,425 | <u>330</u> | <u>46</u> | 2,893 |
| Total | 2,633 | 3,367 | 809 | 157 | 6,966 |
| Compensation in FY 2016 | \$73,849,749 | \$126,193,684 | \$46,186,006 | \$10,500,616 | \$256,730,055 |
| Average age | 49.65 years | 48.85 years | 45.13 years | 40.97 years | 48.54 years |
| Average service | 8.88 years | 9.08 years | 8.62 years | 9.39 years | 8.96 years |
| Average FY 2016 | | | | | |
| compensation | \$ 28,048 | \$ 37,480 | \$ 57,090 | \$ 66,883 | \$ 36,855 |
| Retired members and beneficiaries | | | | | |
| Number | 1,100 | 1,294 | 309 | 31 | 2,734 |
| Annual benefits | \$ 5,314,568 | \$ 11,768,433 | \$ 5,471,394 | \$ 955,075 | \$ 23,509,470 |
| Terminated vested members | 457 | 325 | 23 | 5 | 811 |
| Inactive members | 1,085 | 920 | 82 | 12 | 2,099 |
| Adjusted assets for valuation | \$141,164,014 | \$293,704,206 | \$120,650,575 | \$ 26,092,440 | \$581,611,235 |
| Unfunded accrued liability (UAL) | \$ 30,029,068 | \$ 78,822,924 | \$ 38,431,031 | \$ 16,065,903 | \$163,348,926 |
| Employer normal contribution rate | 0.09% | 0.93% | 1.90% | 1.06% | 0.88% |
| Current funding policy rate | 4.000% | 5.500% | 7.187% | 9.85% | 5.45% |

Comments on the results of the valuation are given in Section IV and further discussion of the contribution levels is presented in Section V.

Schedule B outlines the full set of actuarial assumptions and methods employed in the current valuation. There have been changes in the assumptions since the last valuation.

Schedule C outlines the benefit provisions that were taken into account in the valuation. There have been changes in benefit provisions since last valuation.



Section II – Member Data

Member data were furnished by the Retirement Division of the State Treasurer's Office. Buck did not audit the data, although they were reviewed for reasonableness and consistency with prior data. The results of the valuation are dependent on the accuracy of the data.

In this valuation, 74 members who were terminated on June 30, 2016, and retired on July 1, 2016, are included as members receiving benefits. Members who have terminated after completing five years of service and have not withdrawn from the Fund within up to three years of their termination are included as inactive participants. Such participants are automatically placed in terminated vested status if they do not withdraw their member contributions within three years of termination.

Schedule D presents tables that summarize member data. Tables 1 through 5 summarize active member data by age and service. Tables 6 through 11 summarize service pensioners, disability pensioners and beneficiaries by age.

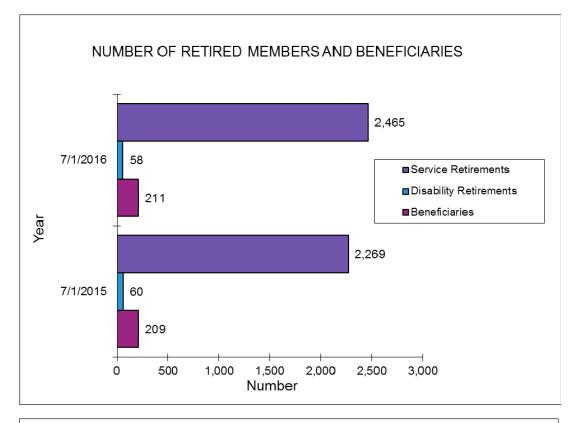
The following tables show a summary of membership data for retirees and beneficiaries:

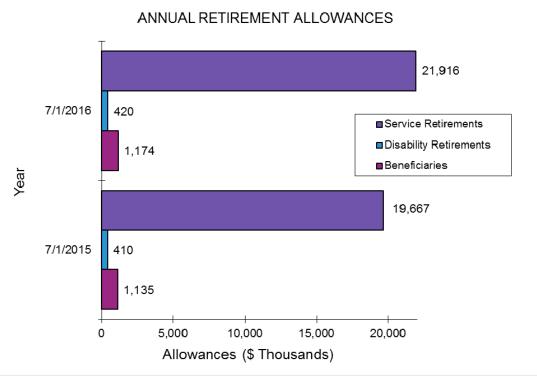
Number and Annual Allowances of Retired Members and Beneficiaries

| Group | Number | Ann | ual Allowances |
|-----------------------------------|--------|-----------|----------------|
| Service Retirements | 2,465 | \$ | 21,916,377 |
| Disability Retirements | 58 | \$ | 419,575 |
| Beneficiaries of Deceased Members | 211 | <u>\$</u> | 1,173,518 |
| Total | 2,734 | \$ | 23,509,470 |



Section II – Member Data (continued)







Section III – Assets

The asset values and cash flow amounts shown below were taken from reports supplied by the Office of the State Treasurer. The information contained in the reports has not yet been audited but is believed to be sufficiently accurate for purposes of this valuation.

For actuarial purposes, the assets are valued using a method that reflects the market value of assets through recognition of any difference in return on assets from its expected level over 5 years, provided the adjusted asset value is within 20% of the market value.

| Development of the valuation assets | | | | |
|--|---------------------|---------------------|--|--|
| Market value as of July 1, 2016 | \$ 547,015,114 (A) | | | |
| Adjustment to recognize asset gains (losses) over 5 years: | | | | |
| Year Ending Asset gain (loss) | x Adjustment factor | = Adjustment | | |
| 6/30/2016 \$ (35,999,708) | 0.80 | \$ (28,799,766) | | |
| 6/30/2015 (35,883,134) | 0.60 | (21,529,881) | | |
| 6/30/2014 35,178,435 | 0.40 | 14,071,374 | | |
| 6/30/2013 8,310,757 | 0.20 | 1,662,151 | | |
| Total | | \$ (34,596,121) (B) | | |
| Actuarial value of assets as of, July 1, 2016 (A) – (B) | | \$ 581,611,235 | | |
| Asset gain during fiscal year ending June 30, 2016: | | | | |
| Actual return on market value and cash flow | | | | |
| Interest and dividends | | \$ 518,885 | | |
| Realized and unrealized gains | | 7,791,581 | | |
| Investment expenses | | <u>(1,533,533)</u> | | |
| Total | | \$ 6,776,933 (C) | | |
| Expected 7.95% return on market value and cash flow | | \$ 42,776,641 (D) | | |
| Asset gain (loss) (D) - (C) | | \$ 35,999,708 | | |
| The excepts for valuation numbers are 100.200/ of market value | | | | |

The assets for valuation purposes are 106.32% of market value.

The estimated rate of return for the year ending June 30, 2016 is 6.14% based on the valuation assets.



Section III – Assets (continued)

The following table presents an allocation of total valuation assets to Groups A, B, C and D:

| Item | Group A | Group B | Group C | Group D | Total |
|--|---------------|---------------|---------------|---------------|---------------|
| Valuation assets as of July 1, 2015 | \$134,187,140 | \$275,335,889 | \$110,903,208 | \$ 23,341,919 | \$543,768,156 |
| Contributions | 5,260,245 | 14,489,695 | 8,348,549 | 2,287,430 | 30,385,919 |
| Income | 8,604,901 | 17,758,772 | 7,214,071 | 1,541,200 | 35,118,944 |
| Benefit payments | (5,820,573) | (12,455,820) | (5,636,460) | (1,007,355) | (24,920,208) |
| Expenses | (598,259) | (1,227,557) | (494,450) | (104,068) | (2,424,334) |
| Transfer | (78,287) | (160,635) | (64,702) | (13,618) | (317,242) |
| Surplus reallocation for transferring participants | (391,153) | (36,138) | 380,359 | 46,932 | 0 |
| Valuation assets as of July 1, 2016 | \$141,164,014 | \$293,704,206 | \$120,650,575 | \$ 26,092,440 | \$581,611,235 |

The amounts shown above for reallocation of surplus for participants transferring among groups were derived by estimation of the contributions made on behalf of these members in their prior groups and accumulation of these amounts with interest at the historical rates of return calculated for the System.



Section IV – Comments on Valuation

Schedule A of the report contains a valuation balance sheet, which shows total present and prospective assets and liabilities as of July 1, 2016.

The adjusted assets of the System amount to \$581,611,235.

