

October 8, 2015

# Actuarial Valuation Report:

The City of Newport, Rhode Island  
Police Pension System as of July 1, 2015

HayGroup®



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This report presents the results of our actuarial valuation of the City of Newport, Rhode Island Police Pension System (the Plan) as of July 1, 2015.

The valuation includes a general discussion and comments on the various schedules included in the report. These schedules summarize the underlying calculations, asset information, participant data, plan benefits and actuarial assumptions, and should be considered an integral part of the valuation.

### **Purpose**

The main purposes of this report are to provide to the City of Newport (the City):

- The pension contribution under the City's funding policy for the 2016-2017 plan year;
- The financial condition of the Plan; and
- Information relating to the disclosure and reporting requirements of Statements No. 25, and No. 27 of the Governmental Accounting Standards Board.

### **Certification**

To the best of our knowledge, this report is complete and accurate and all costs and liabilities have been determined in conformance with generally accepted actuarial principles and on the basis of actuarial assumptions and methods which are reasonable (taking into account past experience under the Plan and reasonable expectations) and which in combination represent our best estimate of anticipated experience under the Plan.

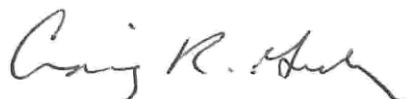
The actuaries certifying to this valuation are members of the Society of Actuaries or other professional actuarial organizations, and meet the General Qualification Standards of the American Academy of Actuaries for purposes of issuing Prescribed Statements of Actuarial Opinion.

Respectfully submitted,

HAY GROUP, INC.

A handwritten signature in black ink, appearing to read "Brent M. Mowery".

Brent M. Mowery, FSA, EA, FCA, MAAA  
Enrolled Actuary No. 14-3885

A handwritten signature in black ink, appearing to read "Craig R. Graby".

Craig R. Graby, EA, FCA, MAAA  
Enrolled Actuary No. 14-7319

## Comments on the Valuation

This is Hay Group's fourth valuation of the Plan. This report includes results for prior years based on methods and assumptions developed by the prior actuary.

### Plan Contribution

The Valuation Highlights exhibit shows the development of the Plan's contribution for the 2016-2017 fiscal year, developed in accordance with the City's funding policy. The total contribution is \$4,063,560. This total cost has increased from \$3,327,981, which was developed for the 2015-2016 fiscal year. The main reasons for the increase were the asset loss for the year and the improvement of the retirement accrual.

If the City wishes to pay the contribution on a monthly basis, beginning on July 31, the monthly payment would be \$327,519.

### Funding Policy

The funding requirement is the sum of two components, an annual normal cost and an amortization payment which will change from year to year in response to evolving plan experience. It is our understanding that beginning with the July 1, 2002 valuation, the amortization period was reduced from 30 to 29 years, and that for each year the amortization period decreases by one year. Thus, the amortization period for the July 1, 2015 valuation is 16 years. The normal cost and amortization is then offset by anticipated employee contributions to the Plan, to arrive at the net City contribution.

### Plan Assets

Schedule A contains information about the Plan's assets. The market value of the Plan's assets as of June 30, 2015 is \$60,203,022. The overall rate of return achieved for the 2014-2015 plan year was 5.4 percent.

The asset information used for the valuation was provided by the City. We have not audited such information, but have checked it for reasonableness and consistency.

### Funding Status

Schedule B provides the information on pension plans required by Statement Number 25 of the Governmental Accounting Standards Board.

Schedule C provides the information on pension plans required by Statement Number 27 of the Governmental Accounting Standards Board.

Schedule D discloses estimated City contributions and Plan benefits over the next twenty years. This open group projection shows that the Plan emerged from "critical status" (i.e., achieved a funding ratio of greater than 60%) on June 30, 2014 and should remain above 60% if the actuarial assumptions are reflective of the actual experience.

### **Participant Data**

Schedule E provides a distribution of the active participants as of July 1, 2015 by age and length of service. It also shows the average salary by age and service brackets. Schedule E also includes a breakdown of the inactive participants, by age and benefit amounts.

Although we have made tests to check for the reasonableness and consistency of the participant data, we have not audited the data but have relied on it as submitted by the City.

### **Actuarial Assumptions and Methods**

Schedule F summarizes the actuarial assumptions and cost methods used for the valuation. Effective with this July 1, 2015 valuation, (i) we adopted a more reasonable salary increase assumption for the near term, by lowering the assumed annual increase from 3.00% to 2.75% through July 1, 2022 and (ii) we implemented slight adjustments to the assumed retirement rates, to reflect a somewhat different expected pattern of future retirements due to negotiated benefit formula changes that became effective July 1, 2014. Otherwise, there were no changes in actuarial assumptions or cost methods since the prior valuation.

### **Plan Provisions**

Schedule G contains a summary of the principal provisions of the plan in effect as of July 1, 2015.

