

# District of Columbia Retirement Board Teachers' Retirement Plan and Police Officers and Firefighters' Retirement Plan 

Actuarial Valuations as of October 1, 2023 to Determine the District's Contribution for the Fiscal Year Ending September 30, 2025

## Bolton

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Employee Benefits, Actuarial \& Investment Consulting
December 11, 2023
The Board of Trustees
District of Columbia Retirement Board
900 7th Street, NW, 2nd Floor
Washington, DC 20001
Re: $\quad$ District of Columbia Teachers' Retirement Plan and District of Columbia Police Officers and Firefighters' Retirement Plan Actuarial Valuations

Dear Trustees:
The following sets forth the actuarial valuations of the District of Columbia Teachers' Retirement Plan and the District of Columbia Police Officers and Firefighters' Retirement Plan (collectively referred to as the Plans) as of October 1, 2023. Section I of the report provides a summary, while Sections II through VI contain the development of the District's contribution for the 2025 fiscal year, along with a summary of the census and asset data, plan provisions, assumptions and actuarial methods. Section VII provides a glossary of many of the terms used in this report. The appendices of the report provide information on plan funding, solvency, a discussion of risk, adjustments to the actuarially determined contribution, gain and loss from experience, and valuation balance sheets for the DCRB Annual Comprehensive Financial Report (ACFR).

We are available to answer any questions on the material in this report or to provide explanations or further details, as appropriate. The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. We are not aware of any direct or materially indirect financial interest or relationship, including investments or other services that could create a conflict of interest, which would impair the objectivity of our work.

Respectfully submitted,


Thomas Vicente, FSA, EA


Michelle L. Boyles, FSA, EA, MAAA

Ann M. Sturner, FSA, EA

## Section I. Executive Summary

## Background

Bolton Partners, Inc. has prepared the following report that sets forth the actuarial valuation of the District of Columbia Teachers' Retirement Plan (Teachers) and District of Columbia Police Officers and Firefighters' Retirement Plan (Police and Fire), collectively referred to as the Plans, as of October 1, 2023. Unless stated otherwise, the calculations reflected in this report are solely for the District-provided benefit and do not include the Federal portion of the benefit. Some demographic information includes a breakdown of District only, Federal only, and split annuitants.

## Actuarially Determined Contributions (ADC)

The actuarially determined contribution (ADC) amount for all Plans increased as a dollar amount and as a percentage of payroll this year.
(\$ in Thousands)

| Teachers, Police, and Fire | FY2023 |  | FY2024 | FY2025 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| ADC (before §1-907.02(c) adjustment) | $\$$ | 132,222 | $\$$ | 142,433 | $\$$ | 218,346 |
| Total Payroll |  | $1,136,998$ |  | $1,138,337$ |  | $1,274,322$ |
| Percent of Total Payroll |  | $11.63 \%$ |  | $12.51 \%$ |  | $17.13 \%$ |
| ADC (after §1-907.02(c) adjustment) | $\$$ | 125,343 | $\$$ | 130,107 | $\$$ | 224,434 |


| Teachers | FY2023 |  |  | FY2024 | FY2025 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| ADC (before §1-907.02(c) adjustment) | $\$$ | 43,913 | $\$$ | 48,763 | $\$$ | 75,360 |
| Total Payroll |  | 624,500 |  | 636,961 | 728,095 |  |
| Percent of Total Payroll | $7.03 \%$ |  | $7.66 \%$ |  | $10.35 \%$ |  |
| ADC (after $\S 1-907.02$ (c) adjustment) | $\$$ | 47,835 | $\$$ | 50,224 | $\$$ | 80,981 |


| Police and Fire Combined | FY2023 |  | FY2024 |  | FY2025 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ADC (before §1-907.02(c) adjustment) | \$ | 88,309 | \$ | 93,670 | \$ | 142,986 |
| Total Payroll |  | 512,498 |  | 501,375 |  | 546,226 |
| Percent of Total Payroll |  | 17.23\% |  | 18.68\% |  | 26.18\% |
| ADC (after §1-907.02(c) adjustment) | \$ | 77,508 | \$ | 79,884 | \$ | 143,454 |
| Police | FY2023 |  | FY2024 |  | FY2025 |  |
| ADC (before §1-907.02(c) adjustment) | \$ | 61,338 | \$ | 65,713 | \$ | 99,428 |
| Total Payroll |  | 333,307 |  | 325,927 |  | 351,108 |
| Percent of Total Payroll |  | 18.40\% |  | 20.16\% |  | 28.32\% |
| ADC (after §1-907.02(c) adjustment) | \$ | 53,909 | \$ | 56,190 | \$ | 99,601 |


| Fire | FY2023 |  |  | FY2024 | FY2025 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| ADC (before §1-907.02(c) adjustment) | $\$$ | 26,971 | $\$$ | 27,957 | $\$$ | 43,558 |
| Total Payroll |  | 179,191 |  | 175,448 |  | 195,118 |
| Percent of Total Payroll |  | $15.05 \%$ |  | $15.93 \%$ |  | $22.32 \%$ |
| ADC (after §1-907.02(c) adjustment) | $\$$ | 23,599 | $\$$ | 23,693 | $\$$ | 43,853 |

## Section I. Executive Summary

The tables below compare the actuarial accrued liabilities of the plans and the assets of the plans for the current and prior valuation dates. In addition the liabilities are compared to the assets to determine the funded ratios of the plans.

## Funding Measures - Teachers

| Teachers | 10/1/2022 |  | 10/1/2023 |  | Percent Change |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Actuarial Accrued Liability |  |  |  |  |  |
| a. Active | \$ | 1,396,967 | \$ | 1,662,948 | 19.04\% |
| b. Retirees and Beneficiaries |  | 1,235,162 |  | 1,305,420 | 5.69\% |
| c. Inactive with Deferred Benefits |  | 239,440 |  | 261,561 | 9.24\% |
| d. Total | \$ | 2,871,570 | \$ | 3,229,928 | 12.48\% |
| 2. Actuarial Value of Assets | \$ | 2,838,193 | \$ | 2,966,048 | 4.50\% |
| 3. Plan Funded Ratio (2. / 1.d.) |  | 98.84\% |  | 91.83\% |  |
| 4. Market Value of Assets | \$ | 2,573,334 | \$ | 2,884,320 | 12.08\% |
| 5. Funded Ratio based on Market Value of Assets (4. / 1.d.) |  | 89.61\% |  | 89.30\% |  |

(\$ in Thousands)

## Funding Measures - Police and Fire

| Police and Fire | 10/1/2022 |  | 10/1/2023 |  | Percent Change |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Actuarial Accrued Liability |  |  |  |  |  |
| a. Active | \$ | 2,932,991 | \$ | 3,212,901 | 9.54\% |
| b. Retirees and Beneficiaries |  | 3,608,693 |  | 4,073,120 | 12.87\% |
| c. Inactive with Deferred Benefits |  | 97,440 |  | 72,675 | (25.42\%) |
| d. Total | \$ | 6,639,124 | \$ | 7,358,696 | 10.84\% |
| 2. Actuarial Value of Assets | \$ | 7,612,268 | \$ | 7,864,126 | 3.31\% |
| 3. Plan Funded Ratio (2. / 1.d.) |  | 114.66\% |  | 106.87\% |  |
| 4. Market Value of Assets | \$ | 6,901,545 | \$ | 7,653,760 | 10.90\% |
| 5. Funded Ratio based on Market Value of Assets (4. / 1.d.) |  | 103.95\% |  | 104.01\% |  |

(\$ in Thousands)

## Funding Measures - Police

| Police | 10/1/2022 |  | 10/1/2023 |  | Percent Change |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Actuarial Accrued Liability |  |  |  |  |  |
| a. Active | \$ | 1,911,590 | \$ | 2,093,547 | 9.52\% |
| b. Retirees and Beneficiaries |  | 2,663,456 |  | 3,003,059 | 12.75\% |
| c. Inactive with Deferred Benefits |  | 71,879 |  | 55,698 | (22.51\%) |
| d. Total | \$ | 4,646,924 | \$ | 5,152,305 | 10.88\% |
| 2. Actuarial Value of Assets | \$ | 5,220,802 | \$ | 5,382,785 | 3.10\% |
| 3. Plan Funded Ratio (2. / 1.d.) |  | 112.35\% |  | 104.47\% |  |
| 4. Market Value of Assets | \$ | 4,733,562 | \$ | 5,238,509 | 10.67\% |
| 5. Funded Ratio based on Market Value of Assets (4. / 1.d.) |  | 101.86\% |  | 101.67\% |  |

(\$ in Thousands)

## Funding Measures - Fire

| Fire | 10/1/2022 |  | 10/1/2023 |  | Percent Change |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Actuarial Accrued Liability |  |  |  |  |  |
| a. Active | \$ | 1,021,401 | \$ | 1,119,354 | 9.59\% |
| b. Retirees and Beneficiaries |  | 945,238 |  | 1,070,060 | 13.21\% |
| c. Inactive with Deferred Benefits |  | 25,561 |  | 16,977 | (33.58\%) |
| d. Total | \$ | 1,992,199 | \$ | 2,206,391 | 10.75\% |
| 2. Actuarial Value of Assets | \$ | 2,391,466 | \$ | 2,481,341 | 3.76\% |
| 3. Plan Funded Ratio (2. / 1.d.) |  | 120.04\% |  | 112.46\% |  |
| 4. Market Value of Assets | \$ | 2,167,983 | \$ | 2,415,251 | 11.41\% |
| 5. Funded Ratio based on Market Value of Assets (4. / 1.d.) |  | 108.82\% |  | 109.47\% |  |

(\$ in Thousands)

## Risk Measures

The primary risk that a plan sponsor incurs from a defined benefit plan is the risk of substantial increases in annual contributions. Many variables can influence future results and the sensitivity of the ADC will vary from plan to plan. As part of the annual valuation, we monitor commonly used measures of the relative riskiness of a pension plan, relative to the plan sponsor and the employee group covered by the plan. A brief review of the risk metrics and a discussion of key risks are shown in Appendix 3. Additional detailed or focused assessment of risks is outside the scope of the actuarial valuation but can be conducted as a separate assignment.

## Experience Analysis

The following factors affected the District's contribution, as a percentage of payroll:

- Investment returns during FY2023 were about $\$ 156.4$ million greater than expected for Teachers and $\$ 429.8$ million greater than expected for Police and Fire. A portion of that gain is reflected in this valuation, with the remaining portions to be reflected in future valuations. The gain was offset by the continued recognition of prior investment gains and losses. There is a total of $\$ 81.7$ million in net deferred investment losses for Teachers and $\$ 210.4$ million in net deferred investments losses for Police and Fire as of October 1, 2023 that will be reflected in future valuations. These deferrals produce an overall experience loss on investment income.
- Retiree COLAs in FY2023 were more than the assumed annual increases.
- The average participant pay increased by $12.8 \%$ for Teachers, $12.4 \%$ for Police, and $9.1 \%$ for Fire. This was primarily as a result of collective bargaining agreements.
- Total participant payroll amount increased by $14.3 \%$ for Teachers and $8.9 \%$ for Police and Fire over the prior year; the assumption is $4.0 \%$ growth per year. This was primarily as a result of collective bargaining agreements.


## Changes in Method, Assumptions, and Plan Amendments

There were no plan provision changes, other than an update to the child survivor benefits which are annually adjusted for inflation. No method or assumption changes.

## Impact of COVID-19

Because the long-term net impact of COVID-19 on mortality, salary increases, and changes in turnover and retirement behavior is not possible to estimate at this time, we have made no adjustments to any of the assumptions.

## Sources of Information

Membership data as of July 1, 2023, and market value of assets as of October 1, 2023 were provided by or at the direction of the District of Columbia Retirement Board. While we have reviewed this data for consistency and completeness, we have not audited this data. For valuation purposes, members were treated as remaining in the Plans as of October 1, 2023.

## Section II. Actuarial Certification

This actuarial valuation sets forth our calculation of an estimate of the liabilities of the District of Columbia Teachers' Retirement Plan and the District of Columbia Police Officers and Firefighters' Retirement Plan, together with a comparison of these liabilities with the value of the plan assets, as submitted by the District of Columbia Retirement Board (the Board). These calculations, and comparisons with assets, are applicable for the valuation date only. The future is uncertain, and the Plans may become better funded or more poorly funded in the future. This valuation does not provide any guarantee that the Plans will be able to provide the promised benefits in the future.

This report was prepared for the internal use of the Board and its auditors in connection with our actuarial valuations of the pension plan. The purpose of this report is to provide the recommended employer contribution for the 2025 fiscal year. It is neither intended nor necessarily suitable for other purposes. Bolton is not responsible for the consequences of any other use or the reliance upon this report by any other party.

This report is based on plan provisions, census data, and asset data submitted by the Board. We have relied on this information for purposes of preparing this report. We have not audited the census or asset data provided, however based on our review the data appears to be reasonable and consistent with previously provided information. Unless otherwise noted in our report, we believe the information provided is sufficiently complete and reliable for purposes of the results presented in this report. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information. The Board is solely responsible for the validity and completeness of this information.