The total present value of prospective allowances to be paid to current retired members, beneficiaries and terminated vested members amounts to \$280,817,740.

The present value of prospective benefits accrued by current active and inactive members through June 30, 2016, amounts to \$573,913,988, bringing total liabilities for future benefits to \$854,731,728. After subtracting assets of \$581,611,235, the amount to be provided through prospective contributions is \$273,120,493. Prospective member contributions have a value of \$94,436,680, which leaves \$178,683,813 to be met by employers.

The employers' contributions consist of a normal contribution and an accrued liability contribution. Future normal contributions represent the contributions needed to provide benefits for the active member; the rates upon which these are based are recalculated upon a change in benefit provisions or the actuarial assumptions used in the valuation. The accrued liability contribution represents the balance of contributions necessary to fund the System.

The value of future employer normal contributions as of July 1, 2016, is \$15,334,890.

Subtracting this from the total amount to be paid by employers leaves \$163,348,923 as the actuarial shortfall.

The expected unfunded actuarial accrued liability as of June 30, 2016, may be compared to the actual actuarial accrued liability to determine the gain or loss during the year. The following table presents a summary of the approximate effects of major experience factors affecting the system's unfunded actuarial accrued liability since June 30, 2015:

| 1. | 1. Unfunded liability, July 1, 2015 \$ 155,525 | | | |
|-------------------------------------|--|----|--------------|--|
| 2. | Normal Cost | | 25,788,209 | |
| 3. | Contributions | | (30,814,124) | |
| 4. | Interest on 1, 2 and 3 | | 13,212,971 | |
| 5. | Changes in Actuarial Assumptions | | 0 | |
| 6. | Changes in Plan Provisions (contrib. rates) | | 0 | |
| 7. | Expected Unfunded Liability, July 1, 2016 | | 163,712,180 | |
| 8. | Accrued Liability, July 1, 2016 | | 744,960,158 | |
| 9. | Actuarial Value of Assets, July 1, 2016 | | 581,611,235 | |
| 10. Actual Unfunded Liability, 8 9. | | | 163,348,923 | |
| 11. | Total gain/(loss), 7 10. | \$ | 363,257 | |



Section IV – Comments on Valuation (continued)

Sources of Gain/(Loss)

| Investment experience | \$ (8,296,599) |
|--|-------------------|
| Expenses (investments) | (1,593,325) |
| Expenses (other than investments) | (925,533) |
| Salary experience | 5,207,459 |
| COLA experience | 3,867,275 |
| New members and rehires | (1,112,810) |
| Mortality among retirees, beneficiaries and terminated vested participants | (645,641) |
| Mortality among active participants | 363,066 |
| Retirement experience | (3,030,113) |
| Termination experience | (1,346,626) |
| Disability experience | (441,923) |
| Other (data corrections, purchased service, etc.) | <u>8,318,027</u> |
| Total | \$ 363,257 |



Section V – Contributions Payable under the System

Employer contributions consist of a normal contribution and an accrued liability contribution. The normal contribution is the expected cost of benefits earned during the year following the valuation date. The accrued liability contribution represents a charge that reflects the amortization of the assets in shortfall of the accrued liability through June 30, 2038.

| | Item | Group A | Group B | Group C | Group D | Total |
|----|---|---------|---------|---------|---------|--------|
| 1. | Normal contributions | | | | | |
| | Employee | 2.50% | 4.875% | 10.00% | 11.35% | 5.38% |
| | Employer | 0.09% | 0.93% | 1.90% | 1.06% | 0.87% |
| | Total | 2.59% | 5.805% | 11.90% | 12.41% | 6.25% |
| 2. | Amortization of adjusted unfunded accrued liability through 6/30/2038 | 2.41% | 3.70% | 4.97% | 9.06% | 3.78% |
| 3. | Net employer contribution rates, July 1, 2016 | | | | | |
| | Amortization through 6/30/2038 | 2.500% | 4.631% | 6.830% | 10.125% | 4.638% |
| | Current funding policy rates | 4.000% | 5.500% | 7.250% | 9.850% | 5.561% |

The current funding policy rates payable by the employers and the calculated rates reflecting amortization of the unfunded actuarial accrued liability are shown below:

| | Funding Policy Rate | Rate with Full Amortization |
|---------|---------------------|--------------------------------|
| Group A | 4.000% | 2.500% |
| Group B | 5.500% | 4.631% |
| Group C | 7.250% | 6.830% |
| Group D | 9.850% | 10.125% |

We recommend that the Board set future contribution rates within the ranges shown on the preceding page. Since the funding policy rate for each group, other than Group D, exceeds the sum of its calculated employer normal rate (shown in item 1 above) and the contribution needed to amortize its unfunded liability, payment of those rates would be sufficient to meet the individual funding requirements of those groups, assuming no future experience gains or losses. Payment of the rates with full amortization, shown above, would result in a gradual reduction of the unfunded liability through 2038, at which point the full normal cost rate would be payable. Although the current employer contribution rates in the aggregate are sufficient to meet the funding needs of the System, the inadequacy of the current employer contribution rate for Group D relative to its own funding requirements may lead the Board to consider increasing the contribution rate for Group D.

The difference between the current funding policy rates and the net employer contribution rates is 0.923% of payroll in the aggregate. Annualized payroll in fiscal year 2016 for active participants amounted to \$264,803,634, and application of the salary scale of 5% to this figure produces projected fiscal year 2017 compensation for active participants of \$278,043,816. The product of 0.923% and the projected 2017 compensation for active participants, \$2,566,344, exceeds the non-investment expenses incurred by the System in fiscal year 2016, \$890,801, by an ample margin.



Section VI - Experience

Records are maintained whereby the actual experience of the System may be compared with the expected experience based on the tables adopted by the Board of Trustees. This experience will be reviewed in periodic experience studies, and any change in assumptions suggested by the cumulative experience of the System will be brought to the Board's attention in reports on the results of these studies.

Section VII - Accounting Information

The Governmental Accounting Standards Board (GASB) Statement No. 25 (GASB 25) is amended and replaced with the Governmental Accounting Standards Board (GASB) Statement No. 67 (GASB 67) effective for the fiscal year ending June 30, 2014, and a separate actuarial valuation report presenting the amounts required for disclosure under GASB 67 was prepared as of June 30, 2015.

The System has been determined to be a cost-sharing multiple-employer plan, as the term is defined in GASB Statement No. 27. Participating employers should account for their participation in the System in accordance with Paragraph 19 of the Statement.



Schedule A: Balance Sheet Showing Assets and Liabilities

| Assets | | | | |
|---|------|-------------|-----------|-------------|
| Adjusted assets of the system | | | \$ | 581,611,235 |
| Present value of prospective contributions | | | | |
| Members | \$ | 94,436,680 | | |
| Employees | | | | |
| Accrued liability contributions | | 163,348,923 | | |
| Normal contributions | | 15,334,890 | | |
| Total prospective contributions | | | \$ | 273,120,493 |
| Total assets | | | <u>\$</u> | 854,731,728 |
| Liabilities | | | | |
| Actuarial present value of benefits payable on acc of present retired members, terminated vested | ount | | | |
| members and beneficiaries | | | \$ | 280,817,740 |
| Actuarial present value of benefits expected to become payable on account of active and inactive | | | | |
| members | | | <u>\$</u> | 573,913,988 |
| Total liabilities | | | <u>\$</u> | 854,731,728 |



Schedule B: Outline of Actuarial Assumptions and Methods

Please note: The actuarial assumptions used in this valuation were reviewed and either affirmed for continued use or reset on the basis of an experience study covering the period from July 1, 2010 through June 30, 2014. The findings and recommendations of the experience study are summarized in a separate report.

Interest Rate

7.95% per annum

Salary Increases

5% per year.

Deaths

Current Year:

Groups A, B, and C

RP-2000 Tables for Employees and Healthy Annuitants projected with Scale BB to 2026 with a 60% Blue collar and 40% White collar adjustment.

Group D

RP-2000 Tables for Employees and Healthy Annuitants projected with Scale BB to 2026 with a 100% Blue Collar adjustment.

The post-retirement mortality assumption was chosen to recognize improved longevity experience as well as that expected prior to the next review of assumptions.

Prior Year:

Groups A, B, and C

RP-2000 Tables for Employees and Healthy Annuitants projected with Scale BB to 2025 with a 60% Blue collar and 40% White collar adjustment.