## Valuation Highlights

|   | <u>July 1, 2014</u>                      |         | <u>July 1, 2015</u>                      |
|---|--|---------|--|
| <b>A. Membership Data</b>   |  |         |  |
| 1. Active Members   |  |         |  |
| a. Number   | 79                                       |         | 76                                       |
| b. Expected covered payroll for fiscal year beginning on the valuation date | \$ 5,246,624                             |         | 5,489,942                                |
| c. Average pay  | \$ 66,413                                |         | 72,236                                   |
| d. Average age  | 40.9                                     |         | 41.1                                     |
| e. Average service  | 14.0                                     |         | 14.2                                     |
| 2. Retired members and beneficiaries  |  |         |  |
| a. Number   | 124                                      |         | 124                                      |
| b. Aggregate annual pension   | \$ 4,863,894                             |         | 5,155,330                                |
| c. Average annual pension   | \$ 39,225                                |         | 41,575                                   |
| d. Average age  | 67.2                                     |         | 66.9                                     |
| 3. Deferred vested members  |  |         |  |
| a. Number   | 0  |         | 1  |
| b. Aggregate annual pension   | \$ 0                                     |         | 36,000                                   |
| c. Average annual pension   | \$ 0                                     |         | 36,000                                   |
| d. Average age  | 0.0                                      |         | 49.0                                     |
| <b>B. Basic Valuation Results</b>   |  |         |  |
| 1. Normal cost <sup>1</sup>   | \$ 1,175,418                             | (22.4%) | 1,354,511 (24.7%)                        |
| 2. Actuarial accrued liability  |  |         |  |
| a. Active members   | \$ 22,782,955                            |         | 24,296,897                               |
| b. Retirees and beneficiaries   | 63,079,837                               |         | 68,186,712                               |
| c. Deferred vested  | 0  |         | 442,687                                  |
| d. Total  | <u>\$ 85,862,792</u>                     |         | <u>92,926,296</u>                        |
| 3. Valuation assets   | \$ 57,507,986                            |         | 60,203,022                               |
| 4. Unfunded actuarial accrued liability                                     | \$ 28,354,806                            |         | 32,723,274                               |
|   | <u>July 1, 2015 to<br/>June 30, 2016</u> |         | <u>July 1, 2016 to<br/>June 30, 2017</u> |
| <b>C. Development of Contribution</b>                                       |  |         |  |
| 1. Contribution for fiscal year of valuation                                |  |         |  |
| a. Normal cost with interest  | \$ 1,307,799                             |         | 1,507,063                                |
| b. Amortization of unfunded actuarial accrued liability                     | 2,470,598 <sup>2</sup>                   |         | 3,027,802 <sup>3</sup>                   |
| c. Anticipated employee contributions with interest                         | (450,417)                                |         | (471,305)                                |
| d. City contribution assumed deposited June 30                              | <u>\$ 3,327,981</u>                      |         | <u>4,063,560</u>                         |
| 2. Monthly City contribution beginning July 31                              | \$ 268,232                               |         | 327,519                                  |

<sup>1</sup> Percentages in parentheses represent amounts as percentages of covered payroll.

<sup>2</sup> Amortized over 17 years from the valuation date as a level percentage of payroll.

<sup>3</sup> Amortized over 16 years from the valuation date as a level percentage of payroll.

## Schedule A: Analysis of Plan Assets

### A.1. Schedule of Receipts and Disbursements

|   |                     |                     |
|---|---------------------|---------------------|
| (1) Market Value at July 1, 2014                    |                     | <b>\$57,507,986</b> |
| (2) Receipts  |                     |                     |
| a. City Contributions                               | \$ 4,012,174        |                     |
| b. Member Contributions                             | 487,883             |                     |
| c. Net Investment Income                            | 3,185,100           |                     |
| d. Total Receipts                                   | <b>\$ 7,685,157</b> |                     |
| (3) Disbursements                                   |                     |                     |
| a. Benefit Payments                                 | \$ 4,990,121        |                     |
| b. Total Disbursements                              | <b>\$ 4,990,121</b> |                     |
| (4) Market Value at June 30, 2015 [(1) + (2) - (3)] |                     | <b>\$60,203,022</b> |

### A. 2. Trust Investment Yield for 12 Months Ending June 30, 2015

|   |              |
|---|--------------|
| 1. Asset Market Value at July 1, 2014                           | \$57,507,986 |
| 2. City Contributions during the year (paid 7/1/14)             | 4,012,174    |
| 3. Member Contributions and Benefits paid during the year       | (4,502,238)  |
| 4. Asset Market Value at June 30, 2015                          | 60,203,022   |
| 5. Investment Increment   | 3,185,100    |
| 6. Approximate Average Asset Market Value (1) + (2) + [(3) / 2] | 59,269,041   |
| 7. Approximate Yield Rate (5) / (6)                             | 5.4%         |

## Schedule B: GASB 25 Disclosure Information

### B.1 Actuarial Accounting Date

Date Used to Compute Benefit and Asset Values — July 1, 2015

### B.2. Method and Assumptions

All methods and assumptions used for Plan accounting are summarized in Schedule F.

### B.3. Statement of Plan Net Assets

|  |                  |
|--|------------------|
| 1. Assets  |                  |
| a) Cash and Short Term Investments                       | \$(90,194)       |
| b) Receivables   | 0                |
| c) Investments at Fair Value                             |                  |
| (1) Fixed Income   | 10,660,348       |
| (2) Domestic Equities                                    | 38,209,545       |
| (3) Foreign Equities                                     | 7,435,049        |
| (4) Alternative Investments                              | <u>4,032,412</u> |
| d) Total Assets  | \$60,247,160     |
| 2. Liabilities   |                  |
| a) Payables for Investments Purchased and Other Payables | 44,138           |
| 3. Net Assets Held in Trust for Pension Benefits         | \$60,203,022     |