The Board is responsible for selecting the plan's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in this report. The Board is solely responsible for communicating to Bolton any changes required thereto.

The Board is solely responsible for selecting the plan's investment policies, asset allocations and individual investments. Bolton's actuaries have not provided any investment advice to the Board.

This is a deterministic valuation in that it is based on a single set of assumptions. This set of assumptions is one possible basis for our calculations. We may consider that some factors are not material to the valuation of the plan and may not provide a specific assumption for those factors. We may have used other assumptions in the past. We will likely consider changes in assumptions at a future date.

Different assumptions or scenarios within the range of possibilities may also be reasonable and results based on those assumptions would be different. As a result of the uncertainty inherent in a forward-looking projection over a very long period of time, no one projection is uniquely "correct" and many alternative projections of the future could also be regarded as reasonable. Two different actuaries could, quite reasonably, arrive at different results based on the same data and different views of the future.

The Board could reasonably ask how the valuation would change if we used a different assumption set or if plan experience exhibited variations from our assumptions. This report does not contain such an analysis. That type of analysis would be a separate assignment.

In addition, decisions regarding benefit improvements, benefit changes, the trust's investment policy, and similar issues should not be based on this valuation. These issues are complex and other factors should be considered when making such decisions. Other factors might include the anticipated vitality of the local economy and future growth expectations, as well as other economic and financial factors.

The cost of this plan is determined by the benefits promised by the plan, the plan's participant population, the investment experience of the plan and many other factors. An actuarial valuation is a budgeting tool for the Board. It does not affect the cost of the plan. Different funding methods provide for different timing of contributions to the plan. As the experience of the plan evolves, it is normal for the level of contributions to the plan to change. If a contribution is not made for a particular year, either by deliberate choice or because of an error in a calculation, that contribution can be made in later years. We are not responsible for the consequences of any decision by the Board to make contributions at a future time rather than an earlier time. The Board is responsible for funding the cost of the plan.

The report is conditioned on the assumption of an ongoing plan and is not meant to present the actuarial position of the plan in the case of plan termination. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status), and changes in plan provisions or applicable law.

The valuation was completed using both proprietary and third-party models (including software and tools). We have tested these models to ensure they are used for their intended purposes, within their known limitations, and without any known material inconsistencies unless otherwise stated.

The calculations in this report have been computed in accordance with our understanding of generally accepted actuarial principles and practices and fairly reflect the actuarial position of the plan. The various actuarial assumptions and methods which have been used are, in our opinion, appropriate for the purposes of this report.

We make every effort to ensure that our calculations are accurately performed. We reserve the right to correct any potential errors by amending the results of this report or by including the corrections in a future valuation report.

Bolton does not practice law and, therefore, cannot and does not provide legal advice. Any statutory interpretation on which this report is based reflects Bolton's understanding as an actuarial firm. Bolton recommends that recipients of this report consult with legal counsel when making any decisions regarding compliance with ERISA, the Internal Revenue Code, or any other statute or regulation.

The Board should notify Bolton promptly after receipt of this report if the Board disagrees with anything contained in the report or is aware of any information that would affect the results of the report that has not been communicated to Bolton or incorporated herein. The report will be deemed final and acceptable to the Board unless the Board promptly provides such notice to Bolton.

The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. We are not aware of any direct or material indirect financial interest or relationship, including investments or other services, which could create a conflict of interest that would impair the objectivity of our work.

We are available to answer any questions on the material in this report to provide explanations or further details as appropriate.


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## Section III. Determination of District Contributions

## Derivation of Liabilities - Teachers

Below is a summary of the actuarial accrued liability of the future benefits expected to be paid from the Plan.

| Teachers | 10/1/2022 |  | 10/1/2023 |  |
| :---: | :---: | :---: | :---: | :---: |
| 1. Participants |  |  |  |  |
| a. Active |  | 6,088 |  | 6,171 |
| b. Retirees and Beneficiaries |  | 4,065 |  | 4,066 |
| i. Service Retirements |  | 3,762 |  | 3,761 |
| ii. Disability Retirements |  | 102 |  | 95 |
| iii. Survivors |  | 201 |  | 210 |
| c. Inactive with Deferred Benefits |  | 1,718 |  | 1,844 |
| d. Total |  | 11,871 |  | 12,081 |
| 2. Active Payroll | \$ | 612,463 | \$ | 700,092 |
| 3. Actuarial Accrued Liability |  |  |  |  |
| a. Active Participants | \$ | 1,396,967 | \$ | 1,662,948 |
| b. Retirees and Beneficiaries |  | 1,235,162 |  | 1,305,420 |
| i. Service Retirements |  | 1,178,659 |  | 1,248,305 |
| ii. Disability Retirements |  | 34,459 |  | 33,544 |
| iii. Survivors |  | 22,044 |  | 23,571 |
| c. Inactive with Deferred Benefits |  | 239,440 |  | 261,561 |
| d. Total |  | 2,871,570 |  | 3,229,928 |
| 4. Actuarial Value of Assets | \$ | 2,838,193 | \$ | 2,966,048 |
| 5. Unfunded Actuarial Liability (3.d.- 4.) |  | 33,376 |  | 263,880 |
| 6. Funded Ratio (4. $\div 3$.d.) |  | 98.84\% |  | 91.83\% |

(\$ in Thousands)

## Derivation of Liabilities - Police and Fire

Below is a summary of the actuarial accrued liability of the future benefits expected to be paid from the Plan.

## Police and Fire

## 10/1/2022

10/1/2023

1. Participants

| a. Active |  | 5,133 |  | 5,033 |
| :---: | :---: | :---: | :---: | :---: |
| b. Retirees and Beneficiaries |  | 4,373 |  | 4,585 |
| i. Service Retirements |  | 3,331 |  | 3,508 |
| ii. Disability Retirements |  | 436 |  | 452 |
| iii. Survivors |  | 606 |  | 625 |
| c. Inactive with Deferred Benefits |  | 356 |  | 351 |
| d. Total |  | 9,862 |  | 9,969 |
| 2. Active Payroll | \$ | 482,092 | \$ | 525,218 |
| 3. Actuarial Accrued Liability |  |  |  |  |
| a. Active Participants | \$ | 2,932,991 | \$ | 3,212,901 |
| b. Retirees and Beneficiaries |  | 3,608,693 |  | 4,073,120 |
| i. Service Retirements |  | 3,140,881 |  | 3,566,173 |
| ii. Disability Retirements |  | 263,258 |  | 286,680 |
| iii. Survivors |  | 204,554 |  | 220,266 |
| c. Inactive with Deferred Benefits |  | 97,440 |  | 72,675 |
| d. Total |  | 6,639,124 |  | 7,358,696 |
| 4. Actuarial Value of Assets | \$ | 7,612,268 | \$ | 7,864,126 |
| 5. Unfunded Actuarial Liability (3.d.- 4.) |  | $(973,145)$ |  | $(505,430)$ |
| 6. Funded Ratio (4. $\div 3$.d.) |  | 114.66\% |  | 106.87\% |

(\$ in Thousands)

## Derivation of Liabilities - Police

Below is a summary of the actuarial accrued liability of the future benefits expected to be paid from the Plan.

## Police <br> 10/1/2022 <br> 10/1/2023

1. Participants
a. Active
3,282
3,146
b. Retirees and Beneficiaries

3,251
3,405
i. Service Retirements

2,478
2,607
ii. Disability Retirements 335

345
iii. Survivors 438

453
c. Inactive with Deferred Benefits

258 260

| d. | Total |  | $\mathbf{6 , 7 9 1}$ |  | $\mathbf{6 , 8 1 1}$ |
| :--- | :--- | :--- | ---: | ---: | ---: |
| 2. | Active Payroll | $\$$ | 313,391 | $\$$ | 337,604 |

3. Actuarial Accrued Liability

| a. Active Participants | \$ | 1,911,590 | \$ | 2,093,547 |
| :---: | :---: | :---: | :---: | :---: |
| b. Retirees and Beneficiaries |  | 2,663,456 |  | 3,003,059 |
| i. Service Retirements |  | 2,326,257 |  | 2,638,260 |
| ii. Disability Retirements |  | 201,655 |  | 218,090 |
| iii. Survivors |  | 135,544 |  | 146,709 |
| c. Inactive with Deferred Benefits |  | 71,879 |  | 55,698 |
| d. Total |  | 4,646,924 |  | 5,152,305 |
| 4. Actuarial Value of Assets | \$ | 5,220,802 | \$ | 5,382,785 |
| 5. Unfunded Actuarial Liability (3.d.- 4.) |  | $(573,878)$ |  | $(230,480)$ |
| 6. Funded Ratio (4. $\div 3$.d.) |  | 112.35\% |  | 104.47\% |

(\$ in Thousands)

## Derivation of Liabilities - Fire

Below is a summary of the actuarial accrued liability of the future benefits expected to be paid from the Plan.

## Fire <br> 10/1/2022 <br> 10/1/2023

1. Participants

(\$ in Thousands)
Experience Gain/(Loss) and Projection of Unfunded Liability - TeachersThe experience gain/(loss) from October 1, 2022 to October 1, 2023 and projection of theunfunded actuarial liability from October 1, 2023 to October 1, 2024, the beginning of the fiscalyear, is shown below. Please see Appendix 5 for a detailed breakdown of gain/(loss) sources.

| Experience Gain/(Loss) - Teachers | 10/1/2023 |  |
| :---: | :---: | :---: |
| 1. Unfunded Liability as of 10/01/2022 | \$ | 33,376 |
| 2. Total FY2023 Normal Cost |  | 85,056 |
| 3. Actual FY2023 Expenses |  | 4,880 |
| 4. Total FY2023 Actual Contributions |  | 106,526 |
| 5. Interest |  | 4,274 |
| 6. Expected Unfunded Liability as of 10/01/2023 |  | 21,060 |
| 7. Change due to Plan Amendments |  | 0 |
| 8. Change due to Assumptions and/or Methods |  | 0 |
| 9. Expected Unfunded Liability as of 10/01/2023 |  | 21,060 |
| 10. Actual Unfunded Liability as of 10/01/2023 |  | 263,880 |
| 11. Gain/(Loss) |  | $(242,820)$ |
| Projected Unfunded Liability - Teachers |  |  |
| 1. Actual Unfunded Liability as of 10/01/2023 | \$ | 263,880 |
| 2. Total Normal Cost FY2024 |  | 96,040 |
| 3. Expected District and Employee Contributions FY2024 |  | 108,114 |
| 4. Expected Expenses FY2024 |  | 8,793 |
| 5. Interest |  | 19,438 |
| 6. Projected Unfunded Liability as of 10/01/2024 | \$ | 280,038 |

(\$ in Thousands)
Experience Gain/(Loss) and Projection of Unfunded Liability - PoliceThe experience gain/(loss) from October 1, 2022 to October 1, 2023 and projection of theunfunded actuarial liability from October 1, 2023 to October 1, 2024, the beginning of the fiscalyear, is shown below. Please see Appendix 5 for a detailed breakdown of gain/(loss) sources.

| Experience Gain/(Loss) - Police | 10/1/2023 |  |
| :--- | :--- | ---: |
| 1. | Unfunded Liability as of 10/01/2022 | $(573,878)$ |
| 2. | Total FY2023 Normal Cost | 120,079 |
| 3. Actual FY2023 Expenses | 9,935 |  |
| 4. | Total FY2023 Actual Contributions | 82,674 |
| 5. Interest | $(30,601)$ |  |
| 6. Expected Unfunded Liability as of 10/01/2023 | $(557,139)$ |  |
| 7. Change due to Plan Amendments | 0 |  |
| 8. | Change due to Assumptions and/or Methods | 0 |
| 9. | Expected Unfunded Liability as of 10/01/2023 | $(557,139)$ |
| 10. Actual Unfunded Liability as of $10 / 01 / 2023$ | $(230,480)$ |  |
| 11. Gain/(Loss) | $(326,658)$ |  |

## Projected Unfunded Liability - Police

1. Actual Unfunded Liability as of $10 / 01 / 2023$ \$ $(230,480)$
2. Total Normal Cost FY2024 128,235
3. Expected District and Employee Contributions FY2024 83,656
4. Expected Expenses FY2024 7,301
5. Interest $(8,740)$
6. Projected Unfunded Liability as of $10 / 01 / 2024$ (187,340)
(\$ in Thousands)