Group D

RP-2000 Tables for Employees and Healthy Annuitants projected with Scale BB to 2025 with a 100% Blue Collar adjustment.

The post-retirement mortality assumption was chosen to recognize improved longevity experienced as well as that expected prior to the next review of assumptions.

Future Expenses

An expense adjustment based on actual expenses for the previous year is reflected in the development of recommended employer contribution levels.

Actuarial Cost Method

Projected benefit cost method. The unfunded accrued liability is amortized in installments increasing by 5% per year.

Spouse's Age

Husbands are assumed to be three years older than their wives.



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

Percent Married

85% of male members and 50% of female members are assumed to be married.

Cost-of-Living Adjustments to Benefits of Terminated Vested and Retired Participants

Assumed to occur at the rate of 1.5% per annum for Group A members and 1.8% per annum for members of Groups B, C and D.

Asset Valuation Method

A smoothing method is used, under which the value of assets for actuarial purposes equals market value less a fiveyear 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%.

Inactive Members

A liability of 200% of accumulated contributions with interest is maintained for inactive participants.

Inflation

The separately stated assumptions for investment return, salary increases and cost of living adjustments are consistent with an expected annual inflation rate of 3.00% to 3.25% per year.

Withdrawal

| Service | Male | Female |
|---------|--------|--------|
| 0 | 22.5% | 30.0% |
| 1 | 16.2% | 22.0% |
| 2 | 13.5% | 18.0% |
| 3 | 12.15% | 15.0% |
| 4 | 10.8% | 12.0% |
| 5 | 9.0% | 10.0% |
| 6 | 8.1% | 9.0% |
| 7 | 7.2% | 8.% |
| 8 | 7.2% | 6.0% |
| 9 | 6.3% | 6.0% |
| 10 | 3.6% | 5.0% |



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

Disability

Group A

| Age | | Males | | Females | | | | |
|-----|----------------------|-----------------------|----------------------|-------------------------|-----------------------|----------------------|--|--|
| | 0-4 years of service | 5-34 years of service | 35+ years of service | 0-4 years of service | 5-34 years of service | 35+ years of service | | |
| 25 | 0.010% | 0.010% | 0.010% | 0.0050% | 0.0050% | 0.0050% | | |
| 30 | 0.013% | 0.013% | 0.013% | 0.0065% | 0.0065% | 0.0065% | | |
| 35 | 0.017% | 0.017% | 0.017% | 0.0085% | 0.0085% | 0.0085% | | |
| 40 | 0.030% | 0.030% | 0.030% | 0.0150% | 0.0150% | 0.0150% | | |
| 45 | 0.050% | 0.050% | 0.050% | 0.0250% | 0.0250% | 0.0250% | | |
| 50 | 0.090% | 0.090% | 0.090% | 0.0450% | 0.0450% | 0.0450% | | |
| 55 | 0.180% | 0.180% | 0.000% | 0.0900% | 0.0900% | 0.0000% | | |
| 60 | 0.315% | 0.315% | 0.000% | 0.1575% | 0.1575% | 0.0000% | | |
| 65 | 0.315% | 0.000% | 0.000% | 0.1575% | 0.0000% | 0.0000% | | |

Groups B, C, and D

| Age | Mal | es | Females | | | |
|-----|----------------------|---------------------|----------------------|---------------------|--|--|
| | 0-4 years of service | 5+ years of service | 0-4 years of service | 5+ years of service | | |
| 25 | 0.010% | 0.010% | 0.0050% | 0.0050% | | |
| 30 | 0.013% | 0.013% | 0.0065% | 0.0065% | | |
| 35 | 0.017% | 0.017% | 0.0085% | 0.0085% | | |
| 40 | 0.030% | 0.030% | 0.0150% | 0.0150% | | |
| 45 | 0.050% | 0.050% | 0.0250% | 0.0250% | | |
| 50 | 0.090% | 0.090% | 0.0450% | 0.0450% | | |
| 55 | 0.180% | 0.000% | 0.0900% | 0.0000% | | |
| 60 | 0.315% | 0.000% | 0.1575% | 0.0000% | | |
| 65 | 0.315% | 0.000% | 0.1575% | 0.0000% | | |



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

Retirement

| Age | Gro | up A | Gr | oup B | Group | C | Group D | | |
|-----|-------|---------|-------|---------|-------|---------|--------------------------|----------------------|--|
| | Males | Females | Males | Females | Males | Females | 0-20 years of service | 20+ years of service | |
| 50 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 40.0% | |
| 51 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 35.0 | |
| 52 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 30.0 | |
| 53 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.0 | |
| 54 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.0 | |
| 55 | 3.0 | 4.9 | 4.9 | 4.9 | 30.0 | 0.0 | 15.0 | 15.0 | |
| 56 | 7.5 | 7.7 | 4.9 | 4.9 | 10.0 | 5.0 | 10.0 | 10.0 | |
| 57 | 5.0 | 7.0 | 4.9 | 8.4 | 5.0 | 5.0 | 10.0 | 10.0 | |
| 58 | 5.0 | 4.9 | 4.9 | 8.4 | 20.0 | 25.0 | 10.0 | 10.0 | |
| 59 | 7.2 | 7.0 | 4.9 | 4.9 | 20.0 | 5.0 | 10.0 | 10.0 | |
| 60 | 7.2 | 4.9 | 4.9 | 8.4 | 10.0 | 5.0 | 15.0 | 15.0 | |
| 61 | 12.0 | 10.5 | 14.0 | 10.5 | 10.0 | 5.0 | 10.0 | 10.0 | |
| 62 | 28.0 | 10.5 | 36.0 | 17.5 | 40.0 | 5.0 | 25.0 | 25.0 | |
| 63 | 21.0 | 22.5 | 24.0 | 14.0 | 10.0 | 20.0 | 25.0 | 25.0 | |
| 64 | 21.0 | 25.0 | 18.0 | 14.0 | 20.0 | 20.0 | 25.0 | 25.0 | |
| 65 | 56.0 | 25.0 | 48.0 | 28.0 | 35.0 | 35.0 | 100.0 | 100.0 | |
| 66 | 15.0 | 20.0 | 30.0 | 18.0 | 35.0 | 35.0 | 100.0 | 100.0 | |
| 67 | 20.0 | 30.0 | 30.0 | 14.0 | 35.0 | 35.0 | 100.0 | 100.0 | |
| 68 | 20.0 | 20.0 | 30.0 | 14.0 | 35.0 | 35.0 | 100.0 | 100.0 | |
| 69 | 20.0 | 20.0 | 30.0 | 14.0 | 35.0 | 35.0 | 100.0 | 100.0 | |
| 70 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | |

Rates shown are for participants with 5 or more years of service (unless otherwise indicated). For participants with less than five years of service, 0% is assumed.



Schedule C: Summary of Principal Plan Provisions

Effective Date

July 1, 1975

Creditable Service

Service as a member plus purchased service.

Membership

Full time employees of participating municipalities. Municipality elects coverage under Groups A, B, C or D provisions.

Average Final Compensation (AFC)

| Group A | average annual compensation during highest 5 consecutive years. |
|----------------|---|
| Groups B and C | average annual compensation during highest 3 consecutive years. |
| Group D | average annual compensation during highest 2 consecutive years. |

Service Retirement Allowance

Eligibility

| Group A | The earlier of age 65 with 5 years of service or age 55 with 35 years of service. |
|----------------|---|
| Group B | The earlier of age 62 with 5 years of service or age 55 with 30 years of service. |
| Groups C and D | Age 55 with 5 years of service. |
| · | |

Amount

| Group A | 1.4% of AFC times service. |
|---------|---|
| Group B | 1.7% of AFC times service as Group B member plus percentage earned as Group A member times AFC. |
| Group C | 2.5% of AFC times service as a Group C member plus percentage earned as a Group A or B member times AFC. |
| Group D | 2.5% of AFC times service as a Group D member plus percentage earned as a Group A, B or C member times AFC. |

Maximum benefit is 60% of AFC for Groups A and B and 50% of AFC for Groups C and D. The above amounts include the portion of the allowance provided by member contributions.

Early Retirement Allowance

Eligibility

Age 55 with 5 years of service for Groups A and B; age 50 with 20 years of service for Group D.