#### B.4. Schedule of Funding Progress

| Actuarial Valuation Date | Actuarial Value of Assets | Actuarial Accrued Liability (AAL) | Unfunded AAL | Funded Ratio | Covered Payroll | UAAL as % of Covered Payroll |
|--------------------------|---------------------------|-----------------------------------|--------------|--------------|-----------------|------------------------------|
| 6/30/02                  | 28,060,710                | 65,986,217                        | (37,925,507) | 42.53%       | 3,775,389       | (1004.55%)                   |
| 6/30/03                  | 29,217,703                | 67,277,252                        | (38,059,549) | 43.43%       | 4,007,324       | (949.75%)                    |
| 6/30/04                  | 33,645,290                | 58,014,568                        | (24,369,278) | 57.99%       | 4,383,668       | (555.91%)                    |
| 6/30/05                  | 36,209,737                | 61,626,704                        | (25,416,967) | 58.76%       | 4,527,283       | (561.42%)                    |
| 6/30/06                  | 39,118,117                | 62,635,048                        | (23,516,931) | 62.45%       | 4,757,611       | (494.30%)                    |
| 6/30/07                  | 44,288,895                | 70,038,232                        | (25,749,337) | 63.24%       | 4,752,900       | (541.76%)                    |
| 6/30/08                  | 41,952,553                | 68,177,847                        | (26,225,294) | 61.53%       | 5,129,935       | (511.22%)                    |
| 6/30/09                  | 37,852,800                | 73,443,988                        | (35,591,188) | 51.54%       | 4,990,094       | (713.24%)                    |
| 6/30/10                  | 42,240,992                | 74,866,848                        | (32,625,856) | 56.42%       | 4,972,175       | (656.17%)                    |
| 6/30/11                  | 43,693,248                | 76,570,775                        | (32,877,527) | 57.06%       | 5,048,815       | (651.19%)                    |
| 6/30/12                  | 43,320,088                | 82,684,359                        | (39,364,271) | 52.39%       | 5,033,625       | (782.03%)                    |
| 6/30/13                  | 48,411,954                | 82,838,152                        | (34,426,198) | 58.44%       | 5,147,999       | (668.73%)                    |
| 6/30/14                  | 57,507,986                | 85,862,792                        | (28,354,806) | 66.98%       | 5,246,624       | (540.44%)                    |
| 6/30/15                  | 60,203,022                | 92,926,296                        | (32,723,274) | 64.79%       | 5,489,942       | (596.06%)                    |

## B.5. Schedule of Employer Contributions

| Actuarial Valuation Date | Annual Required Contribution | Actual Contribution | Percentage Contributed |
|--------------------------|------------------------------|---------------------|------------------------|
| 7/1/92                   | 1,671,097                    | 1,930,973           | 115.55%                |
| 7/1/93                   | 1,823,577                    | 2,136,173           | 117.14%                |
| 7/1/94                   | 2,103,989                    | 2,226,085           | 105.80%                |
| 7/1/95                   | 2,279,943                    | 2,322,898           | 101.88%                |
| 7/1/96                   | 2,426,242                    | 1,793,369           | 73.92%                 |
| 7/1/97                   | 2,547,554                    | 2,759,907           | 108.34%                |
| 7/1/98                   | 2,274,548                    | 3,137,686           | 137.95%                |
| 7/1/99                   | 2,094,752                    | 2,510,675           | 119.86%                |
| 7/1/00                   | 1,696,189                    | 2,703,167           | 159.37%                |
| 7/1/01                   | 1,985,197                    | 2,273,062           | 114.50%                |
| 7/1/02                   | 2,099,345                    | 2,698,300           | 128.53%                |
| 7/1/03                   | 3,247,875                    | 3,247,875           | 100.00%                |
| 7/1/04                   | 3,389,486                    | 3,889,486           | 114.75%                |
| 7/1/05                   | 2,440,649                    | 2,440,649           | 100.00%                |
| 7/1/06                   | 2,385,996                    | 2,440,649           | 102.29%                |
| 7/1/07                   | 2,272,177                    | 2,272,049           | 100.00%                |
| 7/1/08                   | 2,406,091                    | 2,472,177           | 102.75%                |
| 7/1/09                   | 2,470,822                    | 2,670,822           | 108.09%                |
| 7/1/10                   | 3,116,642                    | 3,116,642           | 100.00%                |
| 7/1/11                   | 2,899,579                    | 2,899,579           | 100.00%                |
| 7/1/12                   | 3,461,972                    | 3,461,972           | 100.00%                |
| 7/1/13                   | 3,954,174                    | 3,954,174           | 100.00%                |
| 7/1/14                   | 3,729,898                    | 4,012,174           | 107.57%                |