## Experience Gain/(Loss) and Projection of Unfunded Liability - Fire

 The experience gain/(loss) from October 1, 2022 to October 1, 2023 and projection of the unfunded actuarial liability from October 1, 2023 to October 1, 2024, the beginning of the fiscal year, is shown below. Please see Appendix 5 for a detailed breakdown of gain/(loss) sources.| Experience Gain/(Loss) - Fire | 10/1/2023 |  |
| :---: | :---: | :---: |
| 1. Unfunded Liability as of 10/01/2022 | \$ | $(399,267)$ |
| 2. Total FY2023 Normal Cost |  | 63,846 |
| 3. Actual FY2023 Expenses |  | 4,581 |
| 4. Total FY2023 Actual Contributions |  | 39,083 |
| 5. Interest |  | $(22,026)$ |
| 6. Expected Unfunded Liability as of $10 / 01 / 2023$ |  | $(391,950)$ |
| 7. Change due to Plan Amendments |  | 0 |
| 8. Change due to Assumptions and/or Methods |  | 0 |
| 9. Expected Unfunded Liability as of 10/01/2023 |  | $(391,950)$ |
| 10. Actual Unfunded Liability as of 10/01/2023 |  | $(274,950)$ |
| 11. Gain/(Loss) |  | $(116,999)$ |
| Projected Unfunded Liability - Fire |  |  |
| 1. Actual Unfunded Liability as of 10/01/2023 | \$ | $(274,950)$ |
| 2. Total Normal Cost FY2024 |  | 70,379 |
| 3. Expected District and Employee Contributions FY2024 |  | 38,578 |
| 4. Expected Expenses FY2024 |  | 3,957 |
| 5. Interest |  | $(13,851)$ |
| 6. Projected Unfunded Liability as of 10/01/2024 | \$ | $(253,044)$ |

(\$ in Thousands)

## Development of District Contributions - Teachers

The breakdown of the Actuarially Determined Contribution into normal cost, amortization payment, expected administrative expenses, and D.C. Code §1-907.02(c) Adjustment is illustrated below. The calculation of the D.C. Code §1-907.02(c) Adjustment is detailed in Appendix 4.

| Teachers Actuarially Determined Contribution (ADC) | FY2025 |  | Percentage of FY2025 Payroll |  |
| :---: | :---: | :---: | :---: | :---: |
| 1. Total Normal Cost as of October 1, 2023 | \$ | 96,040 |  | N/A |
| 2. Projected Total Normal Cost as of October 1, 2024 (1. x 1.04) |  | 99,895 |  | 13.72\% |
| 3. Expected Member Contributions |  | 57,520 |  | 7.90\% |
| 4. Employer Normal Cost (2. -3.) |  | 42,375 |  | 5.82\% |
| 5. Expenses |  | 8,737 |  | 1.20\% |
| 6. Amortization Payment |  | 24,247 |  | 3.33\% |
| 7. Actuarially Determined Contribution (ADC) (4. +5.+6.) |  | 75,360 |  | 10.35\% |
| 8. D.C. Code §1-907.02(c) Adjustment to FY2025 Payment |  | 5,621 |  | N/A |
| 9. Fiscal Year District Payment | \$ | 80,981 |  | N/A |
|  |  |  |  |  |
| Projected Payroll |  |  |  |  |
| 1. Active Member June 30, 2023 Payroll |  |  | \$ | 661,828 |
| 2. Expected FY2024 Payroll (1. increased with one year of salary scale) |  |  |  | 700,092 |
| 3. Projected FY2025 Payroll (2. x 1.04) |  |  | \$ | 728,095 |

(\$ in Thousands)

## Development of District Contributions - Police and Fire

The breakdown of the Actuarially Determined Contribution into normal cost, amortization payment, expected administrative expenses, and D.C. Code §1-907.02(c) Adjustment is illustrated below. The calculation of the D.C. Code §1-907.02(c) Adjustment is detailed in Appendix 4.

| Police and Fire <br> Actuarially Determined Contribution (ADC) | FY2025 |  | Percentage of FY2025 Payroll |  |
| :---: | :---: | :---: | :---: | :---: |
| 1. Total Normal Cost as of October 1, 2023 | \$ | 198,614 |  | N/A |
| 2. Projected Total Normal Cost as of October 1, 2024 (1. x 1.04) |  | 206,540 |  | 37.82\% |
| 3. Expected Member Contributions |  | 43,152 |  | 7.90\% |
| 4. Employer Normal Cost (2. - 3.) |  | 163,387 |  | 29.92\% |
| 5. Expenses |  | 11,470 |  | 2.10\% |
| 6. Amortization Payment |  | $(31,873)$ |  | (5.84\%) |
| 7. Actuarially Determined Contribution (ADC) (4. + 5. + 6.) |  | 142,986 |  | 26.18\% |
| 8. D.C. Code §1-907.02(c) Adjustment to FY2025 Payment |  | 468 |  | N/A |
| 9. Fiscal Year District Payment | \$ | 143,454 |  | N/A |
|  |  |  |  |  |
| Projected Payroll |  |  |  |  |
| 1. Active Member June 30, 2023 Payroll |  |  | \$ | 495,009 |
| 2. Expected FY2024 Payroll (1. increased with one year of salary scale) |  |  |  | 525,218 |
| 3. Projected FY2025 Payroll (2. $\times 1.04$ ) |  |  | \$ | 546,226 |

(\$ in Thousands)

## Development of District Contributions - Police

The breakdown of the Actuarially Determined Contribution into normal cost, amortization payment, expected administrative expenses, and D.C. Code §1-907.02(c) Adjustment is illustrated below. The calculation of the D.C. Code §1-907.02(c) Adjustment is detailed in Appendix 4.

| Police <br> Actuarially Determined Contribution (ADC) | FY2025 |  | Percentage of FY2025 Payroll |  |
| :---: | :---: | :---: | :---: | :---: |
| 1. Total Normal Cost as of October 1, 2023 | \$ | 128,235 |  | N/A |
| 2. Projected Total Normal Cost as of October 1, 2024 (1. x 1.04) |  | 133,351 |  | 37.98\% |
| 3. Expected Member Contributions |  | 27,738 |  | 7.90\% |
| 4. Employer Normal Cost (2. - 3.) |  | 105,613 |  | 30.08\% |
| 5. Expenses |  | 7,373 |  | 2.10\% |
| 6. Amortization Payment |  | $(13,559)$ |  | (3.86\%) |
| 7. Actuarially Determined Contribution (ADC) (4. + 5. + 6.) |  | 99,428 |  | 28.32\% |
| 8. D.C. Code §1-907.02(c) Adjustment to FY2025 Payment |  | 173 |  | N/A |
| 9. Fiscal Year District Payment | \$ | 99,601 |  | N/A |
| Projected Payroll |  |  |  |  |
| 1. Active Member June 30, 2023 Payroll |  |  | \$ | 317,268 |
| 2. Expected FY2024 Payroll (1. increased with one year of salary scale) |  |  |  | 337,604 |
| 3. Projected FY2025 Payroll (2. $\times 1.04$ ) |  |  | \$ | 351,108 |

(\$ in Thousands)

## Development of District Contributions - Fire

The breakdown of the Actuarially Determined Contribution into normal cost, amortization payment, expected administrative expenses, and D.C. Code §1-907.02(c) Adjustment is illustrated below. The calculation of the D.C. Code §1-907.02(c) Adjustment is detailed in Appendix 4.

| Fire <br> Actuarially Determined Contribution (ADC) | FY2025 |  | Percentage of FY2025 Payroll |  |
| :---: | :---: | :---: | :---: | :---: |
| 1. Total Normal Cost as of October 1, 2023 | \$ | 70,379 |  | N/A |
| 2. Projected Total Normal Cost as of October 1, 2024 (1. x 1.04) |  | 73,189 |  | 37.51\% |
| 3. Expected Member Contributions |  | 15,414 |  | 7.90\% |
| 4. Employer Normal Cost (2. - 3.) |  | 57,774 |  | 29.61\% |
| 5. Expenses |  | 4,097 |  | 2.10\% |
| 6. Amortization Payment |  | $(18,314)$ |  | (9.39\%) |
| 7. Actuarially Determined Contribution (ADC) (4. + 5. + 6.) |  | 43,558 |  | 22.32\% |
| 8. D.C. Code §1-907.02(c) Adjustment to FY2025 Payment |  | 295 |  | N/A |
| 9. Fiscal Year District Payment | \$ | 43,853 |  | N/A |
| Projected Payroll |  |  |  |  |
| 1. Active Member June 30, 2023 Payroll |  |  | \$ | 177,741 |
| 2. Expected FY2024 Payroll (1. increased with one year of salary scale) |  |  |  | 187,614 |
| 3. Projected FY2025 Payroll (2. $\times 1.04$ ) |  |  | \$ | 195,118 |

(\$ in Thousands)

## Schedule of Amortization Bases

Below is a schedule of the amortization bases as of October 1, 2024.

| Teachers <br> Description | Date <br> Established | Remaining <br> Years | Amount to be <br> Amortized | Payment / <br> (Credit) |  |
| :--- | :---: | :---: | ---: | ---: | ---: |
| Actuarial (Gain)/Loss | $10 / 1 / 2023$ | 19 |  | 33,447 | 2,965 |
| Actuarial (Gain)/Loss | $10 / 1 / 2024$ | 20 |  | 246,591 | 21,282 |
| Totals |  |  | $\mathbf{\$}$ | $\mathbf{2 8 0 , 0 3 8}$ | $\mathbf{\$}$ |


| Police | Date <br> Established <br> Description | Remaining <br> Years | Amount to be <br> Amortized | Payment $/$ <br> (Credit) |  |
| :--- | :---: | :---: | ---: | ---: | ---: |
| Surplus | $10 / 1 / 2024$ | 30 |  | $(187,340)$ | $(13,559)$ |
| Totals |  |  | $\$$ | $(\mathbf{1 8 7 , 3 4 0 )}$ | $\$$ |


| Fire | Date <br> Established | Remaining <br> Years | Amount to be <br> Amortized | Payment $/$ <br> (Credit) |  |
| :--- | :---: | :---: | ---: | ---: | ---: |
| Description | $10 / 1 / 2024$ | 30 |  | $(253,044)$ | $(18,314)$ |
| Surplus |  |  | $\$$ | $(253,044)$ | $\$$ |
| Totals |  |  | $(18,314)$ |  |  |

(\$ in Thousands)
Bases are amortized on a level dollar basis, assuming mid-year payments.
The unfunded liability at $10 / 1 / 2023$ is projected to $10 / 1 / 2024$ for the amortization of the surplus.

## Section IV. Valuation of Assets

## Reconciliation of Assets - Teachers

Below is a reconciliation of assets from October 1, 2021 through September 30, 2023. An adjustment has been included to account for the difference in market value of assets between the prior year's valuation report and the audited value.

| Teachers | FY2022 |  | FY2023 |  |
| :---: | :---: | :---: | :---: | :---: |
| 1. Beginning of Year Assets | \$ | 2,934,307,000 | \$ | 2,573,334,000 |
| 2. Adjustments |  | 10,577,000 |  | $(409,000)$ |
| 3. Beginning of Year Assets after Adjustments |  | 2,944,884,000 |  | 2,572,925,000 |
| 4. Receipts |  |  |  |  |
| a. Employer Contributions |  | 75,060,000 |  | 47,835,000 |
| b. Employee Contributions |  | 46,914,000 |  | 58,691,438 |
| c. Net Investment Income |  | $(388,520,000)$ |  | 317,037,084 |
| d. Total Receipts | \$ | $(266,546,000)$ | \$ | 423,563,522 |
| 5. Deductions |  |  |  |  |
| a. Benefit Payments | \$ | $(95,352,000)$ | \$ | $(101,598,605)$ |
| b. Refunds |  | $(5,236,000)$ |  | $(5,689,368)$ |
| c. Administrative Expenses |  | $(4,416,000)$ |  | $(4,880,104)$ |
| d. Total Deductions | \$ | $(105,004,000)$ | \$ | $(112,168,077)$ |
| 6. Net Increase |  | $(371,550,000)$ |  | 311,395,445 |
| 7. End of Year Assets | \$ | 2,573,334,000 | \$ | 2,884,320,445 |
| 8. Rate of Return |  | -13.16\% |  | 12.34\% |

( $2 \times 4 . c$. ) / (1. + 7. - 4.c. $)$

## Reconciliation of Assets - Police and Fire

Below is a reconciliation of assets from October 1, 2021 through September 30, 2023. An adjustment has been included to account for the difference in market value of assets between the prior year's valuation report and the audited value.