Amount

Normal allowance based on service and AFC at early retirement, reduced by 6% for each year commencement precedes Normal Retirement Age for Group A and B members, and payable without reduction to Group D members

Vested Retirement Allowance

Eligibility

5 years of service.



Schedule C: Summary of Principal Plan Provisions (continued)

Amount

Allowance beginning at normal retirement age based on AFC and service at termination. The AFC is to be adjusted annually by one-half of the percentage change in the Consumer Price Index, subject to the limits on "Post-Retirement Adjustments" described below.

Disability Retirement Allowance

Eligibility

5 years of service and disability as determined by Retirement Board.

Amount

Immediate allowance based on AFC and service to date of disability; children's benefit of 10% of AFC payable to up to three minor children (or children up to age 23 if enrolled in full-time studies) of a disabled Group D member.

Death Benefit

Eligibility

Death after 5 years of service.

Amount

For Groups A, B and C, reduced early retirement allowance under 100% survivor option commencing immediately or, if greater, survivor's benefit under disability annuity computed as of date of death. For Group D, 70% of the unreduced accrued benefit plus children's benefit.

Optional Benefit and Death after Retirement

For Groups A, B and C, lifetime allowance or actuarially equivalent 50% or 100% joint and survivor allowance with refund of contribution guarantee. For Group D a lifetime allowance or 70% contingent annuitant option with no reduction.

Refund of Contribution

Upon termination, if the member so elects or if no other benefit is payable, the member's accumulated contributions are refunded.

Post-Retirement Adjustments

Allowances in payment for at least one year increased on each January 1 by one-half of the percentage increase in consumer price index but not more than 2% for Group A and 3% for Groups B, C and D.

Member Contributions

- Group A 2.5% effective July 1, 2000.
- Group B 4.88% effective July 1, 2016.
- Group C 10.00% effective January 1, 2016.
- Group D 11.35% effective July 1, 2016.

Retirement Stipend

\$25 per month payable at the option of the Board to retirees.



Schedule D: Summary Tables of Member Data

| | 0 - 4 | | 5 - 9 | | | 10 - 14 | | 15 - 19 | | 20 - 24 | |
|----------------|-------|------------|-------|------------|-------|------------|-----|------------|-----|------------|--|
| Age | No. | Salary | No. | Salary | No. | Salary | No. | Salary | No. | Salary | |
| <u><</u> 20 | 10 | 144,036 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 20-24 | 216 | 4,876,313 | 2 | 76,877 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 25-29 | 400 | 12,173,406 | 58 | 2,666,214 | 1 | 43,592 | 0 | 0 | 0 | 0 | |
| 30-34 | 361 | 11,377,213 | 121 | 5,396,464 | 36 | 1,793,095 | 0 | 0 | 0 | 0 | |
| 35-39 | 320 | 9,489,446 | 145 | 6,601,929 | 91 | 4,364,617 | 14 | 596,230 | 0 | 0 | |
| 40-44 | 328 | 9,752,027 | 180 | 7,542,669 | 105 | 5,275,225 | 59 | 2,964,861 | 8 | 414,810 | |
| 45-49 | 345 | 11,314,646 | 244 | 9,510,725 | 187 | 8,234,458 | 100 | 4,373,700 | 43 | 2,434,563 | |
| 50-54 | 338 | 10,878,694 | 267 | 9,866,581 | 206 | 8,319,129 | 154 | 5,698,437 | 57 | 2,627,356 | |
| 55-59 | 303 | 9,912,530 | 254 | 9,618,232 | 259 | 9,773,730 | 191 | 6,655,995 | 89 | 4,010,796 | |
| 60-64 | 186 | 5,711,936 | 166 | 6,204,182 | 173 | 6,592,998 | 162 | 5,951,535 | 83 | 3,311,029 | |
| 65-69 | 70 | 1,950,247 | 54 | 1,746,111 | 54 | 2,067,247 | 50 | 1,920,256 | 34 | 1,352,125 | |
| ≥70 | 16 | 436,825 | 20 | 601,507 | 19 | 692,537 | 10 | 284,712 | 12 | 330,088 | |
| Total | 2,893 | 88,017,319 | 1,511 | 59,831,491 | 1,131 | 47,156,628 | 740 | 28,445,726 | 326 | 14,480,767 | |

Table 1: Number and Annual Compensation of Active Members Distributed by Age and Service

| | 25 - 29 | | 30 - 34 | | 35 - 39 | | 40 & Up | | Total | |
|----------------|---------|------------|---------|-----------|---------|-----------|---------|---------|-------|-------------|
| Age | No. | Salary | No. | Salary | No. | Salary | No. | Salary | No. | Salary |
| <u><</u> 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 144,036 |
| 20-24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 218 | 4,953,190 |
| 25-29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 459 | 14,883,212 |
| 30-34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 518 | 18,566,772 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 570 | 21,052,222 |
| 40-44 | 1 | 49,417 | 0 | 0 | 0 | 0 | 0 | 0 | 681 | 25,999,009 |
| 45-49 | 22 | 1,121,943 | 0 | 0 | 0 | 0 | 0 | 0 | 941 | 36,990,035 |
| 50-54 | 43 | 2,256,912 | 17 | 1,068,349 | 2 | 105,027 | 0 | 0 | 1,084 | 40,820,485 |
| 55-59 | 59 | 2,944,208 | 20 | 1,130,271 | 24 | 1,501,653 | 1 | 64,815 | 1,200 | 45,612,230 |
| 60-64 | 76 | 3,415,107 | 20 | 1,142,431 | 14 | 862,963 | 7 | 388,404 | 887 | 33,580,585 |
| 65-69 | 27 | 1,123,368 | 8 | 367,350 | 2 | 117,687 | 3 | 219,557 | 302 | 10,863,948 |
| ≥70 | 13 | 564,792 | 1 | 29,589 | 1 | 53,560 | 4 | 270,721 | 96 | 3,264,331 |
| Total | 241 | 11,475,747 | 66 | 3,737,990 | 43 | 2,640,890 | 15 | 943,497 | 6,966 | 256,730,055 |



| Table 2: Number and Annual Compensation of Active Members Distributed by Age and Se | rvice |
|---|-------|
| Group A | |

| | 0 - 4 | | 5 - 9 | | 10 - 14 | | 15 - 19 | | 20 - 24 | |
|----------------|-------|------------|-------|------------|---------|------------|---------|-----------|---------|-----------|
| Age | No. | Salary | No. | Salary | No. | Salary | No. | Salary | No. | Salary |
| <u><</u> 20 | 4 | 52,965 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20-24 | 78 | 1,313,262 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25-29 | 130 | 2,699,680 | 14 | 411,736 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30-34 | 122 | 2,776,540 | 41 | 1,287,652 | 6 | 132,490 | 0 | 0 | 0 | 0 |
| 35-39 | 134 | 3,235,266 | 47 | 1,500,899 | 25 | 685,653 | 7 | 229,412 | 0 | 0 |
| 40-44 | 120 | 3,079,293 | 62 | 1,869,733 | 26 | 863,106 | 14 | 499,413 | 3 | 142,939 |
| 45-49 | 132 | 3,267,657 | 89 | 2,497,558 | 66 | 1,865,844 | 29 | 903,548 | 8 | 243,178 |
| 50-54 | 129 | 3,333,772 | 109 | 3,211,556 | 94 | 3,090,797 | 64 | 1,992,050 | 16 | 541,162 |
| 55-59 | 129 | 3,674,647 | 102 | 3,111,123 | 115 | 3,386,944 | 65 | 1,851,907 | 38 | 1,266,826 |
| 60-64 | 72 | 1,669,014 | 79 | 2,227,569 | 71 | 1,932,420 | 81 | 2,556,397 | 32 | 1,133,704 |
| 65-69 | 33 | 700,111 | 22 | 563,344 | 22 | 708,677 | 21 | 636,384 | 14 | 466,566 |
| ≥70 | 9 | 251,092 | 9 | 269,350 | 11 | 339,427 | 5 | 112,402 | 4 | 116,654 |
| Total | 1,092 | 26,053,299 | 574 | 16,950,520 | 436 | 13,005,358 | 286 | 8,781,513 | 115 | 3,911,029 |