## Schedule C: GASB 27 Disclosure Information

### Development of the Net Pension Obligation (Asset)

| Fiscal Year Ending | Val. Interest Rate | Amort. Years | Amort. Factor | NPO at Beginning of Year | Annual Required Contribution | Interest on NPO | Adjustment to NPO | Annual Pension Cost | Actual Contribution | Increase in NPO | NPO at End of Year |
|--------------------|--------------------|--------------|---------------|--------------------------|------------------------------|-----------------|-------------------|---------------------|---------------------|-----------------|--------------------|
| 6/30/93            | 8.00%              | 30           | 22.7490       | (603,644)                | 1,671,097                    | (48,292)        | 26,535            | 1,649,341           | 1,930,973           | (281,632)       | (885,276)          |
| 6/30/94            | 8.00%              | 30           | 22.7490       | (885,276)                | 1,823,577                    | (70,822)        | 38,015            | 1,791,670           | 2,136,173           | (344,503)       | (1,229,779)        |
| 6/30/95            | 8.25%              | 30           | 18.4393       | (1,229,779)              | 2,103,989                    | (101,457)       | 66,693            | 2,069,225           | 2,226,085           | (156,860)       | (1,386,639)        |
| 6/30/96            | 8.25%              | 30           | 18.4393       | (1,386,639)              | 2,279,943                    | (114,398)       | 75,200            | 2,240,745           | 2,322,898           | (82,153)        | (1,468,792)        |
| 6/30/97            | 8.25%              | 30           | 18.4393       | (1,468,792)              | 2,426,242                    | (121,175)       | 79,656            | 2,384,722           | 1,793,369           | 591,353         | (877,439)          |
| 6/30/98            | 8.25%              | 30           | 18.4393       | (877,439)                | 2,547,554                    | (72,389)        | 47,585            | 2,522,750           | 2,759,907           | (237,157)       | (1,114,596)        |
| 6/30/99            | 8.25%              | 30           | 18.4393       | (1,114,596)              | 2,274,548                    | (91,954)        | 60,447            | 2,243,040           | 3,137,686           | (894,646)       | (2,009,242)        |
| 6/30/00            | 8.25%              | 30           | 18.4393       | (2,009,242)              | 2,094,752                    | (165,762)       | 108,965           | 2,037,954           | 2,510,675           | (472,721)       | (2,481,963)        |
| 6/30/01            | 8.25%              | 30           | 20.1557       | (2,481,963)              | 1,696,189                    | (204,762)       | 123,140           | 1,614,567           | 2,703,167           | (1,088,600)     | (3,570,563)        |
| 6/30/02            | 8.25%              | 30           | 20.1557       | (3,570,563)              | 1,985,197                    | (294,571)       | 177,149           | 1,867,775           | 2,273,062           | (405,287)       | (3,975,850)        |
| 6/30/03            | 8.25%              | 30           | 20.1557       | (3,975,850)              | 2,099,345                    | (328,008)       | 197,257           | 1,968,594           | 2,698,300           | (729,706)       | (4,705,556)        |
| 6/30/04            | 8.25%              | 29           | 19.6866       | (4,705,556)              | 3,247,875                    | (388,208)       | 239,023           | 3,098,690           | 3,247,875           | (149,185)       | (4,854,741)        |
| 6/30/05            | 8.25%              | 28           | 19.2064       | (4,854,741)              | 3,389,486                    | (400,516)       | 252,767           | 3,241,737           | 3,889,486           | (647,749)       | (5,502,490)        |
| 6/30/06            | 8.25%              | 27           | 15.8723       | (5,502,490)              | 2,440,649                    | (453,955)       | 346,673           | 2,333,367           | 2,440,649           | (107,282)       | (5,609,772)        |
| 6/30/07            | 8.25%              | 26           | 15.5296       | (5,609,772)              | 2,385,996                    | (462,806)       | 361,231           | 2,284,421           | 2,440,649           | (156,228)       | (5,766,000)        |
| 6/30/08            | 8.25%              | 25           | 14.8848       | (5,766,000)              | 2,272,177                    | (475,695)       | 387,375           | 2,183,857           | 2,272,049           | (88,192)        | (5,854,192)        |
| 6/30/09            | 8.25%              | 24           | 14.5315       | (5,854,192)              | 2,406,091                    | (482,971)       | 402,862           | 2,325,982           | 2,472,177           | (146,195)       | (6,000,387)        |
| 6/30/10            | 8.25%              | 23           | 14.1638       | (6,000,387)              | 2,470,822                    | (495,032)       | 423,642           | 2,399,432           | 2,670,822           | (271,390)       | (6,271,777)        |
| 6/30/11            | 7.50%              | 22           | 14.1447       | (6,271,777)              | 3,116,642                    | (470,383)       | 443,401           | 3,089,660           | 3,116,642           | (26,982)        | (6,298,759)        |
| 6/30/12            | 7.50%              | 21           | 13.7252       | (6,298,759)              | 2,899,579                    | (472,407)       | 458,919           | 2,886,091           | 2,899,579           | (13,488)        | (6,312,247)        |
| 6/30/13            | 7.50%              | 20           | 13.2894       | (6,312,247)              | 3,461,972                    | (473,419)       | 474,984           | 3,463,537           | 3,461,972           | 1,565           | (6,310,682)        |
| 6/30/14            | 7.50%              | 19           | 12.8369       | (6,310,682)              | 3,954,174                    | (473,301)       | 491,605           | 3,972,478           | 3,954,174           | 18,304          | (6,292,378)        |
| 6/30/15            | 7.50%              | 18           | 11.8170       | (6,292,378)              | 3,729,898                    | (471,928)       | 532,485           | 3,790,455           | 4,012,174           | (221,719)       | (6,514,097)        |

Note: Amortization factors used for periods prior to FY 2001 did not reflect future longevity or promotion pay increases.

## Schedule D: Forecast of Plan Contributions and Benefit Payments

The following table discloses the estimated City contributions and benefits to be paid from the Plan over the next twenty years, under the current set of actuarial assumptions. Effective July 1, 2014 new police hires are enrolled in the State of Rhode Island Municipal Employees' Retirement System. Since there will be no new entrants to this group, this projection no longer assumes new entrants. This is why the Normal Cost and Expected Employee Contributions are now decreasing in each of the projection years.

| FY Ending 6/30 | Normal Cost | Amortization of Unfunded AL | Estimated Employee Contributions | Annual Required Contribution | Benefit Payments | Funded % |
|----------------|-------------|-----------------------------|----------------------------------|------------------------------|------------------|----------|
| 2017           | 1,507,063   | 3,027,802                   | 471,305                          | 4,063,560                    | 5,354,420        | 64.8%    |
| 2018           | 1,436,724   | 3,106,907                   | 449,737                          | 4,093,893                    | 5,575,463        | 66.5%    |
| 2019           | 1,391,454   | 3,187,393                   | 436,435                          | 4,142,412                    | 5,790,666        | 68.3%    |
| 2020           | 1,332,928   | 3,269,134                   | 419,382                          | 4,182,680                    | 6,024,123        | 70.0%    |
| 2021           | 1,307,817   | 3,351,957                   | 411,750                          | 4,248,024                    | 6,309,961        | 71.8%    |
| 2022           | 1,244,631   | 3,435,426                   | 392,443                          | 4,287,614                    | 6,554,257        | 73.7%    |
| 2023           | 1,214,079   | 3,519,401                   | 383,095                          | 4,350,384                    | 6,801,543        | 75.5%    |
| 2024           | 1,154,641   | 3,603,207                   | 365,119                          | 4,392,729                    | 7,010,998        | 77.5%    |
| 2025           | 1,142,737   | 3,686,430                   | 361,516                          | 4,467,651                    | 7,237,789        | 79.5%    |
| 2026           | 1,101,196   | 3,767,691                   | 348,560                          | 4,520,327                    | 7,462,123        | 81.7%    |
| 2027           | 1,078,161   | 3,845,751                   | 341,363                          | 4,582,550                    | 7,685,861        | 83.9%    |
| 2028           | 1,051,672   | 3,531,599                   | 333,222                          | 4,250,049                    | 7,963,612        | 86.3%    |
| 2029           | 1,000,659   | 4,093,844                   | 317,200                          | 4,777,303                    | 8,213,871        | 88.5%    |
| 2030           | 955,406     | 4,139,868                   | 302,929                          | 4,792,345                    | 8,475,276        | 91.2%    |
| 2031           | 895,962     | 4,146,237                   | 283,726                          | 4,758,473                    | 8,664,106        | 94.1%    |
| 2032           | 873,889     | 4,031,959                   | 276,814                          | 4,629,034                    | 8,879,886        | 97.1%    |
| 2033           | 826,273     | -                           | 262,209                          | 564,064                      | 9,096,120        | 100.2%   |
| 2034           | 784,860     | -                           | 249,142                          | 535,718                      | 9,260,442        | 100.3%   |
| 2035           | 748,356     | -                           | 237,601                          | 510,755                      | 9,580,150        | 100.4%   |
| 2036           | 649,578     | -                           | 205,574                          | 444,005                      | 9,728,054        | 100.5%   |
| 2037           | 610,860     | -                           | 193,202                          | 417,658                      | 9,865,850        | 100.6%   |