| Police and Fire | FY2022 |  | FY2023 |  |
| :---: | :---: | :---: | :---: | :---: |
| 1. Beginning of Year Assets | \$ | 7,963,277,000 | \$ | 6,901,545,000 |
| 2. Adjustments |  | 28,717,000 |  | $(1,100,000)$ |
| 3. Beginning of Year Assets after Adjustments |  | 7,991,994,000 |  | 6,900,445,000 |
| 4. Receipts |  |  |  |  |
| a. Employer Contributions | \$ | 108,965,000 | \$ | 77,508,000 |
| b. Employee Contributions |  | 36,997,000 |  | 44,249,129 |
| c. Net Investment Income |  | $(1,042,397,000)$ |  | 857,808,203 |
| d. Total Receipts | \$ | $(896,435,000)$ | \$ | 979,565,332 |
| 5. Deductions |  |  |  |  |
| a. Benefit Payments | \$ | $(179,984,000)$ | \$ | $(209,584,923)$ |
| b. Refunds |  | $(2,177,000)$ |  | $(2,149,216)$ |
| c. Administrative Expenses |  | $(11,853,000)$ |  | $(14,516,078)$ |
| d. Total Deductions | \$ | $(194,014,000)$ | \$ | $(226,250,217)$ |
| 6. Net Increase |  | $(1,090,449,000)$ |  | 753,315,115 |
| 7. End of Year Assets | \$ | 6,901,545,000 | \$ | 7,653,760,115 |
| 8. Rate of Return |  | -13.08\% |  | 12.53\% |

$(2 \times 4 . c) /.(1 .+7 .-4 . c$. $)$

## Reconciliation of Assets - Police

Below is a reconciliation of assets from October 1, 2021 through September 30, 2023. An adjustment has been included to account for the difference in market value of assets between the prior year's valuation report and the audited value.

| Police | FY2022 |  | FY2023 |  |
| :---: | :---: | :---: | :---: | :---: |
| 1. Beginning of Year Assets | \$ | 5,478,977,416 | \$ | 4,733,562,435 |
| 2. Adjustments |  | 19,758,172 |  | $(754,457)$ |
| 3. Beginning of Year Assets after Adjustments |  | 5,498,735,588 |  | 4,732,807,978 |
| 4. Receipts |  |  |  |  |
| a. Employer Contributions | \$ | 68,034,000 | \$ | 53,909,000 |
| b. Employee Contributions |  | 24,184,939 |  | 28,764,840 |
| c. Net Investment Income |  | $(716,157,306)$ |  | 587,698,026 |
| d. Total Receipts | \$ | $(623,938,367)$ | \$ | 670,371,866 |
| 5. Deductions |  |  |  |  |
| a. Benefit Payments | \$ | $(131,514,309)$ | \$ | $(153,164,662)$ |
| b. Refunds |  | $(1,590,734)$ |  | $(1,570,647)$ |
| c. Administrative Expenses |  | $(8,129,743)$ |  | $(9,935,400)$ |
| d. Total Deductions | \$ | $(141,234,786)$ | \$ | $(164,670,709)$ |
| 6. Net Increase |  | $(765,173,153)$ |  | 505,701,157 |
| 7. End of Year Assets | \$ | 4,733,562,435 | \$ | 5,238,509,135 |
| 8. Rate of Return $(2 \times 4 . c .) /(1 .+7 .-4 . c .)$ |  | -13.08\% |  | 12.53\% |

## Reconciliation of Assets - Fire

Below is a reconciliation of assets from October 1, 2021 through September 30, 2023. An adjustment has been included to account for the difference in market value of assets between the prior year's valuation report and the audited value.

| Fire | FY2022 |  | FY2023 |  |
| :---: | :---: | :---: | :---: | :---: |
| 1. Beginning of Year Assets | \$ | 2,484,299,584 | \$ | 2,167,982,565 |
| 2. Adjustments |  | 8,958,828 |  | $(345,543)$ |
| 3. Beginning of Year Assets after Adjustments |  | 2,493,258,412 |  | 2,167,637,022 |
| 4. Receipts |  |  |  |  |
| a. Employer Contributions | \$ | 40,931,000 | \$ | 23,599,000 |
| b. Employee Contributions |  | 12,812,061 |  | 15,484,289 |
| c. Net Investment Income |  | $(326,239,694)$ |  | 270,110,177 |
| d. Total Receipts | \$ | $(272,496,633)$ | \$ | 309,193,466 |
| 5. Deductions |  |  |  |  |
| a. Benefit Payments | \$ | $(48,469,691)$ | \$ | $(56,420,261)$ |
| b. Refunds |  | $(586,266)$ |  | $(578,569)$ |
| c. Administrative Expenses |  | $(3,723,257)$ |  | $(4,580,678)$ |
| d. Total Deductions | \$ | $(52,779,214)$ | \$ | $(61,579,508)$ |
| 6. Net Increase |  | $(325,275,847)$ |  | 247,613,958 |
| 7. End of Year Assets | \$ | 2,167,982,565 | \$ | 2,415,250,980 |
| 8. Rate of Return $(2 \times 4 . c .) /(1 .+7 .-4 . c .)$ |  | -13.08\% |  | 12.53\% |

## Calculation of Actuarial Value of Assets - Teachers

The actuarial asset value as of October 1, 2023 is determined by spreading the asset gain or loss for each year over a five-year period. The asset gain or loss is the amount by which the actual asset return differs from the expected asset return.

| Teachers |  | 10/1/2023 |  |
| :---: | :---: | :---: | :---: |
| 1. Market Value of Assets at End of Year |  | \$ | 2,884,320,445 |
| 2. Net investment income |  |  | 317,037,084 |
| 3. Expected Return Rate as of 09/30/2023 |  |  | 6.25\% |
| 4. Expected investment income |  |  | 160,631,511 |
| 5. Gain/(Loss) |  |  | 156,405,573 |
| Spreading of investment gain/(loss) |  |  |  |
| Year Original or restructured base | \% Deferred | Deferred |  |
| FY2023 \$ 156,405,573 | 80\% | \$ | 125,124,458 |
| FY2022 (573,105,563) | 60\% |  | $(343,863,338)$ |
| FY2021 346,333,033 | 40\% |  | 138,533,213 |
| FY2020 (7,610,383) | 20\% |  | $(1,522,077)$ |
| FY2019 $(55,652,385)$ | 0\% |  |  |
| Total deferred |  |  | $(81,727,744)$ |
| 6. Preliminary Actuarial Value of Assets |  | \$ | 2,966,048,189 |
| 7. Lower Corridor |  |  | 2,307,456,356 |
| 8. Upper Corridor |  |  | 3,461,184,534 |
| 9. Final Actuarial Value of Assets |  |  | 2,966,048,189 |
| Rate of Return |  |  | 4.71\% |

## Calculation of Actuarial Value of Assets - Police and Fire

The actuarial asset value as of October 1, 2023 is determined by spreading the asset gain or loss for each year over a five-year period. The asset gain or loss is the amount by which the actual asset return differs from the expected asset return.


## Calculation of Actuarial Value of Assets - Police

The actuarial asset value as of October 1, 2023 is determined by spreading the asset gain or loss for each year over a five-year period. The asset gain or loss is the amount by which the actual asset return differs from the expected asset return.


## Calculation of Actuarial Value of Assets - Fire

The actuarial asset value as of October 1, 2023 is determined by spreading the asset gain or loss for each year over a five-year period. The asset gain or loss is the amount by which the actual asset return differs from the expected asset return.

| Fire |  | 10/1/2023 |  |
| :---: | :---: | :---: | :---: |
| 1. Market Value of Assets at End of Year |  | \$ | 2,415,250,980 |
| 2. Net investment income |  |  | 270,110,177 |
| 3. Expected Return Rate as of 09/30/2023 |  |  | 6.25\% |
| 4. Expected investment income |  |  | 134,774,307 |
| 5. Gain/(Loss) |  |  | 135,335,870 |
| Spreading of investment gain/(loss) |  |  |  |
| Year Original or restructured base | \% Deferred |  | eferred |
| FY2023 \$ 135,335,870 | 80\% | \$ | 108,268,696 |
| FY2022 (482,098,465) | 60\% |  | (289,259,079) |
| FY2021 290,668,291 | 40\% |  | 116,267,316 |
| FY2020 (6,835,525) | 20\% |  | $(1,367,105)$ |
| FY2019 (47,358,172) | 0\% |  | - |
| Total deferred (66,090,172) |  |  |  |

6. Preliminary Actuarial Value of Assets \$ 2,481,341,152
7. Lower Corridor

1,932,200,784
8. Upper Corridor

2,898,301,176
9. Final Actuarial Value of Assets

2,481,341,152

Rate of Return 4.72\%

## Section V. Participant Information

## Participant Summary

The following table summarizes the counts, ages and benefit information for Plan participants used in this valuation.

|  |  | Teachers |  | Police Officers |  | Firefighters |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Active |  |  |  |  |  |  |  |  |
| a. Number |  | 6,171 |  | 3,146 |  | 1,887 |  | 11,204 |
| b. Average Age |  | 41.9 |  | 40.1 |  | 39.6 |  | 41.0 |
| c. Average Service |  | 8.9 |  | 12.9 |  | 13.1 |  | 10.7 |
| d. Average Salary | \$ | 113,449 | \$ | 107,312 | \$ | 99,424 | \$ | 109,364 |
| 2. Vested Terminations |  |  |  |  |  |  |  |  |
| a. Number |  | 1,844 |  | 260 |  | 91 |  | 2,195 |
| b. Average Age |  | 49.1 |  | 43.5 |  | 43.7 |  | 48.2 |
| c. Total Annual Benefits | \$ | 27,622,850 | \$ | 4,427,318 | \$ | 1,466,540 | \$ | 33,516,708 |
| 3. Service Retired, Disabled and Beneficiaries (Receiving District Benefits) |  |  |  |  |  |  |  |  |
| a. Number |  | 4,066 |  | 3,405 |  | 1,180 |  | 8,651 |
| b. Average Age |  | 75.2 |  | 61.4 |  | 62.6 |  | 68.0 |
| c. Total Annual Benefits | \$ | 104,191,669 | \$ | 158,468,842 | \$ | 58,582,725 | \$ | 321,243,236 |

The following table summarizes all retiree member data and is provided for informational purposes only. The benefits are the total benefits for all members who were employed by the District and include both those that are the District's responsibility and those that are the responsibility of the U.S. Department of the Treasury. The liabilities for benefits that are the responsibility of the U.S. Department of the Treasury are not included in this actuarial valuation.

## Teachers <br> Police <br> Officers

Service Retired, Disabled and Beneficiaries (Receiving District and/or Federal Benefits)

| a.Number | 5,331 | 6,523 | 2,107 | 13,961 |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| b. | Average Age | 78.0 | 69.5 | 70.9 | 72.9 |  |
| c. | Total Annual Benefits | $\mathbf{\$}$ | $\mathbf{2 9 2 , 1 2 9 , 3 2 0}$ | $\mathbf{\$}$ | $\mathbf{4 2 8 , 0 1 8 , 8 4 6}$ | $\mathbf{\$}$ |
| $\mathbf{1 5 4 , 8 6 1 , 5 1 4}$ | $\mathbf{\$}$ | $\mathbf{8 7 5 , 0 0 9 , 6 8 0}$ |  |  |  |  |

## Active Age/Service Distribution Including Compensation - Teachers

Shown below is the distribution of active participants based on age and service. The compensation shown is the average of estimated FY2024 pay (pay rate provided as of June 30, 2023 increased with salary scale for one year).

| Age | Under <br> 1 | Years of Service as of 10/01/2023 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | $\begin{gathered} 40 \& \\ \text { Up } \end{gathered}$ | Total |
| Under 25 | 11 | 94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 105 |
|  | 68,015 | 69,053 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 68,944 |
| 25-29 | 27 | 444 | 103 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 577 |
|  | 74,553 | 77,241 | 92,303 | 75,911 | 0 | 0 | 0 | 0 | 0 | 0 | 79,797 |
| 30-34 | 25 | 442 | 468 | 108 | 5 | 0 | 0 | 0 | 0 | 0 | 1,048 |
|  | 85,193 | 93,730 | 106,001 | 115,025 | 86,927 | 0 | 0 | 0 | 0 | 0 | 101,168 |
| 35-39 | 28 | 325 | 509 | 312 | 51 | 1 | 0 | 0 | 0 | 0 | 1,226 |
|  | 91,680 | 103,533 | 116,988 | 125,195 | 131,471 | 111,807 | 0 | 0 | 0 | 0 | 115,530 |
| 40-44 | 16 | 243 | 370 | 274 | 130 | 24 | 0 | 0 | 0 | 0 | 1057 |
|  | 92,187 | 106,004 | 125,160 | 128,648 | 129,191 | 143,033 | 0 | 0 | 0 | 0 | 122,063 |
| 45-49 | 16 | 128 | 257 | 178 | 98 | 95 | 11 | 0 | 0 | 0 | 783 |
|  | 92,183 | 105,569 | 127,211 | 133,391 | 132,240 | 135,147 | 138,667 | 0 | 0 | 0 | 126,116 |
| 50-54 | 11 | 101 | 156 | 121 | 65 | 107 | 80 | 7 | 0 | 0 | 648 |
|  | 95,882 | 108,468 | 122,526 | 127,901 | 124,649 | 132,944 | 133,739 | 138,536 | 0 | 0 | 124,377 |
| 55-59 | 5 | 59 | 85 | 60 | 41 | 43 | 37 | 28 | 10 | 0 | 368 |
|  | 104,986 | 104,644 | 124,812 | 131,254 | 124,160 | 129,978 | 133,913 | 138,835 | 131,965 | 0 | 125,067 |
| 60-64 | 0 | 34 | 26 | 31 | 28 | 29 | 34 | 8 | 14 | 0 | 204 |
|  | 0 | 104,342 | 119,384 | 123,958 | 130,785 | 130,243 | 126,298 | 135,121 | 138,909 | 0 | 123,790 |
| 65-69 | 0 | 11 | 21 | 16 | 19 | 8 | 13 | 14 | 12 | 5 | 119 |
|  | 0 | 96,165 | 117,810 | 126,163 | 127,017 | 137,718 | 122,911 | 144,908 | 137,731 | 126,980 | 125,880 |
| 70 \& Up | 0 | 4 | 4 | 5 | 2 | 6 | 4 | 4 | 6 | 1 | 36 |
|  | 0 | 105,048 | 116,943 | 118,977 | 120,375 | 128,341 | 119,932 | 161,851 | 127,697 | 136,243 | 125,645 |
| Totals | 139 | 1,885 | 1,999 | 1,108 | 439 | 313 | 179 | 61 | 42 | 6 | 6,171 |
|  | 86,241 | 94,053 | 116,775 | 126,816 | 128,480 | 133,695 | 131,570 | 141,217 | 135,317 | 128,524 | 113,449 |


| Averages |  |
| :---: | ---: |
| Age | 41.9 |
| Service | 8.9 |

## Active Age/Service Distribution Including Compensation - Police

Shown below is the distribution of active participants based on age and service. The compensation shown is the average of estimated FY2024 pay (pay rate provided as of June 30, 2023 increased with salary scale for one year).