| | 25 - 29 | | 30 - 34 | | ; | 35 - 39 | | 40 & Up | | Total | |
|----------------|---------|-----------|---------|-----------|-----|---------|-----|---------|-------|------------|--|
| Age | No. | Salary | No. | Salary | No. | Salary | No. | Salary | No. | Salary | |
| <u><</u> 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 52,965 | |
| 20-24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 1,313,262 | |
| 25-29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 144 | 3,111,416 | |
| 30-34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 169 | 4,196,682 | |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 213 | 5,651,230 | |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 225 | 6,454,484 | |
| 45-49 | 8 | 333,638 | 0 | 0 | 0 | 0 | 0 | 0 | 332 | 9,111,423 | |
| 50-54 | 11 | 439,304 | 7 | 337,691 | 1 | 43,854 | 0 | 0 | 431 | 12,990,186 | |
| 55-59 | 21 | 747,080 | 5 | 243,879 | 2 | 122,950 | 0 | 0 | 477 | 14,405,356 | |
| 60-64 | 35 | 1,188,655 | 8 | 331,730 | 3 | 179,700 | 4 | 268,419 | 385 | 11,487,608 | |
| 65-69 | 12 | 375,544 | 4 | 178,851 | 1 | 64,702 | 0 | 0 | 129 | 3,694,179 | |
| ≥70 | 6 | 184,337 | 0 | 0 | 1 | 53,560 | 1 | 54,136 | 46 | 1,380,958 | |
| Total | 93 | 3,268,558 | 24 | 1,092,151 | 8 | 464,766 | 5 | 322,555 | 2,633 | 73,849,749 | |



Table 3: Number and Annual Compensation of Active Members Distributed by Age and ServiceGroup B

| | 0 - 4 | | 5 - 9 | | 10 - 14 | | 15 - 19 | | 20 - 24 | |
|----------------|-------|------------|-------|------------|---------|------------|---------|------------|---------|-----------|
| Age | No. | Salary | No. | Salary | No. | Salary | No. | Salary | No. | Salary |
| <u><</u> 20 | 6 | 91,070 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20-24 | 111 | 2,507,274 | 2 | 76,877 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25-29 | 186 | 5,206,666 | 24 | 1,070,150 | 1 | 43,592 | 0 | 0 | 0 | 0 |
| 30-34 | 170 | 5,098,317 | 41 | 1,812,252 | 15 | 668,081 | 0 | 0 | 0 | 0 |
| 35-39 | 151 | 4,549,068 | 61 | 2,760,860 | 37 | 1,709,736 | 6 | 295,285 | 0 | 0 |
| 40-44 | 163 | 4,695,973 | 84 | 3,599,162 | 45 | 2,052,327 | 30 | 1,446,047 | 3 | 121,807 |
| 45-49 | 170 | 5,896,404 | 117 | 4,628,057 | 76 | 3,068,189 | 59 | 2,669,850 | 26 | 1,550,429 |
| 50-54 | 177 | 6,100,453 | 129 | 4,950,329 | 83 | 3,344,520 | 74 | 2,584,841 | 33 | 1,524,305 |
| 55-59 | 153 | 5,092,900 | 133 | 5,658,852 | 119 | 4,576,596 | 107 | 3,585,877 | 44 | 2,174,392 |
| 60-64 | 99 | 3,451,739 | 75 | 3,297,598 | 89 | 3,744,575 | 66 | 2,398,509 | 44 | 1,737,930 |
| 65-69 | 34 | 1,035,281 | 30 | 1,057,409 | 25 | 873,371 | 24 | 985,250 | 18 | 764,766 |
| ≥70 | 5 | 131,612 | 10 | 307,296 | 8 | 353,110 | 5 | 172,310 | 4 | 69,497 |
| Total | 1,425 | 43,856,757 | 706 | 29,218,842 | 498 | 20,434,097 | 371 | 14,137,969 | 172 | 7,943,126 |

| | : | 25 - 29 | 30 - 34 | | ; | 35 - 39 | 4 | 0 & Up | Total | |
|----------------|-----|-----------|---------|-----------|-----|-----------|-----|---------|-------|-------------|
| Age | No. | Salary | No. | Salary | No. | Salary | No. | Salary | No. | Salary |
| <u><</u> 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 91,070 |
| 20-24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 113 | 2,584,151 |
| 25-29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 211 | 6,320,408 |
| 30-34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 226 | 7,578,650 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 255 | 9,314,949 |
| 40-44 | 1 | 49,417 | 0 | 0 | 0 | 0 | 0 | 0 | 326 | 11,964,733 |
| 45-49 | 12 | 631,008 | 0 | 0 | 0 | 0 | 0 | 0 | 460 | 18,443,937 |
| 50-54 | 27 | 1,508,323 | 6 | 337,971 | 1 | 61,173 | 0 | 0 | 530 | 20,411,915 |
| 55-59 | 29 | 1,519,189 | 13 | 759,648 | 18 | 1,039,861 | 1 | 64,815 | 617 | 24,472,130 |
| 60-64 | 31 | 1,590,722 | 11 | 741,827 | 11 | 683,263 | 3 | 119,984 | 429 | 17,766,147 |
| 65-69 | 13 | 546,090 | 4 | 188,499 | 1 | 52,985 | 3 | 219,557 | 152 | 5,723,208 |
| ≥70 | 7 | 380,454 | 1 | 29,589 | 0 | 0 | 2 | 78,518 | 42 | 1,522,386 |
| Total | 120 | 6,225,203 | 35 | 2,057,534 | 31 | 1,837,282 | 9 | 482,874 | 3,367 | 126,193,684 |



Table 4: Number and Annual Compensation of Active Members Distributed by Age and ServiceGroup C

| | | 0 - 4 | | 5 - 9 | | 10 - 14 | 1 | 5 - 19 | | 20 - 24 |
|----------------|-----|------------|-----|------------|-----|------------|-----|-----------|-----|-----------|
| Age | No. | Salary | No. | Salary | No. | Salary | No. | Salary | No. | Salary |
| <u><</u> 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20-24 | 23 | 841,291 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25-29 | 71 | 3,608,372 | 18 | 1,058,246 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30-34 | 54 | 2,656,892 | 29 | 1,598,342 | 10 | 653,965 | 0 | 0 | 0 | 0 |
| 35-39 | 31 | 1,458,343 | 28 | 1,741,278 | 19 | 1,239,091 | 1 | 71,533 | 0 | 0 |
| 40-44 | 41 | 1,781,067 | 26 | 1,561,837 | 24 | 1,639,872 | 8 | 524,372 | 1 | 85,000 |
| 45-49 | 38 | 1,897,568 | 32 | 1,940,570 | 37 | 2,694,576 | 9 | 553,857 | 5 | 308,197 |
| 50-54 | 32 | 1,444,472 | 25 | 1,493,355 | 20 | 1,184,932 | 13 | 893,485 | 7 | 515,120 |
| 55-59 | 20 | 1,054,687 | 18 | 786,490 | 23 | 1,646,695 | 17 | 1,069,422 | 6 | 482,710 |
| 60-64 | 15 | 591,183 | 12 | 679,015 | 13 | 916,002 | 14 | 899,929 | 7 | 439,395 |
| 65-69 | 3 | 214,856 | 2 | 125,358 | 6 | 391,232 | 5 | 298,622 | 2 | 120,793 |
| ≥70 | 2 | 54,121 | 1 | 24,861 | 0 | 0 | 0 | 0 | 4 | 143,937 |
| Total | 330 | 15,602,852 | 191 | 11,009,352 | 152 | 10,366,365 | 67 | 4,311,220 | 32 | 2,095,152 |

| | : | 25 - 29 | : | 30 - 34 | ; | 35 - 39 | 4 | 0 & Up | | Total |
|----------------|-----|-----------|-----|---------|-----|---------|-----|---------|-----|------------|
| Age | No. | Salary | No. | Salary | No. | Salary | No. | Salary | No. | Salary |
| <u><</u> 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20-24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 841,291 |
| 25-29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 4,666,618 |
| 30-34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 93 | 4,909,199 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 79 | 4,510,245 |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 5,592,148 |
| 45-49 | 2 | 157,297 | 0 | 0 | 0 | 0 | 0 | 0 | 123 | 7,552,065 |
| 50-54 | 4 | 237,084 | 4 | 392,687 | 0 | 0 | 0 | 0 | 105 | 6,161,135 |
| 55-59 | 7 | 504,005 | 2 | 126,744 | 4 | 338,842 | 0 | 0 | 97 | 6,009,595 |
| 60-64 | 10 | 635,730 | 1 | 68,875 | 0 | 0 | 0 | 0 | 72 | 4,230,129 |
| 65-69 | 2 | 201,734 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 1,352,595 |
| ≥70 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 138,067 | 8 | 360,986 |
| Total | 25 | 1,735,850 | 7 | 588,306 | 4 | 338,842 | 1 | 138,067 | 809 | 46,186,006 |