## Schedule E: Profiles of Population

### E.1. Number of Active Participants by Age and Duration

| ACTIVES      |           |           |           |           |          |           |          |           |
|--------------|-----------|-----------|-----------|-----------|----------|-----------|----------|-----------|
| MALE         |           |           |           |           |          |           |          |           |
| Age Group    | 0- 4      | 5-9       | 10-14     | 15-19     | 20-24    | 25-29     | 30+      | Total     |
| 0- 19        | 0         | 0         | 0         | 0         | 0        | 0         | 0        | 0         |
| 20- 24       | 0         | 0         | 0         | 0         | 0        | 0         | 0        | 0         |
| 25- 29       | 10        | 1         | 0         | 0         | 0        | 0         | 0        | 11        |
| 30- 34       | 3         | 6         | 2         | 0         | 0        | 0         | 0        | 11        |
| 35- 39       | 3         | 2         | 3         | 2         | 0        | 0         | 0        | 10        |
| 40- 44       | 0         | 1         | 5         | 4         | 0        | 0         | 0        | 10        |
| 45- 49       | 0         | 0         | 1         | 5         | 5        | 3         | 0        | 14        |
| 50- 54       | 0         | 0         | 0         | 0         | 3        | 5         | 1        | 9         |
| 55- 59       | 0         | 0         | 0         | 0         | 0        | 1         | 2        | 3         |
| 60- 64       | 0         | 0         | 0         | 0         | 0        | 0         | 1        | 1         |
| 65+          | 0         | 0         | 0         | 0         | 0        | 1         | 0        | 1         |
| <b>TOTAL</b> | <b>16</b> | <b>10</b> | <b>11</b> | <b>11</b> | <b>8</b> | <b>10</b> | <b>4</b> | <b>70</b> |
|              |           |           | AVG AGE   | 41.04     | AVG DUR  | 14.30     |          |           |

| ACTIVES       |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| FEMALE        |          |          |          |          |          |          |          |          |
| Age Group     | 0- 4     | 5-9      | 10-14    | 15-19    | 20-24    | 25-29    | 30+      | Total    |
| 0- 19         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 20- 24        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 25- 29        | 2        | 0        | 0        | 0        | 0        | 0        | 0        | 2        |
| 30- 34        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 35- 39        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 40- 44        | 0        | 0        | 0        | 1        | 0        | 0        | 0        | 1        |
| 45- 49        | 0        | 0        | 0        | 1        | 0        | 0        | 0        | 1        |
| 50- 54        | 0        | 0        | 0        | 0        | 0        | 1        | 0        | 1        |
| 55- 59        | 0        | 1        | 0        | 0        | 0        | 0        | 0        | 1        |
| 60- 64        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 65+           | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| <b>TOTAL:</b> | <b>2</b> | <b>1</b> | <b>0</b> | <b>2</b> | <b>0</b> | <b>1</b> | <b>0</b> | <b>6</b> |
|               |          |          | AVG AGE  | 42.33    | AVG DUR  | 12.67    |          |          |

| ACTIVES       |           |           |            |           |            |           |          |           |
|---------------|-----------|-----------|------------|-----------|------------|-----------|----------|-----------|
| TOTAL         |           |           |            |           |            |           |          |           |
| Age Group     | 0- 4      | 5-9       | 10-14      | 15-19     | 20-24      | 25-29     | 30+      | Total     |
| 0- 19         | 0         | 0         | 0          | 0         | 0          | 0         | 0        | 0         |
| 20- 24        | 0         | 0         | 0          | 0         | 0          | 0         | 0        | 0         |
| 25- 29        | 12        | 1         | 0          | 0         | 0          | 0         | 0        | 13        |
| 30- 34        | 3         | 6         | 2          | 0         | 0          | 0         | 0        | 11        |
| 35- 39        | 3         | 2         | 3          | 2         | 0          | 0         | 0        | 10        |
| 40- 44        | 0         | 1         | 5          | 5         | 0          | 0         | 0        | 11        |
| 45- 49        | 0         | 0         | 1          | 6         | 5          | 3         | 0        | 15        |
| 50- 54        | 0         | 0         | 0          | 0         | 3          | 6         | 1        | 10        |
| 55- 59        | 0         | 1         | 0          | 0         | 0          | 1         | 2        | 4         |
| 60- 64        | 0         | 0         | 0          | 0         | 0          | 0         | 1        | 1         |
| 65+           | 0         | 0         | 0          | 0         | 0          | 1         | 0        | 1         |
| <b>TOTAL:</b> | <b>18</b> | <b>11</b> | <b>11</b>  | <b>13</b> | <b>8</b>   | <b>11</b> | <b>4</b> | <b>76</b> |
|               |           |           | AVG<br>AGE | 41.14     | AVG<br>DUR | 14.17     |          |           |