| Age | Under 1 | Years of Service as of 10/01/2023 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | $\begin{gathered} 40 \& \\ \text { Up } \end{gathered}$ | Total |
| Under 25 | 18 | 80 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 101 |
|  | 72,330 | 76,771 | 82,418 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 76,147 |
| 25-29 | 32 | 252 | 156 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 442 |
|  | 73,152 | 81,433 | 90,693 | 98,381 | 0 | 0 | 0 | 0 | 0 | 0 | 84,178 |
| 30-34 | 10 | 120 | 318 | 77 | 1 | 0 | 0 | 0 | 0 | 0 | 526 |
|  | 72,330 | 82,677 | 96,185 | 104,574 | 73,575 | 0 | 0 | 0 | 0 | 0 | 93,835 |
| 35-39 | 9 | 53 | 154 | 217 | 102 | 0 | 0 | 0 | 0 | 0 | 535 |
|  | 72,330 | 82,029 | 96,606 | 107,213 | 116,312 | 0 | 0 | 0 | 0 | 0 | 102,813 |
| 40-44 | 5 | 20 | 55 | 98 | 318 | 51 | 0 | 0 | 0 | 0 | 547 |
|  | 77,246 | 85,046 | 98,529 | 109,022 | 119,859 | 129,597 | 0 | 0 | 0 | 0 | 115,018 |
| 45-49 | 3 | 7 | 29 | 22 | 123 | 203 | 44 | 0 | 0 | 0 | 431 |
|  | 72,330 | 90,143 | 96,336 | 108,215 | 118,866 | 127,876 | 148,626 | 0 | 0 | 0 | 123,298 |
| 50-54 | 0 | 4 | 11 | 19 | 86 | 146 | 70 | 11 | 0 | 0 | 347 |
|  | 0 | 79,037 | 96,452 | 116,628 | 116,846 | 126,992 | 149,443 | 146,545 | 0 | 0 | 127,538 |
| 55-59 | 1 | 3 | 5 | 2 | 44 | 65 | 21 | 28 | 2 | 0 | 171 |
|  | 72,330 | 139,302 | 95,661 | 101,208 | 118,030 | 124,017 | 145,901 | 156,829 | 164,393 | 0 | 129,879 |
| 60-64 | 0 | 0 | 0 | 5 | 8 | 19 | 2 | 7 | 4 | 1 | 46 |
|  | 0 | 0 | 0 | 106,841 | 115,983 | 122,976 | 159,004 | 141,417 | 144,772 | 137,266 | 126,584 |
| 65-69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 70 \& Up | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Totals | 78 | 539 | 731 | 442 | 682 | 484 | 137 | 46 | 6 | 1 | 3,146 |
|  | 72,983 | 81,628 | 95,228 | 107,538 | 118,538 | 127,080 | 148,777 | 152,025 | 151,313 | 137,266 | 107,312 |


| Averages |  |
| :---: | :---: |
| Age | 40.1 |
| Service | 12.9 |

## Active Age/Service Distribution Including Compensation - Fire

Shown below is the distribution of active participants based on age and service. The compensation shown is the average of estimated FY2024 pay (pay rate provided as of June 30, 2023 increased with salary scale for one year).

| Age | Under 1 | Years of Service as of 10/01/2023 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | $\begin{gathered} 40 \& \\ U p \end{gathered}$ | Total |
| Under 25 | 26 | 57 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85 |
|  | 65,269 | 67,380 | 64,727 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66,672 |
| 25-29 | 36 | 124 | 98 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 277 |
|  | 65,553 | 72,897 | 81,218 | 85,193 | 0 | 0 | 0 | 0 | 0 | 0 | 75,730 |
| 30-34 | 13 | 113 | 125 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 288 |
|  | 66,220 | 73,085 | 82,890 | 91,726 | 0 | 0 | 0 | 0 | 0 | 0 | 79,426 |
| 35-39 | 7 | 48 | 71 | 78 | 161 | 3 | 0 | 0 | 0 | 0 | 368 |
|  | 67,517 | 72,216 | 84,842 | 99,228 | 108,357 | 136,396 | 0 | 0 | 0 | 0 | 96,623 |
| 40-44 | 0 | 21 | 22 | 51 | 202 | 15 | 1 | 0 | 0 | 0 | 312 |
|  | 0 | 72,460 | 87,731 | 104,827 | 112,887 | 116,451 | 162,110 | 0 | 0 | 0 | 107,403 |
| 45-49 | 0 | 2 | 5 | 12 | 115 | 96 | 20 | 4 | 0 | 0 | 254 |
|  | 0 | 77,827 | 86,474 | 96,818 | 111,183 | 127,691 | 139,828 | 151,396 | 0 | 0 | 118,883 |
| 50-54 | 0 | 2 | 4 | 3 | 26 | 113 | 26 | 20 | 0 | 0 | 194 |
|  | 0 | 82,964 | 103,193 | 90,711 | 119,832 | 121,262 | 129,398 | 153,929 | 0 | 0 | 124,289 |
| 55-59 | 0 | 1 | 2 | 0 | 7 | 26 | 32 | 12 | 1 | 0 | 81 |
|  | 0 | 116,284 | 95,409 | 0 | 162,393 | 114,671 | 130,786 | 166,741 | 249,563 | 0 | 134,085 |
| 60-64 | 0 | 0 | 1 | 0 | 0 | 4 | 8 | 5 | 7 | 1 | 26 |
|  | 0 | 0 | 177,184 | 0 | 0 | 157,565 | 118,553 | 135,246 | 150,411 | 142,021 | 139,500 |
| 65-69 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
|  | 0 | 0 | 0 | 0 | 0 | 119,610 | 0 | 111,604 | 0 | 0 | 115,607 |
| 70 \& Up | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Totals | 82 | 368 | 330 | 200 | 511 | 258 | 87 | 42 | 8 | 1 | 1,887 |
|  | 65,736 | 72,186 | 83,688 | 97,662 | 112,108 | 123,443 | 131,685 | 154,116 | 162,805 | 142,021 | 99,424 |


| Averages |  |
| :---: | :---: |
| Age | 39.6 |
| Service | 13.1 |

## Participant Reconciliation - Teachers

Shown below is the reconciliation of participants between the prior and current valuation date.

|  |  | Inactive Participants |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Active <br> Pearticipants | Retirees | Disabled <br> Retirees | Beneficiaries | Vested <br> Terms | Total |
| Participants in Last Valuation | 6,088 | 3,762 | 102 | 201 | 1,718 | 11,871 |
| Death | $(7)$ | $(98)$ | $(8)$ | $(5)$ | 0 | $(118)$ |
| Disabled | 0 | 0 | 0 | 0 | 0 | 0 |
| Retired | $(61)$ | 94 | 0 | 0 | $(33)$ | 0 |
| Vested Termination | $(238)$ | 0 | 0 | 0 | 238 | 0 |
| Nonvested Termination | $(444)$ | 0 | 0 | 0 | 0 | $(444)$ |
| Return of Contributions/Benefits Ended | $(94)$ | $(3)$ | 0 | $(3)$ | $(41)$ | $(141)$ |
| New Actives | 874 | 0 | 0 | 0 | 0 | 874 |
| Rehire from Vested Term | 38 | 0 | 0 | 0 | $(38)$ | 0 |
| Rehire from Nonvested Term | 17 | 0 | 0 | 0 | 0 | 17 |
| New Beneficiaries | 0 | 0 | 0 | 18 | 0 | 18 |
| Data Adjustment | $(2)$ | 6 | 1 | $(1)$ | 0 | 4 |
| Participants in This Valuation | 6,171 | 3,761 | 95 | 210 | 1,844 | 12,081 |

In addition, there are 1,287 participants who are non-vested and due a refund of employee contributions.

## Participant Reconciliation - Police

Shown below is the reconciliation of participants between the prior and current valuation date.

|  |  | Inactive Participants |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Active <br> Police | Retirees | Disabled <br> Retirees | Beneficiaries | Vested <br> Terms | Total |  |
| Participants in Last Valuation | 3,282 | 2,478 | 335 | 438 | 258 | 6,791 |
| Death | $(3)$ | $(22)$ | $(2)$ | $(10)$ | 0 | $(37)$ |
| Disabled | $(9)$ | 0 | 12 | 0 | $(3)$ | 0 |
| Retired | $(129)$ | 152 | 0 | 0 | $(23)$ | 0 |
| Vested Termination | $(46)$ | 0 | 0 | 0 | 46 | 0 |
| Nonvested Termination | $(60)$ | 0 | 0 | 0 | 0 | $(60)$ |
| Return of Contributions/Benefits | $(35)$ | 0 | 0 | $(6)$ | $(16)$ | $(57)$ |
| Ended | 142 | 0 | 0 | 0 | 0 | 142 |
| New Actives | 2 | 0 | 0 | 0 | $(2)$ | 0 |
| Rehire from Vested Term | 2 | 0 | 0 | 0 | 0 | 2 |
| Rehire from Nonvested Term | 0 | 0 | 0 | 30 | 0 | 30 |
| New Beneficiaries | 0 | $(1)$ | 0 | 1 | 0 | 0 |
| Data Adjustment | 3,146 | 2,607 | 345 | 453 | 260 | 6,811 |
| Participants in This Valuation |  |  |  |  | 0 | 0 |

In addition, there are 181 participants who are non-vested and due a refund of employee contributions.

## Participant Reconciliation - Fire

Shown below is the reconciliation of participants between the prior and current valuation date.

| Fire | Active Participants | Inactive Participants |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Retirees | Disabled Retirees | Beneficiaries | Vested Terms |  |
| Participants in Last Valuation | 1,851 | 853 | 101 | 168 | 98 | 3,071 |
| Death | (2) | (10) | 0 | (3) | 0 | (15) |
| Disabled | (6) | 0 | 7 | 0 | (1) | 0 |
| Retired | (47) | 58 | 0 | 0 | (11) | 0 |
| Vested Termination | (11) | 0 | 0 | 0 | 11 | 0 |
| Nonvested Termination | (28) | 0 | 0 | 0 | 0 | (28) |
| Return of Contributions/Benefits Ended | (4) | (1) | (1) | (5) | (6) | (17) |
| New Actives | 134 | 0 | 0 | 0 | 0 | 134 |
| Rehire from Vested Term | 0 | 0 | 0 | 0 | 0 | 0 |
| Rehire from Nonvested Term | 0 | 0 | 0 | 0 | 0 | 0 |
| New Beneficiaries | 0 | 0 | 0 | 12 | 0 | 12 |
| Data Adjustment | 0 | 1 | 0 | 0 | 0 | 1 |
| Participants in This Valuation | 1,887 | 901 | 107 | 172 | 91 | 3,158 |

In addition, there are 91 participants who are non-vested and due a refund of employee contributions.