Table 5: Number and Annual Compensation of Active Members Distributed by Age and ServiceGroup D

| | | 0 - 4 | | 5 - 9 | | 10 - 14 | 1 | 5 - 19 | 20 - 24 | |
|----------------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|---------|---------|
| Age | No. | Salary | No. | Salary | No. | Salary | No. | Salary | No. | Salary |
| <u><</u> 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20-24 | 4 | 214,486 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25-29 | 13 | 658,688 | 2 | 126,082 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30-34 | 15 | 845,463 | 10 | 698,218 | 5 | 338,559 | 0 | 0 | 0 | 0 |
| 35-39 | 4 | 246,770 | 9 | 598,892 | 10 | 730,136 | 0 | 0 | 0 | 0 |
| 40-44 | 4 | 195,694 | 8 | 511,938 | 10 | 719,920 | 7 | 495,029 | 1 | 65,064 |
| 45-49 | 5 | 253,019 | 6 | 444,539 | 8 | 605,848 | 3 | 246,444 | 4 | 332,759 |
| 50-54 | 0 | 0 | 4 | 211,342 | 9 | 698,880 | 3 | 228,060 | 1 | 46,768 |
| 55-59 | 1 | 90,297 | 1 | 61,767 | 2 | 163,494 | 2 | 148,790 | 1 | 86,868 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 96,700 | 0 | 0 |
| 65-69 | 0 | 0 | 0 | 0 | 1 | 93,967 | 0 | 0 | 0 | 0 |
| ≥70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 46 | 2,504,417 | 40 | 2,652,778 | 45 | 3,350,804 | 16 | 1,215,023 | 7 | 531,459 |

| | | 25 - 29 | : | 30 - 34 | ; | 35 - 39 | 4 | 0 & Up | Total | |
|----------------|-----|---------|-----|---------|-----|---------|-----|--------|-------|------------|
| Age | No. | Salary | No. | Salary | No. | Salary | No. | Salary | No. | Salary |
| <u><</u> 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20-24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 214,486 |
| 25-29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 784,770 |
| 30-34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 1,882,240 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 1,575,798 |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 1,987,645 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 1,882,609 |
| 50-54 | 1 | 72,201 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 1,257,251 |
| 55-59 | 2 | 173,934 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 725,150 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 96,700 |
| 65-69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 93,967 |
| ≥70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 3 | 246,135 | 0 | 0 | 0 | 0 | 0 | 0 | 157 | 10,500,616 |



Table 6: Summary of Retired Member and Beneficiary Data by Attained Age

| | Serv | vice Pensioners | Disab | ility Pensioners | В | eneficiaries |
|----------------|--------|------------------|--------|------------------|--------|------------------|
| Age | Number | Annual Allowance | Number | Annual Allowance | Number | Annual Allowance |
| <u><</u> 30 | 0 | 0 | 0 | 0 | 3 | 18,800 |
| 34 | - | - | - | - | 1 | 1,809 |
| 39 | - | - | - | - | 1 | 1,027 |
| 42 | - | - | - | - | 2 | 2,701 |
| 47 | - | - | 2 | 14,427 | 2 | 10,217 |
| 50 | - | - | 3 | 22,809 | 4 | 31,769 |
| 51 | - | - | 1 | 1,789 | - | - |
| 52 | 1 | 33,423 | 3 | 54,155 | 2 | 13,190 |
| 53 | - | - | 1 | 1,295 | 1 | 6,000 |
| 54 | 3 | 67,421 | - | - | 1 | 9,311 |
| 55 | 8 | 122,071 | 2 | 7,681 | 3 | 9,591 |
| 56 | 8 | 189,729 | 1 | 9,908 | 4 | 22,157 |
| 57 | 17 | 375,142 | 2 | 12,753 | 4 | 35,480 |
| 58 | 11 | 307,343 | 1 | 7,875 | 3 | 12,645 |
| 59 | 28 | 570,206 | 2 | 15,454 | 6 | 34,159 |
| 60 | 27 | 556,633 | 2 | 7,684 | 3 | 34,620 |
| 61 | 34 | 542,231 | - | - | 3 | 17,006 |
| 62 | 54 | 796,476 | 4 | 58,656 | 4 | 11,311 |
| 63 | 91 | 1,007,674 | 4 | 38,482 | 4 | 13,477 |
| 64 | 89 | 828,381 | 3 | 40,290 | 2 | 8,804 |
| 65 | 115 | 1,206,843 | 2 | 9,453 | 4 | 18,888 |
| 66 | 128 | 1,043,428 | 2 | 9,558 | 5 | 58,144 |
| 67 | 173 | 1,684,715 | 4 | 25,520 | 4 | 20,899 |
| 68 | 172 | 1,346,142 | - | - | 7 | 64,987 |
| 69 | 168 | 1,317,199 | 1 | 3,748 | 11 | 61,769 |
| 70 | 129 | 1,189,203 | 2 | 5,291 | 3 | 16,115 |
| 71 | 140 | 1,152,873 | 2 | 15,612 | 12 | 70,115 |
| 72 | 116 | 907,538 | 2 | 11,708 | 8 | 39,803 |
| 73 | 105 | 967,161 | 1 | 6,208 | 7 | 47,968 |
| 74 | 96 | 675,287 | 1 | 1,657 | 3 | 15,461 |
| 75 | 105 | 900,278 | 2 | 6,914 | 8 | 18,871 |
| 76 | 83 | 648,175 | - | - | 4 | 26,998 |
| 77 | 72 | 548,879 | 3 | 15,179 | 7 | 29,889 |
| 78 | 61 | 397,026 | 1 | 3,126 | 9 | 63,574 |
| 79 | 57 | 383,646 | - | - | 6 | 35,168 |
| 80 | 48 | 353,851 | 2 | 6,303 | 5 | 48,432 |
| 81 | 55 | 350,995 | - | - | 3 | 7,041 |
| 82 | 33 | 216,682 | - | - | 7 | 34,148 |
| 83 | 29 | 161,040 | 2 | 6,040 | 11 | 60,523 |



Table 6: Summary of Retired Member and Beneficiary Data by Attained Age (continued)

| | Serv | vice Pensioners | Disab | ility Pensioners | В | eneficiaries |
|-------|--------|------------------|--------|------------------|--------|------------------|
| Age | Number | Annual Allowance | Number | Annual Allowance | Number | Annual Allowance |
| 84 | 28 | 181,564 | - | - | 2 | 5,613 |
| 85 | 36 | 173,393 | - | - | 8 | 36,854 |
| 86 | 34 | 165,593 | - | - | 6 | 34,284 |
| 87 | 21 | 115,122 | - | - | 3 | 12,906 |
| 88 | 23 | 124,099 | - | - | 1 | 1,021 |
| 89 | 13 | 66,751 | - | - | 6 | 23,564 |
| 90 | 8 | 35,242 | - | - | - | - |
| 91 | 14 | 75,475 | - | - | 2 | 7,104 |
| 92 | 10 | 54,432 | - | - | 1 | 3,649 |
| 93 | 4 | 14,825 | - | - | 1 | 9,190 |
| 94 | 8 | 22,423 | - | - | 1 | 1,688 |
| 95 | 1 | 1,687 | - | - | 1 | 2,197 |
| 96 | 4 | 15,729 | - | - | - | - |
| 97 | 5 | 22,351 | - | - | 1 | 1,787 |
| 98 | 2 | 15,263 | - | - | 1 | 1,787 |
| 99 | - | - | - | - | 1 | 794 |
| Total | 2,465 | \$ 21,916,377 | 58 | \$ 419,575 | 211 | \$ 1,173,518 |