## E. 2. Number of Inactive Participants by Age and Annual Pension

| RETIRED      |              |                  |              |                |               |                  |
|--------------|--------------|------------------|--------------|----------------|---------------|------------------|
|              | MALE         |                  | FEMALE       |                | TOTAL         |                  |
| Age Group    | Number       | Annual Pension   | Number       | Annual Pension | Number        | Annual Pension   |
| 40- 44       | 0            | 0                | 0            | 0              | 0             | 0                |
| 45- 49       | 4            | 165,317          | 1            | 35,080         | 5             | 200,397          |
| 50- 54       | 6            | 332,131          | 1            | 44,272         | 7             | 376,403          |
| 55- 59       | 12           | 637,848          | 0            | 0              | 12            | 637,848          |
| 60- 64       | 16           | 832,405          | 0            | 0              | 16            | 832,405          |
| 65- 69       | 17           | 908,820          | 0            | 0              | 17            | 908,820          |
| 70- 74       | 10           | 480,794          | 0            | 0              | 10            | 480,794          |
| 75- 79       | 9            | 419,650          | 0            | 0              | 9             | 419,650          |
| 80- 84       | 2            | 92,859           | 0            | 0              | 2             | 92,859           |
| 85- 89       | 2            | 95,653           | 0            | 0              | 2             | 95,653           |
| 90- 94       | 2            | 105,845          | 0            | 0              | 2             | 105,845          |
| 95- 99       | 0            | 0                | 0            | 0              | 0             | 0                |
| 100-104      | 0            | 0                | 0            | 0              | 0             | 0                |
| 105-109      | 0            | 0                | 0            | 0              | 0             | 0                |
| 110-114      | 0            | 0                | 0            | 0              | 0             | 0                |
| 115-119      | 0            | 0                | 0            | 0              | 0             | 0                |
| 120+         | 0            | 0                | 0            | 0              | 0             | 0                |
| <b>TOTAL</b> | <b>80</b>    | <b>4,071,322</b> | <b>2</b>     | <b>79,352</b>  | <b>82</b>     | <b>4,150,674</b> |
|              | AVG AGE:     | 65.5             | AVG AGE:     | 47.5           | AVG AGE:      | 65.0             |
|              | AVG PENSION: | 50,892           | AVG PENSION: | 39,676         | AVG PENSION : | 50,618           |

| <b>DISABLED</b>  |                     |                       |                     |                       |                      |                       |
|------------------|---------------------|-----------------------|---------------------|-----------------------|----------------------|-----------------------|
|                  | <b>MALE</b>         |                       | <b>FEMALE</b>       |                       | <b>TOTAL</b>         |                       |
| <b>Age Group</b> | <b>Number</b>       | <b>Annual Pension</b> | <b>Number</b>       | <b>Annual Pension</b> | <b>Number</b>        | <b>Annual Pension</b> |
| 20- 24           | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 25- 29           | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 30- 34           | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 35- 39           | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 40- 44           | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 45- 49           | 4                   | 194,540               | 1                   | 48,426                | 5                    | 242,966               |
| 50- 54           | 1                   | 28,593                | 0                   | 0                     | 1                    | 28,593                |
| 55- 59           | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 60- 64           | 3                   | 65,965                | 0                   | 0                     | 3                    | 65,965                |
| 65- 69           | 0                   | 0                     | 1                   | 45,035                | 1                    | 45,035                |
| 70- 74           | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 75- 79           | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 80- 84           | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 85- 89           | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 90- 94           | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 95- 99           | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 100-104          | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 105-109          | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 110-114          | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 115-119          | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| 120+             | 0                   | 0                     | 0                   | 0                     | 0                    | 0                     |
| <b>TOTAL</b>     | <b>8</b>            | <b>289,098</b>        | <b>2</b>            | <b>93,461</b>         | <b>10</b>            | <b>382,559</b>        |
|                  | <b>AVG AGE:</b>     | <b>53.1</b>           | <b>AVG AGE:</b>     | <b>56.5</b>           | <b>AVG AGE:</b>      | <b>53.8</b>           |
|                  | <b>AVG PENSION:</b> | <b>36,137</b>         | <b>AVG PENSION:</b> | <b>46,731</b>         | <b>AVG PENSION :</b> | <b>38,256</b>         |



| <b>BENEFICIARY</b> |               |                       |               |                       |               |                       |
|--------------------|---------------|-----------------------|---------------|-----------------------|---------------|-----------------------|
|                    | <b>MALE</b>   |                       | <b>FEMALE</b> |                       | <b>TOTAL</b>  |                       |
| <b>Age Group</b>   | <b>Number</b> | <b>Annual Pension</b> | <b>Number</b> | <b>Annual Pension</b> | <b>Number</b> | <b>Annual Pension</b> |
| 15- 19             | 0             | 0                     | 0             | 0                     | 0             | 0                     |
| 20- 24             | 0             | 0                     | 0             | 0                     | 0             | 0                     |
| 25- 29             | 0             | 0                     | 0             | 0                     | 0             | 0                     |
| 30- 34             | 0             | 0                     | 0             | 0                     | 0             | 0                     |
| 35- 39             | 0             | 0                     | 0             | 0                     | 0             | 0                     |
| 40- 44             | 0             | 0                     | 0             | 0                     | 0             | 0                     |
| 45- 49             | 0             | 0                     | 0             | 0                     | 0             | 0                     |
| 50- 54             | 0             | 0                     | 1             | 9,971                 | 1             | 9,971                 |
| 55- 59             | 0             | 0                     | 0             | 0                     | 0             | 0                     |
| 60- 64             | 0             | 0                     | 4             | 76,809                | 4             | 76,809                |
| 65- 69             | 0             | 0                     | 5             | 141,860               | 5             | 141,860               |
| 70- 74             | 0             | 0                     | 5             | 102,953               | 5             | 102,953               |
| 75- 79             | 0             | 0                     | 5             | 133,099               | 5             | 133,099               |
| 80- 84             | 0             | 0                     | 3             | 13,650                | 3             | 13,650                |
| 85- 89             | 0             | 0                     | 7             | 114,271               | 7             | 114,271               |
| 90- 94             | 0             | 0                     | 2             | 29,484                | 2             | 29,484                |
| 95- 99             | 0             | 0                     | 0             | 0                     | 0             | 0                     |
| 100-104            | 0             | 0                     | 0             | 0                     | 0             | 0                     |
| 105-109            | 0             | 0                     | 0             | 0                     | 0             | 0                     |
| 110-114            | 0             | 0                     | 0             | 0                     | 0             | 0                     |
| 115-119            | 0             | 0                     | 0             | 0                     | 0             | 0                     |
| 120+               | 0             | 0                     | 0             | 0                     | 0             | 0                     |
| <b>TOTAL</b>       | <b>0</b>      | <b>0</b>              | <b>32</b>     | <b>622,097</b>        | <b>32</b>     | <b>622,097</b>        |
|                    | AVG AGE:      | 0.0                   | AVG AGE:      | 75.4                  | AVG AGE:      | 75.4                  |
|                    | AVG PENSION:  | 0                     | AVG PENSION:  | 19,441                | AVG PENSION : | 19,441                |