## Schedule of Retiree Member Data - Total Counts

The following table summarizes the total number of Service Retired, Disabled, and Beneficiary members included in the retiree member data. Only the retiree members receiving a benefit from the District are included in this valuation.

|  | (1) <br> Receiving Only District Benefits | (2) <br> Receiving Only Federal Benefits | (3) Receiving Both District and Federal Benefits | $(4)=(1)+(3)$ <br> Total <br> Receiving District Benefits | $(5)=(2)+(3)$ <br> Total <br> Receiving Federal Benefits | $\begin{gathered} (6)=(1)+(2) \\ +(3) \\ \text { Total } \\ \text { Receiving } \\ \text { Benefits } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Teachers | 627 | 1,265 | 3,439 | 4,066 | 4,704 | 5,331 |
| Police | 626 | 3,118 | 2,779 | 3,405 | 5,897 | 6,523 |
| Fire | 204 | 927 | 976 | 1,180 | 1,903 | 2,107 |
| Total | 1,457 | 5,310 | 7,194 | 8,651 | 12,504 | 13,961 |

## Schedule of Retiree Member Data - Teachers - Receiving District Benefits

Shown below is the schedule of retiree member data. The benefits are only those member benefits that are the District's responsibility.

| Attained Age | Service Retirement |  |  | Disability Retirement |  |  | Survivors and Beneficiaries |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  |
| Under 20 | - | \$ | - | - | \$ | - | 5 | \$ | 37,332 | 5 | \$ | 37,332 |
| 20 to 24 | - |  | - | - |  | - | 3 |  | 18,809 | 3 |  | 18,809 |
| 25 to 29 | - |  | - | - |  | - | - |  | - | - |  | - |
| 30 to 34 | - |  | - | - |  | - | - |  | - | - |  | - |
| 35 to 39 | - |  | - | - |  | - | - |  | - | - |  | - |
| 40 to 44 | - |  | - | - |  | - | 3 |  | 42,156 | 3 |  | 42,156 |
| 45 to 49 | - |  | - | - |  | - | 4 |  | 60,171 | 4 |  | 60,171 |
| 50 to 54 | 2 |  | 99,731 | 5 |  | 223,608 | 2 |  | 44,664 | 9 |  | 368,003 |
| 55 to 59 | 36 |  | 2,094,054 | 5 |  | 190,572 | 3 |  | 43,581 | 44 |  | 2,328,206 |
| 60 to 64 | 184 |  | 8,556,201 | 15 |  | 620,067 | 17 |  | 228,158 | 216 |  | 9,404,425 |
| 65 to 69 | 508 |  | 19,843,468 | 18 |  | 550,075 | 25 |  | 281,177 | 551 |  | 20,674,719 |
| 70 to 74 | 923 |  | 29,025,404 | 23 |  | 560,308 | 44 |  | 434,393 | 990 |  | 30,020,106 |
| 75 to 79 | 1,211 |  | 25,881,659 | 26 |  | 520,960 | 48 |  | 338,516 | 1,285 |  | 26,741,135 |
| 80 to 84 | 673 |  | 11,019,459 | 3 |  | 32,462 | 36 |  | 241,384 | 712 |  | 11,293,305 |
| 85 to 89 | 191 |  | 2,588,725 | - |  | - | 12 |  | 85,068 | 203 |  | 2,673,792 |
| 90 to 94 | 29 |  | 410,690 | - |  | - | 5 |  | 32,271 | 34 |  | 442,961 |
| 95 and over | 4 |  | 57,900 | - |  | - | 3 |  | 28,647 | 7 |  | 86,547 |
| Total | 3,761 | \$ | 99,577,291 | 95 | \$ | 2,698,052 | 210 | \$ | 1,916,326 | 4,066 | \$ | 104,191,669 |

Schedule of Retiree Member Data - Teachers - Receiving District and/or Federal Benefits
Shown below is the schedule of all retiree member data. The benefits are the total member benefits and include both those that are the District's responsibility and those that are the responsibility of the U.S. Department of the Treasury.

|  | Service Retirement |  |  | Disability Retirement |  |  | Survivors and Beneficiaries |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Attained Age | No. |  | ual Benefits | No. | Ann | Benefits | No. | Ann | Benefits | No. | Ann | ual Benefits |
| Under 20 | - | \$ | - | - | \$ | - | 5 | \$ | 37,332 | 5 | \$ | 37,332 |
| 20 to 24 | - |  | - | - |  | - | 3 |  | 25,836 | 3 |  | 25,836 |
| 25 to 29 | - |  | - | - |  | - | - |  | - | - |  | - |
| 30 to 34 | - |  | - | - |  | - | - |  | - | - |  | - |
| 35 to 39 | - |  | - | - |  | - | - |  | - | - |  | - |
| 40 to 44 | - |  | - | - |  | - | 3 |  | 42,156 | 3 |  | 42,156 |
| 45 to 49 | - |  | - | - |  | - | 4 |  | 78,276 | 4 |  | 78,276 |
| 50 to 54 | 2 |  | 110,520 | 5 |  | 223,608 | 5 |  | 74,244 | 12 |  | 408,372 |
| 55 to 59 | 36 |  | 2,586,156 | 5 |  | 190,572 | 5 |  | 68,988 | 46 |  | 2,845,716 |
| 60 to 64 | 185 |  | 10,788,552 | 19 |  | 807,024 | 21 |  | 403,776 | 225 |  | 11,999,352 |
| 65 to 69 | 511 |  | 28,039,008 | 21 |  | 829,188 | 28 |  | 609,720 | 560 |  | 29,477,916 |
| 70 to 74 | 933 |  | 53,862,804 | 27 |  | 1,108,752 | 52 |  | 1,242,276 | 1,012 |  | 56,213,832 |
| 75 to 79 | 1,285 |  | 75,708,576 | 55 |  | 2,068,980 | 79 |  | 1,880,304 | 1,419 |  | 79,657,860 |
| 80 to 84 | 878 |  | 51,842,352 | 28 |  | 982,200 | 88 |  | 2,169,828 | 994 |  | 54,994,380 |
| 85 to 89 | 512 |  | 30,302,964 | 24 |  | 894,168 | 51 |  | 1,372,584 | 587 |  | 32,569,716 |
| 90 to 94 | 261 |  | 14,805,408 | 12 |  | 450,408 | 52 |  | 1,422,144 | 325 |  | 16,677,960 |
| 95 and over | 113 |  | 6,368,088 | 4 |  | 181,032 | 19 |  | 551,496 | 136 |  | 7,100,616 |
| Total | 4,716 | \$ | 274,414,428 | 200 | \$ | 7,735,932 | 415 | \$ | 9,978,960 | 5,331 | \$ | 292,129,320 |

## Schedule of Retiree Member Data - Teachers - Receiving Federal

 BenefitsShown below is the schedule of retiree member data. The benefits are only those member benefits that are the responsbility of the U.S. Department of the Treasury.

|  | Service Retirement |  |  | Disability Retirement |  |  | Survivors and Beneficiaries |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Attained Age | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  |
| Under 20 | - | \$ | - | - | \$ | - | - | \$ | - | - | \$ | - |
| 20 to 24 | - |  | - | - |  | - | 2 |  | 7,027 | 2 |  | 7,027 |
| 25 to 29 | - |  | - | - |  | - | - |  | - | - |  | - |
| 30 to 34 | - |  | - | - |  | - | - |  | - | - |  | - |
| 35 to 39 | - |  | - | - |  | - | - |  | - | - |  | - |
| 40 to 44 | - |  | - | - |  | - | - |  | - | - |  | - |
| 45 to 49 | - |  | - | - |  | - | 2 |  | 18,105 | 2 |  | 18,105 |
| 50 to 54 | 2 |  | 10,789 | - |  | - | 3 |  | 29,580 | 5 |  | 40,369 |
| 55 to 59 | 32 |  | 492,102 | - |  | - | 3 |  | 25,407 | 35 |  | 517,510 |
| 60 to 64 | 140 |  | 2,232,351 | 10 |  | 186,957 | 16 |  | 175,618 | 166 |  | 2,594,927 |
| 65 to 69 | 364 |  | 8,195,540 | 17 |  | 279,113 | 20 |  | 328,543 | 401 |  | 8,803,197 |
| 70 to 74 | 762 |  | 24,837,400 | 23 |  | 548,444 | 44 |  | 807,883 | 829 |  | 26,193,726 |
| 75 to 79 | 1,166 |  | 49,826,917 | 53 |  | 1,548,020 | 71 |  | 1,541,788 | 1,290 |  | 52,916,725 |
| 80 to 84 | 831 |  | 40,822,893 | 28 |  | 949,738 | 82 |  | 1,928,444 | 941 |  | 43,701,075 |
| 85 to 89 | 505 |  | 27,714,239 | 24 |  | 894,168 | 46 |  | 1,287,516 | 575 |  | 29,895,924 |
| 90 to 94 | 259 |  | 14,394,718 | 12 |  | 450,408 | 52 |  | 1,389,873 | 323 |  | 16,234,999 |
| 95 and over | 113 |  | 6,310,188 | 4 |  | 181,032 | 18 |  | 522,849 | 135 |  | 7,014,069 |
| Total | 4,174 | \$ | 174,837,137 | 171 | \$ | 5,037,880 | 359 | \$ | 8,062,634 | 4,704 | \$ | 187,937,651 |

## Schedule of Retiree Member Data - Police - Receiving District Benefits

Shown below is the schedule of retiree member data. The benefits are only those member benefits that are the District's responsibility.

| Attained Age | Service Retirement |  |  | Disability Retirement |  |  | Survivors and Beneficiaries |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  |
| Under 20 | - | \$ | - | - | \$ | - | 34 | \$ | 393,763 | 34 | \$ | 393,763 |
| 20 to 24 | - |  | - | - |  | - | 6 |  | 47,604 | 6 |  | 47,604 |
| 25 to 29 | - |  | - | - |  | - | 1 |  | 18,400 | 1 |  | 18,400 |
| 30 to 34 | - |  | - | 10 |  | 414,264 | - |  | - | 10 |  | 414,264 |
| 35 to 39 | - |  | - | 10 |  | 369,852 | 2 |  | 92,385 | 12 |  | 462,237 |
| 40 to 44 | - |  | - | 14 |  | 591,672 | 4 |  | 108,480 | 18 |  | 700,152 |
| 45 to 49 | 34 |  | 2,427,605 | 23 |  | 962,400 | 13 |  | 354,280 | 70 |  | 3,744,285 |
| 50 to 54 | 318 |  | 23,947,589 | 58 |  | 2,624,636 | 52 |  | 1,296,776 | 428 |  | 27,869,001 |
| 55 to 59 | 792 |  | 51,675,777 | 97 |  | 3,402,110 | 67 |  | 1,665,116 | 956 |  | 56,743,002 |
| 60 to 64 | 662 |  | 36,860,244 | 65 |  | 1,953,605 | 73 |  | 1,445,921 | 800 |  | 40,259,769 |
| 65 to 69 | 404 |  | 15,813,944 | 47 |  | 1,221,771 | 75 |  | 1,258,056 | 526 |  | 18,293,771 |
| 70 to 74 | 279 |  | 5,810,755 | 16 |  | 178,165 | 71 |  | 1,275,464 | 366 |  | 7,264,384 |
| 75 to 79 | 103 |  | 1,066,340 | 4 |  | 84,378 | 48 |  | 746,576 | 155 |  | 1,897,294 |
| 80 to 84 | 15 |  | 186,021 | 1 |  | 19,452 | 6 |  | 152,926 | 22 |  | 358,399 |
| 85 to 89 | - |  | - | - |  | - | 1 |  | 2,515 | 1 |  | 2,515 |
| 90 to 94 | - |  | - | - |  | - | - |  | - | - |  | - |
| 95 and over | - |  | - | - |  | - | - |  | - | - |  | - |
| Total | 2,607 | \$ | 137,788,275 | 345 | \$ | 11,822,304 | 453 | \$ | 8,858,263 | 3,405 | \$ | 158,468,842 |

## Schedule of Retiree Member Data - Police - Receiving District and/or Federal Benefits

Shown below is the schedule of all retiree member data. The benefits are the total member benefits and include both those that are the District's responsibility and those that are the responsibility of the U.S. Department of the Treasury.