Table 7: Summary of Retired Member and Beneficiary Data by Attained Age

Group A

| | Serv | vice Pensioners | Disab | ility Pensioners | В | eneficiaries |
|----------------|--------|------------------|--------|------------------|--------|------------------|
| Age | Number | Annual Allowance | Number | Annual Allowance | Number | Annual Allowance |
| <u><</u> 30 | 0 | 0 | 0 | 0 | 1 | 4,741 |
| 41 | - | - | - | - | 1 | 1,686 |
| 47 | - | - | 1 | 7,404 | - | - |
| 51 | - | - | 1 | 1,789 | - | - |
| 52 | - | - | 1 | 1,295 | 1 | 3,268 |
| 55 | - | - | 2 | 7,681 | 2 | 3,956 |
| 57 | 3 | 28,023 | 1 | 5,835 | - | - |
| 58 | - | - | 1 | 7,875 | - | - |
| 59 | 5 | 21,139 | 1 | 10,969 | 4 | 13,781 |
| 60 | 7 | 43,888 | - | - | 1 | 1,726 |
| 61 | 10 | 64,604 | - | - | - | - |
| 62 | 11 | 60,042 | 1 | 1,732 | 3 | 7,846 |
| 63 | 22 | 130,170 | 1 | 8,006 | 1 | 1,233 |
| 64 | 27 | 166,375 | 1 | 7,345 | 1 | 2,359 |
| 65 | 36 | 122,630 | - | - | 2 | 8,783 |
| 66 | 56 | 291,143 | 1 | 1,719 | 2 | 5,436 |
| 67 | 74 | 358,137 | 3 | 19,729 | - | - |
| 68 | 77 | 337,675 | - | - | 1 | 25,996 |
| 69 | 75 | 348,698 | 1 | 3,748 | 4 | 23,295 |
| 70 | 55 | 327,566 | - | - | 1 | 4,838 |
| 71 | 66 | 363,870 | 1 | 6,992 | 6 | 33,367 |
| 72 | 53 | 228,737 | 2 | 11,708 | 3 | 12,040 |
| 73 | 39 | 232,786 | - | - | 2 | 5,267 |
| 74 | 41 | 214,281 | - | - | 1 | 1,536 |
| 75 | 38 | 214,441 | 1 | 4,766 | 4 | 9,829 |
| 76 | 38 | 225,388 | - | - | 3 | 10,581 |
| 77 | 31 | 156,996 | 1 | 4,222 | 4 | 12,096 |
| 78 | 25 | 101,772 | 1 | 3,126 | 4 | 14,990 |
| 79 | 18 | 88,086 | - | - | 2 | 6,560 |
| 80 | 16 | 62,946 | 2 | 6,303 | - | - |
| 81 | 24 | 124,630 | - | - | 1 | 1,758 |
| 82 | 12 | 53,306 | - | - | 6 | 25,012 |
| 83 | 14 | 57,836 | 2 | 6,040 | 2 | 2,959 |
| 84 | 12 | 54,756 | - | - | 1 | 2,358 |
| 85 | 19 | 64,320 | - | - | 3 | 7,540 |
| 86 | 18 | 54,495 | - | - | 2 | 10,516 |
| 87 | 8 | 35,244 | - | - | 2 | 5,552 |
| 88 | 13 | 60,852 | - | - | 1 | 1,021 |



Table 7: Summary of Retired Member and Beneficiary Data by Attained Age (continued)

Group A (continued)

| | Serv | ice Pensioners | Disab | ility Pensioners | В | eneficiaries |
|-------|--------|------------------|--------|------------------|--------|------------------|
| Age | Number | Annual Allowance | Number | Annual Allowance | Number | Annual Allowance |
| 89 | 4 | 10,328 | - | - | 5 | 13,918 |
| 90 | 7 | 26,666 | - | - | - | - |
| 91 | 6 | 28,455 | - | - | 2 | 7,104 |
| 92 | 6 | 30,452 | - | - | - | - |
| 93 | 4 | 14,825 | - | - | 1 | 9,190 |
| 94 | 7 | 21,120 | - | - | 1 | 1,688 |
| 95 | 1 | 1,687 | - | - | 1 | 2,197 |
| 96 | 4 | 15,729 | - | - | - | - |
| 97 | 3 | 7,088 | - | - | - | - |
| 98 | 1 | 12,802 | - | - | 1 | 1,787 |
| 102 | - | - | - | - | 1 | 794 |
| Total | 987 | \$ 4,864,818 | 27 | \$ 138,192 | 86 | \$ 311,558 |



Table 8: Summary of Retired Member and Beneficiary Data by Attained Age

Group B

| | Serv | ice Pensioners | Disab | ility Pensioners | В | eneficiaries |
|----------------|--------|------------------|--------|------------------|--------|------------------|
| Age | Number | Annual Allowance | Number | Annual Allowance | Number | Annual Allowance |
| <u><</u> 30 | 0 | 0 | 0 | 0 | 1 | 6,572 |
| 33 | - | - | - | - | 1 | 1,809 |
| 39 | - | - | - | - | 1 | 1,027 |
| 42 | - | - | - | - | 1 | 1,015 |
| 47 | - | - | 1 | 7,023 | 2 | 10,217 |
| 49 | - | - | 1 | 7,777 | 4 | 32,162 |
| 54 | 1 | 5,877 | - | - | 1 | 9,311 |
| 56 | 3 | 62,388 | - | - | 2 | 19,203 |
| 57 | 5 | 93,814 | - | - | 1 | 3,833 |
| 58 | 3 | 57,718 | - | - | 2 | 8,040 |
| 59 | 5 | 98,867 | 1 | 4,485 | 1 | 6,147 |
| 60 | 7 | 116,624 | 2 | 7,684 | 1 | 15,770 |
| 61 | 12 | 150,612 | - | - | 3 | 17,006 |
| 62 | 22 | 239,515 | 1 | 6,585 | 1 | 3,465 |
| 63 | 54 | 603,648 | 2 | 13,672 | 1 | 1,615 |
| 64 | 53 | 507,547 | 2 | 32,945 | 1 | 6,445 |
| 65 | 65 | 784,899 | 2 | 9,453 | 1 | 2,396 |
| 66 | 62 | 571,934 | 1 | 7,839 | 3 | 52,708 |
| 67 | 78 | 861,502 | 1 | 5,791 | 3 | 10,230 |
| 68 | 79 | 758,581 | - | - | 5 | 33,358 |
| 69 | 80 | 780,337 | - | - | 6 | 30,196 |
| 70 | 63 | 592,799 | 2 | 5,291 | 2 | 11,277 |
| 71 | 58 | 538,120 | 1 | 8,620 | 6 | 36,748 |
| 72 | 57 | 553,446 | - | - | 3 | 18,842 |
| 73 | 52 | 456,943 | 1 | 6,208 | 5 | 42,701 |
| 74 | 47 | 360,510 | 1 | 1,657 | 1 | 10,107 |
| 75 | 50 | 430,072 | 1 | 2,148 | 4 | 9,042 |
| 76 | 38 | 321,199 | - | - | - | - |
| 77 | 32 | 270,904 | 2 | 10,957 | 1 | 8,301 |
| 78 | 32 | 245,396 | - | - | 5 | 48,584 |
| 79 | 34 | 256,186 | - | - | 3 | 15,506 |
| 80 | 30 | 282,839 | - | - | 4 | 44,809 |
| 81 | 25 | 129,982 | - | - | 2 | 5,283 |
| 82 | 18 | 135,012 | - | - | 1 | 9,136 |
| 83 | 14 | 85,417 | - | - | 9 | 57,564 |
| 84 | 14 | 114,282 | - | - | 1 | 3,255 |
| 85 | 17 | 109,073 | - | - | 5 | 29,314 |
| 86 | 15 | 109,781 | - | - | 3 | 18,903 |
| 87 | 12 | 76,028 | - | - | 1 | 7,354 |
| 88 | 10 | 63,247 | - | - | - | - |



Table 8: Summary of Retired Member and Beneficiary Data by Attained Age (continued)

Group B (continued)

| | Serv | ice Pensioners | Disab | ility Pensioners | Beneficiaries | | |
|-------|--------|------------------|--------|------------------|---------------|------------------|--|
| Age | Number | Annual Allowance | Number | Annual Allowance | Number | Annual Allowance | |
| 89 | 8 | 45,362 | - | - | 1 | 9,646 | |
| 90 | 1 | 8,576 | - | - | - | - | |
| 91 | 12 | 71,000 | - | - | 1 | 3,649 | |
| 93 | 1 | 1,303 | - | - | - | - | |
| 97 | 1 | 2,461 | - | - | - | - | |
| Total | 1,171 | \$ 10,962,117 | 22 | \$ 138,135 | 101 | \$ 668,181 | |