| VESTED TERMS |              |                |              |                |               |                |
|--------------|--------------|----------------|--------------|----------------|---------------|----------------|
|              | MALE         |                | FEMALE       |                | TOTAL         |                |
| Age Group    | Number       | Annual Pension | Number       | Annual Pension | Number        | Annual Pension |
| 20- 24       | 0            | 0              | 0            | 0              | 0             | 0              |
| 25- 29       | 0            | 0              | 0            | 0              | 0             | 0              |
| 30- 34       | 0            | 0              | 0            | 0              | 0             | 0              |
| 35- 39       | 0            | 0              | 0            | 0              | 0             | 0              |
| 40- 44       | 0            | 0              | 0            | 0              | 0             | 0              |
| 45- 49       | 1            | 36,000         | 0            | 0              | 1             | 36,000         |
| 50- 54       | 0            | 0              | 0            | 0              | 0             | 0              |
| 55- 59       | 0            | 0              | 0            | 0              | 0             | 0              |
| 60- 64       | 0            | 0              | 0            | 0              | 0             | 0              |
| 65- 69       | 0            | 0              | 0            | 0              | 0             | 0              |
| 70- 74       | 0            | 0              | 0            | 0              | 0             | 0              |
| 75- 79       | 0            | 0              | 0            | 0              | 0             | 0              |
| 80- 84       | 0            | 0              | 0            | 0              | 0             | 0              |
| 85- 89       | 0            | 0              | 0            | 0              | 0             | 0              |
| 90- 94       | 0            | 0              | 0            | 0              | 0             | 0              |
| 95- 99       | 0            | 0              | 0            | 0              | 0             | 0              |
| 100-104      | 0            | 0              | 0            | 0              | 0             | 0              |
| 105-109      | 0            | 0              | 0            | 0              | 0             | 0              |
| 110-114      | 0            | 0              | 0            | 0              | 0             | 0              |
| 115-119      | 0            | 0              | 0            | 0              | 0             | 0              |
| 120+         | 0            | 0              | 0            | 0              | 0             | 0              |
| <b>TOTAL</b> | <b>1</b>     | <b>36,000</b>  | <b>0</b>     | <b>0</b>       | <b>1</b>      | <b>36,000</b>  |
|              | AVG AGE:     | 49.0           | AVG AGE:     | 0              | AVG AGE:      | 49.0           |
|              | AVG PENSION: | 36,000         | AVG PENSION: | 0              | AVG PENSION : | 36,000         |

## Schedule F: Actuarial Methods and Assumptions

|                                    |   |
|------------------------------------|---|
| <b>Actuarial Cost Method:</b>      | Individual Entry Age Normal Actuarial Cost Method - Under this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit. The normal cost is the portion of the actuarial present value allocated to the valuation year. For inactive members, the actuarial accrued liability is equal to the present value of benefits. Inactive members do not have a normal cost. The portion of this actuarial present value not provided for at the valuation date by the sum of the actuarial value of the assets and actuarial present value of future normal costs is the unfunded actuarial accrued liability. The unfunded actuarial accrued liability represents the excess of the total actuarial accrued liability over the valuation assets. |
| <b>Asset Valuation Method:</b>     | Market value, as reported by the City   |
| <b>Actuarial Assumptions:</b>      |   |
| 1. <i>Interest</i>                 | 7.50% per year, net of investment expenses  |
| 2. <i>Salary Increases</i>         | 2.75% per year through July 1, 2022. Thereafter, 3.00% per year plus longevity increases of 3.00% after seventh year of employment and 0.50% for each year of employment thereafter through the thirty-first year of employment. No longevity increases are assumed after the thirty-first year of employment.  |
| 3. <i>Cost of Living Increases</i> | Tied to the general wage increase which is usually assumed to be 3.00% per year. Benefits payable to service related disability retirements on or after July 1, 2014 are assumed to increase 2.75% per year.  |
| 4. <i>Mortality</i>                |   |
| a. Healthy Members                 | RP-2000 Combined Healthy Mortality Table, applied on a fully generational basis using Mortality Projection Scale AA. This table contains sufficient margin for improvement in life expectancy.  |
| b. Disabled Members                | The 1985 Wyatt Pension Disability Table (unisex rates)  |

5. *Disability*

Rates of disability are based on an employee's age. Selected ages are listed below. 90% of disabilities are assumed to be service related.

| <u>Attained Age</u> | <u>Probability of Disability</u> |
|---------------------|----------------------------------|
| 25                  | 0.17%                            |
| 35                  | 0.29%                            |
| 45                  | 0.72%                            |
| 55                  | 1.21%                            |