|  | Service Retirement |  |  | Disability Retirement |  |  | Survivors and Beneficiaries |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Attained Age | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  |
| Under 20 | - | \$ | - | - | \$ | - | 36 | \$ | 493,104 | 36 | \$ | 493,104 |
| 20 to 24 | - |  | - | - |  | - | 6 |  | 66,528 | 6 |  | 66,528 |
| 25 to 29 | - |  | - | - |  | - | 2 |  | 114,912 | 2 |  | 114,912 |
| 30 to 34 | - |  | - | 10 |  | 414,264 | 1 |  | 58,500 | 11 |  | 472,764 |
| 35 to 39 | - |  | - | 10 |  | 369,852 | 2 |  | 94,296 | 12 |  | 464,148 |
| 40 to 44 | - |  | - | 14 |  | 591,672 | 5 |  | 145,164 | 19 |  | 736,836 |
| 45 to 49 | 34 |  | 2,435,912 | 23 |  | 962,400 | 13 |  | 371,136 | 70 |  | 3,769,448 |
| 50 to 54 | 318 |  | 28,295,118 | 59 |  | 2,650,836 | 57 |  | 1,849,689 | 434 |  | 32,795,643 |
| 55 to 59 | 792 |  | 69,110,985 | 104 |  | 4,418,772 | 75 |  | 2,395,380 | 971 |  | 75,925,137 |
| 60 to 64 | 663 |  | 57,112,141 | 87 |  | 3,784,080 | 114 |  | 4,335,168 | 864 |  | 65,231,389 |
| 65 to 69 | 437 |  | 37,771,621 | 85 |  | 4,303,212 | 169 |  | 6,103,879 | 691 |  | 48,178,713 |
| 70 to 74 | 641 |  | 46,136,066 | 118 |  | 6,539,136 | 273 |  | 10,186,045 | 1,032 |  | 62,861,246 |
| 75 to 79 | 771 |  | 53,010,792 | 120 |  | 6,302,988 | 320 |  | 12,262,566 | 1,211 |  | 71,576,346 |
| 80 to 84 | 325 |  | 23,172,156 | 85 |  | 4,674,576 | 234 |  | 9,131,292 | 644 |  | 36,978,024 |
| 85 to 89 | 146 |  | 10,349,400 | 41 |  | 2,413,008 | 175 |  | 7,049,364 | 362 |  | 19,811,772 |
| 90 to 94 | 26 |  | 1,976,556 | 19 |  | 1,152,060 | 60 |  | 2,474,280 | 105 |  | 5,602,896 |
| 95 and | 6 |  | 768,564 | 8 |  | 580,740 | 39 |  | 1,590,636 | 53 |  | 2,939,940 |
| Total | 4,159 | \$ | 330,139,310 | 783 | \$ | 39,157,596 | 1,581 | \$ | 58,721,939 | 6,523 | \$ | 428,018,846 |

Schedule of Retiree Member Data - Police - Receiving Federal Benefits
Shown below is the schedule of retiree member data. The benefits are only those member benefits that are the responsbility of the U.S. Department of the Treasury.

|  | Service Retirement |  |  | Disability Retirement |  |  | Survivors and Beneficiaries |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Attained Age | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  |
| Under 20 | - | \$ | - | - | \$ | - | 15 | \$ | 99,341 | 15 | \$ | 99,341 |
| 20 to 24 | - |  | - | - |  | - | 4 |  | 18,924 | 4 |  | 18,924 |
| 25 to 29 | - |  | - | - |  | - | 2 |  | 96,512 | 2 |  | 96,512 |
| 30 to 34 | - |  | - | - |  | - | 1 |  | 58,500 | 1 |  | 58,500 |
| 35 to 39 | - |  | - | - |  | - | 1 |  | 1,911 | 1 |  | 1,911 |
| 40 to 44 | - |  | - | - |  | - | 1 |  | 36,684 | 1 |  | 36,684 |
| 45 to 49 | 7 |  | 8,307 | - |  | - | 1 |  | 16,856 | 8 |  | 25,163 |
| 50 to 54 | 265 |  | 4,347,529 | 2 |  | 26,200 | 27 |  | 541,766 | 295 |  | 4,926,642 |
| 55 to 59 | 727 |  | 17,435,208 | 77 |  | 1,016,662 | 28 |  | 730,264 | 832 |  | 19,182,135 |
| 60 to 64 | 626 |  | 20,251,897 | 85 |  | 1,830,475 | 78 |  | 2,874,162 | 790 |  | 24,971,619 |
| 65 to 69 | 417 |  | 21,957,677 | 78 |  | 3,081,441 | 131 |  | 4,886,975 | 627 |  | 29,939,578 |
| 70 to 74 | 633 |  | 40,325,311 | 117 |  | 6,360,971 | 232 |  | 8,910,581 | 982 |  | 55,596,862 |
| 75 to 79 | 770 |  | 51,944,452 | 119 |  | 6,218,610 | 290 |  | 11,515,990 | 1,179 |  | 69,679,052 |
| 80 to 84 | 325 |  | 22,986,135 | 85 |  | 4,655,124 | 230 |  | 8,978,366 | 640 |  | 36,619,625 |
| 85 to 89 | 146 |  | 10,349,400 | 41 |  | 2,413,008 | 175 |  | 7,046,849 | 362 |  | 19,809,257 |
| 90 to 94 | 26 |  | 1,976,556 | 19 |  | 1,152,060 | 60 |  | 2,474,280 | 105 |  | 5,602,896 |
| 95 and over | 6 |  | 768,564 | 8 |  | 580,740 | 39 |  | 1,590,636 | 53 |  | 2,939,940 |
| Total | 3,948 | \$ | 192,351,036 | 631 | \$ | 27,335,292 | 1,315 | \$ | 49,878,595 | 5,897 | \$ | 269,604,640 |

## Schedule of Retiree Member Data - Fire - Receiving District Benefits

Shown below is the schedule of retiree member data. The benefits are only those member benefits that are the District's responsibility.

|  | Service Retirement |  |  | Disability Retirement |  |  | Survivors and Beneficiaries |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Attained Age | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  |
| Under 20 | - | \$ | - | - | \$ | - | 12 | \$ | 142,092 | 12 | \$ | 142,092 |
| 20 to 24 | - |  | - | - |  | - | 4 |  | 247,571 | 4 |  | 247,571 |
| 25 to 29 | - |  | - | - |  | - | - |  | - | - |  | - |
| 30 to 34 | - |  | - | 1 |  | 28,440 | - |  | - | 1 |  | 28,440 |
| 35 to 39 | - |  | - | 7 |  | 231,852 | 3 |  | 74,374 | 10 |  | 306,226 |
| 40 to 44 | - |  | - | 10 |  | 405,012 | 2 |  | 58,200 | 12 |  | 463,212 |
| 45 to 49 | - |  | - | 10 |  | 446,112 | 3 |  | 55,416 | 13 |  | 501,528 |
| 50 to 54 | 114 |  | 8,718,297 | 20 |  | 1,084,380 | 16 |  | 497,960 | 150 |  | 10,300,637 |
| 55 to 59 | 170 |  | 12,383,934 | 15 |  | 459,271 | 24 |  | 598,258 | 209 |  | 13,441,463 |
| 60 to 64 | 233 |  | 14,149,317 | 9 |  | 365,167 | 29 |  | 868,084 | 271 |  | 15,382,568 |
| 65 to 69 | 225 |  | 11,305,700 | 16 |  | 372,837 | 29 |  | 860,064 | 270 |  | 12,538,601 |
| 70 to 74 | 106 |  | 2,977,714 | 18 |  | 304,942 | 26 |  | 613,348 | 150 |  | 3,896,004 |
| 75 to 79 | 45 |  | 796,485 | 1 |  | 1,617 | 15 |  | 265,664 | 61 |  | 1,063,766 |
| 80 to 84 | 8 |  | 89,294 | - |  | - | 6 |  | 117,699 | 14 |  | 206,993 |
| 85 to 89 | - |  | - | - |  | - | 3 |  | 63,624 | 3 |  | 63,624 |
| 90 to 94 | - |  | - | - |  | - | - |  | - | - |  | - |
| 95 and over | - |  | - | - |  | - | - |  | - | - |  | - |
| Total | 901 | \$ | 50,420,741 | 107 | \$ | 3,699,630 | 172 | \$ | 4,462,355 | 1,180 | \$ | 58,582,725 |

Schedule of Retiree Member Data - Fire - Receiving District and/or Federal Benefits
Shown below is the schedule of all retiree member data. The benefits are the total member benefits and include both those that are the District's responsibility and those that are the responsibility of the U.S. Department of the Treasury.

| Attained Age | Service Retirement |  |  | Disability Retirement |  |  | Survivors and Beneficiaries |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  |
| Under 20 | - | \$ | - | - | \$ | - | 12 | \$ | 144,000 | 12 | \$ | 144,000 |
| 20 to 24 | - |  | - | - |  | - | 4 |  | 354,552 | 4 |  | 354,552 |
| 25 to 29 | - |  | - | - |  | - | - |  | - | - |  | - |
| 30 to 34 | - |  | - | 1 |  | 28,440 | - |  | - | 1 |  | 28,440 |
| 35 to 39 | - |  | - | 7 |  | 231,852 | 3 |  | 103,308 | 10 |  | 335,160 |
| 40 to 44 | - |  | - | 10 |  | 405,012 | 2 |  | 58,200 | 12 |  | 463,212 |
| 45 to 49 | - |  | - | 10 |  | 446,112 | 4 |  | 90,384 | 14 |  | 536,496 |
| 50 to 54 | 114 |  | 10,663,526 | 20 |  | 1,084,380 | 16 |  | 574,956 | 150 |  | 12,322,862 |
| 55 to 59 | 170 |  | 15,652,018 | 15 |  | 532,740 | 25 |  | 753,000 | 210 |  | 16,937,758 |
| 60 to 64 | 233 |  | 21,482,801 | 12 |  | 582,516 | 36 |  | 1,288,332 | 281 |  | 23,353,649 |
| 65 to 69 | 226 |  | 22,462,956 | 26 |  | 1,455,576 | 47 |  | 1,965,384 | 299 |  | 25,883,916 |
| 70 to 74 | 138 |  | 12,647,520 | 41 |  | 2,632,752 | 64 |  | 2,497,752 | 243 |  | 17,778,024 |
| 75 to 79 | 165 |  | 14,346,396 | 35 |  | 2,180,232 | 97 |  | 3,776,574 | 297 |  | 20,303,202 |
| 80 to 84 | 154 |  | 12,912,036 | 51 |  | 3,587,424 | 119 |  | 4,633,720 | 324 |  | 21,133,180 |
| 85 to 89 | 67 |  | 5,563,404 | 18 |  | 1,047,048 | 67 |  | 2,649,744 | 152 |  | 9,260,196 |
| 90 to 94 | 24 |  | 2,239,764 | 14 |  | 906,000 | 37 |  | 1,627,632 | 75 |  | 4,773,396 |
| 95 and over | 1 |  | 64,596 | 2 |  | 126,408 | 20 |  | 1,062,468 | 23 |  | 1,253,472 |
| Total | 1,292 | \$ | 118,035,017 | 262 | \$ | 15,246,492 | 553 | \$ | 21,580,006 | 2,107 | \$ | 154,861,514 |

## Schedule of Retiree Member Data - Fire - Receiving Federal Benefits

Shown below is the schedule of retiree member data. The benefits are only those member benefits that are the responsbility of the U.S. Department of the Treasury.

| Attained Age | Service Retirement |  |  | Disability Retirement |  |  | Survivors and Beneficiaries |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  | No. | Annual Benefits |  |
| Under 20 | - | \$ | - | - | \$ | - | 2 | \$ | 1,908 | 2 | \$ | 1,908 |
| 20 to 24 | - |  | - | - |  | - | 3 |  | 106,981 | 3 |  | 106,981 |
| 25 to 29 | - |  | - | - |  | - | - |  | - | - |  | - |
| 30 to 34 | - |  | - | - |  | - | - |  | - | - |  | - |
| 35 to 39 | - |  | - | - |  | - | 2 |  | 28,934 | 2 |  | 28,934 |
| 40 to 44 | - |  | - | - |  | - | - |  | - | - |  | - |
| 45 to 49 | - |  | - | - |  | - | 1 |  | 34,968 | 1 |  | 34,968 |
| 50 to 54 | 108 |  | 1,945,229 | - |  | - | 6 |  | 76,996 | 114 |  | 2,022,225 |
| 55 to 59 | 161 |  | 3,268,084 | 10 |  | 73,469 | 8 |  | 154,742 | 179 |  | 3,496,295 |
| 60 to 64 | 226 |  | 7,333,484 | 11 |  | 217,349 | 16 |  | 420,248 | 253 |  | 7,971,080 |
| 65 to 69 | 213 |  | 11,157,256 | 26 |  | 1,082,739 | 30 |  | 1,047,745 | 270 |  | 13,345,315 |
| 70 to 74 | 135 |  | 9,669,806 | 40 |  | 2,327,810 | 49 |  | 1,884,404 | 224 |  | 13,882,020 |
| 75 to 79 | 165 |  | 13,549,911 | 35 |  | 2,178,615 | 89 |  | 3,510,910 | 289 |  | 19,239,436 |
| 80 to 84 | 154 |  | 12,822,742 | 51 |  | 3,587,424 | 114 |  | 4,516,021 | 319 |  | 20,926,187 |
| 85 to 89 | 67 |  | 5,563,404 | 18 |  | 1,047,048 | 64 |  | 2,586,120 | 149 |  | 9,196,572 |
| 90 to 94 | 24 |  | 2,239,764 | 14 |  | 906,000 | 37 |  | 1,627,632 | 75 |  | 4,773,396 |
| 95 and over | 1 |  | 64,596 | 2 |  | 126,408 | 20 |  | 1,062,468 | 23 |  | 1,253,472 |
| Total | 1,254 | \$ | 67,614,276 | 207 | \$ | 11,546,862 | 441 | \$ | 17,060,076 | 1,903 | \$ | 96,278,789 |

Schedule of Retiree Member Data - Added and Removed from Rolls - Receiving District Benefit
Shown below is the schedule of District retiree members added and removed.