Table 9: Summary of Retired Member and Beneficiary Data by Attained Age

Group C

| | Serv | vice Pensioners | Disab | ility Pensioners | В | eneficiaries |
|----------------|--------|------------------|--------|------------------|--------|------------------|
| Age | Number | Annual Allowance | Number | Annual Allowance | Number | Annual Allowance |
| <u><</u> 30 | 0 | 0 | 2 | 15,032 | 1 | 9,529 |
| 51 | - | - | 2 | 27,658 | - | - |
| 55 | 3 | 42,887 | - | - | - | - |
| 56 | 3 | 96,163 | - | - | - | - |
| 57 | 6 | 141,046 | 1 | 6,918 | 3 | 31,647 |
| 58 | 8 | 249,625 | - | - | 1 | 4,605 |
| 59 | 14 | 293,569 | - | - | 1 | 14,231 |
| 60 | 11 | 307,720 | - | - | 1 | 17,124 |
| 61 | 11 | 285,975 | - | - | - | - |
| 62 | 18 | 389,560 | 1 | 33,352 | - | - |
| 63 | 14 | 250,386 | 1 | 16,804 | 2 | 10,629 |
| 64 | 9 | 154,459 | - | - | - | - |
| 65 | 12 | 208,625 | - | - | 1 | 7,709 |
| 66 | 10 | 180,351 | - | - | - | - |
| 67 | 21 | 465,076 | - | - | 1 | 10,669 |
| 68 | 16 | 249,886 | - | - | 1 | 5,633 |
| 69 | 12 | 135,536 | - | - | 1 | 8,278 |
| 70 | 10 | 254,601 | - | - | - | - |
| 71 | 15 | 235,672 | - | - | - | - |
| 72 | 6 | 125,355 | - | - | 2 | 8,921 |
| 73 | 14 | 277,432 | - | - | - | - |
| 74 | 8 | 100,496 | - | - | 1 | 3,818 |
| 75 | 17 | 255,765 | - | - | - | - |
| 76 | 7 | 101,588 | - | - | 1 | 16,417 |
| 77 | 9 | 120,979 | - | - | 2 | 9,492 |
| 78 | 4 | 49,858 | - | - | - | - |
| 79 | 5 | 39,374 | - | - | 1 | 13,102 |
| 80 | 2 | 8,066 | - | - | 1 | 3,623 |
| 81 | 6 | 96,383 | - | - | - | _ |
| 82 | 3 | 28,364 | - | - | - | - |
| 83 | 3 | 30,313 | - | - | - | - |
| 86 | 2 | 5,167 | - | - | 1 | 4,865 |
| 88 | 1 | 11,061 | - | - | - | - |
| Total | 280 | \$ 5,191,338 | 7 | \$ 99,764 | 22 | \$ 180,292 |



Table 10: Summary of Retired Member and Beneficiary Data by Attained Age (continued)Group D

| | Service Pensioners | | Disability Pensioners | | Beneficiaries | |
|----------------|--------------------|------------------|-----------------------|------------------|---------------|------------------|
| Age | Number | Annual Allowance | Number | Annual Allowance | Number | Annual Allowance |
| <u><</u> 30 | 0 | 0 | 0 | 0 | 1 | 7,487 |
| 52 | 1 | 33,423 | 1 | 26,497 | - | - |
| 53 | - | - | - | - | 1 | 6,000 |
| 54 | 2 | 61,544 | - | - | - | - |
| 55 | 4 | 70,868 | - | - | - | - |
| 56 | 4 | 142,603 | - | - | - | - |
| 59 | 4 | 156,631 | - | - | - | - |
| 60 | 2 | 88,401 | - | - | - | - |
| 61 | 1 | 41,040 | - | - | - | - |
| 62 | 4 | 130,829 | 1 | 16,987 | - | - |
| 64 | 2 | 90,689 | - | - | - | - |
| 69 | 1 | 52,628 | - | - | - | - |
| 70 | 2 | 29,448 | - | - | - | - |
| Total | 27 | \$ 898,104 | 2 | \$ 43,484 | 2 | \$ 13,487 |



 Table 11: Summary of Retired Member and Beneficiary Data by Year of Retirement

| Year of Retirement | Number | Annual Allowance | Average Allowance |
|--------------------|--------|------------------|-------------------|
| 1975 | 1 | 5,163 | 5,163 |
| 1980 | 3 | 4,244 | 1,415 |
| 1983 | 4 | 7,981 | 1,995 |
| 1984 | 1 | 676 | 676 |
| 1985 | 4 | 6,499 | 1,625 |
| 1986 | 4 | 15,998 | 4,000 |
| 1987 | 2 | 3,126 | 1,563 |
| 1988 | 10 | 33,725 | 3,373 |
| 1989 | 6 | 26,363 | 4,394 |
| 1990 | 15 | 69,232 | 4,615 |
| 1991 | 23 | 95,367 | 4,146 |
| 1992 | 22 | 92,265 | 4,194 |
| 1993 | 20 | 104,572 | 5,229 |
| 1994 | 35 | 188,673 | 5,391 |
| 1995 | 48 | 288,409 | 6,009 |
| 1996 | 32 | 166,920 | 5,216 |
| 1997 | 43 | 239,875 | 5,578 |
| 1998 | 48 | 284,746 | 5,932 |
| 1999 | 48 | 306,333 | 6,382 |
| 2000 | 36 | 230,397 | 6,400 |
| 2001 | 52 | 348,629 | 6,704 |
| 2002 | 84 | 619,052 | 7,370 |
| 2003 | 87 | 575,017 | 6,609 |
| 2004 | 86 | 750,251 | 8,724 |
| 2005 | 96 | 754,684 | 7,861 |
| 2006 | 94 | 850,766 | 9,051 |
| 2007 | 139 | 1,101,308 | 7,923 |
| 2008 | 120 | 1,004,764 | 8,373 |
| 2009 | 136 | 1,026,507 | 7,548 |
| 2010 | 161 | 1,503,570 | 9,339 |
| 2011 | 186 | 1,917,992 | 10,312 |
| 2012 | 195 | 1,888,720 | 9,686 |
| 2013 | 217 | 2,308,019 | 10,636 |
| 2014 | 259 | 2,464,070 | 9,514 |
| 2015 | 248 | 2,528,263 | 10,195 |
| 2016 | 168 | 1,696,784 | 10,100 |
| 1975 | 1 | \$5,163 | \$5,163 |
| Total | 2,734 | \$ 23,509,470 | \$ 8,599 |



Schedule E: Amortization Schedule for the Unfunded Actuarial Accrued Liability

| Date | Balance | Amortization Payment (Year Following) |
|----------|-------------|---|
| 7/1/2016 | 163,348,930 | 10,161,686 |
| 7/1/2017 | 165,777,281 | 10,669,770 |
| 7/1/2018 | 167,870,792 | 11,203,258 |
| 7/1/2019 | 169,576,448 | 11,763,421 |
| 7/1/2020 | 170,835,700 | 12,351,592 |
| 7/1/2021 | 171,583,958 | 12,969,172 |
| 7/1/2022 | 171,750,044 | 13,617,631 |
| 7/1/2023 | 171,255,592 | 14,298,512 |
| 7/1/2024 | 170,014,402 | 15,013,438 |
| 7/1/2025 | 167,931,737 | 15,764,110 |
| 7/1/2026 | 164,903,559 | 16,552,315 |
| 7/1/2027 | 160,815,704 | 17,379,931 |
| 7/1/2028 | 155,542,980 | 18,248,927 |
| 7/1/2029 | 148,948,196 | 19,161,374 |
| 7/1/2030 | 140,881,104 | 20,119,442 |
| 7/1/2031 | 131,177,254 | 21,125,415 |
| 7/1/2032 | 119,656,754 | 22,181,685 |
| 7/1/2033 | 106,122,919 | 23,290,770 |
| 7/1/2034 | 90,360,817 | 24,455,308 |
| 7/1/2035 | 72,135,684 | 25,678,073 |
| 7/1/2036 | 51,191,212 | 26,961,977 |
| 7/1/2037 | 27,247,691 | 28,310,076 |
| 7/1/2038 | (0) | 0 |