6. *Withdrawal*

Rates of withdrawal are based on an employee's length of service, as follows:

| <b>Years of Service</b> | <b>Probability of Withdrawal</b> |
|-------------------------|----------------------------------|
| < 1                     | 4.50%                            |
| 1                       | 3.38%                            |
| 2                       | 3.00%                            |
| 3                       | 2.63%                            |
| 4                       | 2.25%                            |
| 5                       | 1.88%                            |
| 6                       | 1.50%                            |
| 7                       | 1.13%                            |
| 8                       | 0.75%                            |
| 9                       | 0.38%                            |
| 10+                     | 0.00%                            |

7. *Retirement*

Rates of retirement are based on an employee's length of service, as follows:

| Years of Service | Probability of Retirement |
|------------------|---------------------------|
| 20               | 10%                       |
| 21               | 2%                        |
| 22               | 2%                        |
| 23               | 2%                        |
| 24               | 2%                        |
| 25               | 40%                       |
| 26               | 10%                       |
| 27               | 10%                       |
| 28               | 10%                       |
| 29               | 10%                       |
| 30               | 40%                       |
| 31               | 20%                       |
| 32               | 20%                       |
| 33               | 20%                       |
| 34               | 20%                       |
| 35+              | 100%                      |

The above rates for years of service 21 through 29 have been adjusted since the prior valuation to reflect a somewhat different expected pattern of retirements as a result of negotiated benefit formula changes that became effective July 1, 2014.

8. *Administrative Expenses*

Assumed to be paid by the Plan Sponsor outside the trust.

9. *Benefit Compensation Limits*

Benefit limits under Section 415 and compensation limits under Section 401(a)(17) of the Internal Revenue Code are assumed to have no impact on benefits earned under this Plan.

10. *Marriage/Dependents*

75% of active police are assumed to be married. For all participants, wives are assumed to be three years younger than their husbands. For the purposes of valuing the death benefit, unmarried members are assumed to have no dependent children at death.

11. *Valuation Date*

July 1, 2015.

## Schedule G: Summary of Plan Provisions as of July 1, 2015

### 1. *Effective Date*

Most recent amendment July 1, 2014

### 2. *Eligibility*

All members of the police department who contribute to the pension fund and who were hired before July 1, 2014 (or enrolled in the Police Academy as of September, 2014). All other police hires on or after July 1, 2014 will be covered by the State of Rhode Island Municipal Employees' Retirement System.

### 3. *Retirement*

#### a. Eligibility

Members who have completed 20 years of service may retire.

#### b. Benefit Formula

The annual benefit at retirement is equal to the percentage of final annual salary specified in the table below, plus \$100 per year for each year of service over 25 (maximum \$1,000). For pension purposes, annual salary includes regular and longevity pay.

| <u>Years of Service</u> | <u>Benefit as a<br/>Percentage of Final<br/>Annual Salary</u> |
|-------------------------|---|
| 20                      | 50.0%   |
| 21                      | 52.5%   |
| 22                      | 55.0%   |
| 23                      | 57.5%   |
| 24                      | 60.0%   |
| 25                      | 65.0%   |
| 26                      | 66.0%   |
| 27                      | 67.0%   |
| 28                      | 68.0%   |
| 29                      | 69.0%   |
| 30 or more              | 70.0%   |

Note: The benefit levels shown above payable at years of service 25 through 29 were increased (from those shown in the prior valuation report) as a result of negotiated benefit formula changes that became effective July 1, 2014.

#### c. Commencement Date

Retirement benefits commence as of the first payroll period after retirement

d. Form of Payment

The annual benefit calculated in accordance with the formula in (b) above is payable monthly for the remainder of the retired member's life, with 67.5% of the member's benefit payable for the lifetime of the member's surviving spouse.

**4. *Vested Termination***

a. Eligibility

Upon termination of employment after 10 years of service, a member is eligible for a benefit deferred to retirement age.

b. Benefit Formula

2.5% of final annual salary multiplied by full years of service at termination.

c. Commencement Date

20th anniversary of employment.

d. Form of Payment

Same as retirement.

**5. *Disability Retirement***

a. Eligibility

i. Non-Service Related

No benefit prior to completion of 7 years of service. A member who is disabled with between 7 and 20 years of service is eligible to receive disability retirement benefits.

ii. Service Related

Retirement because of a job-related mental or physical incapacity.

b. Benefit Formula

i. Non-Service Related

50% of final annual salary.

ii. Service Related

66-2/3% of final annual salary.

c. Commencement Date

Benefits commence as of the first payroll period after disability.

d. Form of Payment

Same as retirement.

**6. *Non-Vested Termination of Employment***

A member who leaves employment prior to completing 10 years of service will receive a lump sum payment of accumulated contributions.

**7. *Death Before Retirement - Survivor Annuity Benefits***

a. Eligibility

Death while actively employed.

b. Benefit Formula

Surviving spouse (or, if none, dependent children) receives benefit of 67.5% of final annual salary, reduced pro rata if the deceased member had less than 20 years of service.

- c. Commencement Date                      Benefits commence as of the first payroll period after death.
  - d. Form of Payment                         Monthly life annuity.
- 8. *Retiree Cost of Living Increase***
- For retirements before July 1, 2014: Pensions for retirees (but not disabled retirees or beneficiaries) are indexed to the negotiated pay increases for active police. Terminated vested members receive 3% annual increases after benefit commencement.
- For retirements on or after July 1, 2014: Pensions for retirees with at least 20 years of service are indexed to the negotiated pay increases for active police. For retirees with 20 to 25 years of service, the indexing begins when the retiree would have attained 25 years of service. Retirements with less than 20 years of service do not get indexed except for job related disability retirements. Job related disability retirement benefits are indexed using the Bureau of Labor Statistics CPI for Northeast Urban Wage Earners, but will not exceed 3.00% nor be lower than 1.00% per year.
- 9. *Employee Contributions***
- 8% of salary.