| Fiscal Year Ended | Plan | Number | District Benefit (\$ in Thousands) |  |  |  |  |  |  | Rolls at End of Year |  |  | Percentage Increase in Annual Allowances | Average Annual Allowances |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual Allowances |  | Number | Annual Allowances |  | Increase due to Plan Amendments |  | Number | Annual Allowances |  |  |  |  |
| September 30, 2019 | Teachers | 141 | \$ | 4,693 | 72 | \$ | 1,278 | \$ | 1,890 | 4,059 | \$ | 81,840 | 6.9\% | \$ | 20 |
|  | Police | 233 |  | 12,244 | 27 |  | 569 |  | 1,492 | 2,799 |  | 96,643 | 15.8\% |  | 35 |
|  | Fire | 68 |  | 3,673 | 16 |  | 252 |  | 501 | 900 |  | 32,270 | 13.8\% |  | 36 |
| September 30, 2020 | Teachers | 98 | \$ | 3,471 | 86 | \$ | 1,767 | \$ | 1,824 | 4,071 | \$ | 85,368 | 4.3\% | \$ | 21 |
|  | Police | 188 |  | 10,010 | 35 |  | 757 |  | 2,835 | 2,952 |  | 108,731 | 12.5\% |  | 37 |
|  | Fire | 86 |  | 5,258 | 9 |  | 551 |  | 884 | 977 |  | 37,861 | 17.3\% |  | 39 |
| September 30, 2021 | Teachers | 96 | \$ | 3,642 | 95 | \$ | 1,524 | \$ | 1,124 | 4,072 | \$ | 88,610 | 3.8\% | \$ | 22 |
|  | Police | 201 |  | 11,821 | 58 |  | 1,173 |  | 1,192 | 3,095 |  | 120,571 | 10.9\% |  | 39 |
|  | Fire | 63 |  | 3,829 | 20 |  | 519 |  | 440 | 1,020 |  | 41,611 | 9.9\% |  | 41 |
| September 30, 2022 | Teachers | 111 | \$ | 3,945 | 118 | \$ | 2,060 | \$ | 6,191 | 4,065 | \$ | 96,686 | 9.1\% | \$ | 24 |
|  | Police | 199 |  | 11,329 | 43 |  | 866 |  | 7,842 | 3,251 |  | 138,876 | 15.2\% |  | 43 |
|  | Fire | 113 |  | 7,540 | 11 |  | 415 |  | 2,543 | 1,122 |  | 51,279 | 23.2\% |  | 46 |
| September 30, 2023 | Teachers | 119 | \$ | 4,128 | 118 | \$ | 2,116 | \$ | 5,494 | 4,066 | \$ | 104,192 | 7.8\% | \$ | 26 |
|  | Police | 195 |  | 12,206 | 41 |  | 1,071 |  | 8,457 | 3,405 |  | 158,469 | 14.1\% |  | 47 |
|  | Fire | 78 |  | 4,784 | 20 |  | 511 |  | 3,032 | 1,180 |  | 58,583 | 14.2\% |  | 50 |

Schedule of Retiree Member Data - Added and Removed from Rolls - Receiving Federal and/or District Benefit
Shown below is the schedule of Federal and/or District retiree members added and removed.

| Fiscal Year Ended | Plan | Federal Plus District Benefit (\$ in Thousands) |  |  |  |  |  |  |  |  |  |  | Percentage Increase in Annual Average Annual Allowances Allowances |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Added |  |  | Removed |  |  | Rolls at End of Year |  |  |  |  |  |  |  |
|  |  | Number | Annual Allowances |  | Number | Annual Allowances |  | Increase due to Plan Amendments |  | Number | Annual Allowances |  |  |  |  |
| September 30, 2019 | Teachers | 165 | \$ | 6,648 | 248 | \$ | 10,146 | \$ | 5,088 | 5,923 | A | 275,295 | 0.6\% | \$ | 46 |
|  | Police | 314 |  | 18,580 | 184 |  | 8,464 |  | 7,848 | 6,359 |  | 347,414 | 5.5\% |  | 55 |
|  | Fire | 98 |  | 5,985 | 90 |  | 4,425 |  | 3,306 | 2,045 |  | 124,700 | 4.1\% |  | 61 |
| September 30, 2020 | Teachers | 124 | \$ | 4,710 | 271 | \$ | 11,621 | \$ | 5,880 | 5,776 | \$ | 274,265 | -0.4\% | \$ | 47 |
|  | Police | 272 |  | 15,538 | 211 |  | 9,937 |  | 8,123 | 6,420 |  | 361,138 | 4.0\% |  | 56 |
|  | Fire | 119 |  | 7,848 | 102 |  | 4,935 |  | 2,182 | 2,062 |  | 129,795 | 4.1\% |  | 63 |
| September 30, 2021 | Teachers | 108 | \$ | 4,944 | 281 | \$ | 12,343 | \$ | 3,670 | 5,603 | \$ | 270,537 | -1.4\% | \$ | 48 |
|  | Police | 287 |  | 17,484 | 246 |  | 11,413 |  | 4,658 | 6,461 |  | 371,867 | 3.0\% |  | 58 |
|  | Fire | 92 |  | 5,733 | 113 |  | 5,751 |  | 1,657 | 2,041 |  | 131,434 | 1.3\% |  | 64 |
| September 30, 2022 | Teachers | 125 | \$ | 5,176 | 256 | \$ | 12,004 | \$ | 19,590 | 5,472 | \$ | 283,300 | 4.7\% | \$ | 52 |
|  | Police | 260 |  | 15,754 | 215 |  | 10,418 |  | 23,931 | 6,506 |  | 401,134 | 7.9\% |  | 62 |
|  | Fire | 136 |  | 9,932 | 75 |  | 4,200 |  | 8,211 | 2,102 |  | 145,378 | 10.6\% |  | 69 |
| September 30, 2023 | Teachers | 132 | \$ | 5,327 | 273 | \$ | 13,099 | \$ | 16,602 | 5,331 | \$ | 292,129 | 3.1\% | \$ | 55 |
|  | Police | 268 |  | 16,120 | 251 |  | 13,492 |  | 24,311 | 6,523 |  | 428,073 | 6.7\% |  | 66 |
|  | Fire | 111 |  | 6,898 | 106 |  | 6,030 |  | 8,616 | 2,107 |  | 154,862 | 6.5\% |  | 73 |

# Section VI. Summary of Plan Provisions 

## Teachers' Retirement Plan

## Effective Date

Established on September 18, 1998, the Plan applies to benefit payments based on service accrued after June 30, 1997. The U.S. Department of the Treasury is responsible for paying all benefits accrued before this date.

## Definitions

Affiliated Employers
District of Columbia Public Schools

## Covered Members

Teachers and other educational employees in a salary class position ET 1-15 under the District of Columbia Public Schools (DCPS) system become members automatically on their date of employment. Covered members who leave the DCPS system to work for a D.C. public charter school may elect to remain in the Plan. Such members who are on a leave of absence to teach in a D.C. public charter school must remain in the Plan. Substitute teachers and rehired retirees are not covered.

## Service Credit

One year of teaching service is given for each year of employment with DCPS. Service credit may also include purchased prior civilian government service and outside teaching service. For purposes of retirement eligibility and benefit accrual, creditable Federal and District service is aggregated in determining total creditable service.

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

## Vested

Members who accrue five or more years of creditable DCPS teaching service are vested for benefits. If a vested members leaves service, they may leave their Member Contributions with the Plan for a future deferred vested benefit when reaching eligibility for retirement (deferred vested in this report).

## Contributions

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

## Refund of Member Contributions

In the event a member leaves service prior to retirement, vested members may leave their contributions in the Plan or request a refund. Nonvested members must take a refund. No interest is accrued on contributions.

## Service Retirement

## Eligibility

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

Members hired before November 1, 1996

| Age | Service Credit |
| :---: | ---: |
| 55 | 30, including 5 years DCPS service |
| 60 | 20, including 5 years DCPS service |
| 62 | 5 years DCPS service |

Members hired on and after November 1, 1996

| Age | Service Credit |
| :---: | :---: |
| Any Age | 30, including 5 years DCPS service |
| 60 | 20, including 5 years DCPS service |
| 62 | 5 years DCPS service |

## Benefit

For members hired before November 1, 1996:

- $1.5 \%$ of Average Salary times service through 5 years, plus
- $1.75 \%$ of Average Salary times service from 6 through 10 years, plus
- $2.0 \%$ of Average Salary times service over 10 years.

For members hired on or after November 1, 1996:

- $2.0 \%$ of Average Salary times service.

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

## Involuntary Service Retirement

## Eligibility

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

All Members, regardless of date of hire

| Age | Service Credit |
| :---: | :---: |
| Any Age | 25, including 5 years DCPS service |
| 50 | 20, including 5 years DCPS service |

## Benefit

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

## Disability Retirement

## Eligibility

Active members with five or more years of DCPS service credit are covered (vested) for disability retirement. To be eligible, the member must be found to be incapable of satisfactorily performing the duties of his/her position as determined by DCPS.

## Benefit

Equal to Service Retirement benefit. Minimum benefit is the lesser of a) or b):
a. $40 \%$ of Average Salary
b. Calculated benefit amount by projecting service to age 60 .

## Survivor Benefits

## Lump Sum

## Eligibility

Death before completion of 18 months of school service or death without an eligible spouse/domestic partner, child or parent.

## Benefit

Refund of member contributions.

## Spouse/Domestic Partner Only

Eligibility
Death before retirement and married/registered domestic partnership for at least two years, or have a child by the marriage or registered domestic partnership.

Benefit
$55 \%$ of Service Retirement benefit. Minimum benefit is the lesser of a) or b):
a. $55 \%$ of $40 \%$ of Average Salary
b. $55 \%$ of the calculated benefit amount by projecting service to age 60 .

## Spouse/Domestic Partner \& Dependent Children

Eligibility
Death before retirement and married/registered domestic partnership for at least two years, or have a child by the marriage or registered domestic partnership. Children must be unmarried and not in a domestic partnership and under age 18, 22 if full-time student, or any dependent child incapable of self-support due to a disability incurred before age 18. Death does not have to occur before retirement for the children's benefit.

## Spouse/Domestic Partner Benefit

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

- $55 \%$ of $40 \%$ of Average Salary
- $55 \%$ of the calculated benefit amount by projecting service to age 60.


## Survivor Benefits

## Spouse/Domestic Partner \& Dependent Children (continued)

## Child Benefit

A benefit per child equal to the smallest of a) or b) or c):
a. $60 \%$ of Average Salary divided by the number of eligible children
b. $\$ 8,580^{1}$ (if hired before $1 / 1 / 1980$ ), $\$ 8,268^{1}$ (if hired between $1 / 1 / 1980$ and $10 / 31 / 1996$ ), or $\$ 7,476^{1}$ (if hired on or after $11 / 1 / 1996$ ) per child
c. $\$ 25,740^{1}$ (if hired before $1 / 1 / 1980$ ), $\$ 24,804^{1}$ (if hired between $1 / 1 / 1980$ and $10 / 31 / 1996$ ), or $\$ 22,428^{1}$ (if hired on or after $11 / 1 / 1996$ ) divided by the number of children.

## Dependent Children Only <br> Eligibility

Children must be unmarried and not in a domestic partnership and under age 18, 22 if fulltime student, or any dependent child incapable of self-support due to a disability incurred before age 18. Death does not have to occur before retirement for the children's benefit.

## Benefit

A benefit per child equal to the smallest of a) or b) or c):
a. $60 \%$ of Average Salary divided by the number of eligible children
b. $\$ 10,500^{1}$ (if hired before $1 / 1 / 1980$ ), $\$ 10,092^{1}$ (if hired between $1 / 1 / 1980$ and $10 / 31 / 1996$ ), or $\$ 9,048^{1}$ (if hired on or after $11 / 1 / 1996$ ) per child
c. $\$ 31,500^{1}$ (if hired before $1 / 1 / 1980$ ), $\$ 30,276^{1}$ (if hired between $1 / 1 / 1980$ and $10 / 31 / 1996$ ), or $\$ 27,144^{1}$ (if hired on or after $11 / 1 / 1996$ ) divided by the number of children.

## Parents Only

Eligibility
Death before retirement and no eligible spouse/domestic partner or children, and parents must have received at least one-half of their total income from the member immediately before the member's death.

Benefit
$55 \%$ of Service Retirement benefit. Minimum benefit is the lesser of a) or b):
a. $55 \%$ of $40 \%$ of Average Salary
b. $55 \%$ of the calculated benefit amount by projecting service to age 60.

[^0]
## Deferred Vested Retirement

## Eligibility

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

## Benefit

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

## Retirement Options

Retirement and disability benefits are payable for the life of the retired member. Optional reduced retirement benefits may be elected at the time of retirement to provide for continuation of a reduced survivor benefit amount to a designated beneficiary. Optional forms include:
a. Reduced Annuity with a Maximum Survivor Annuity (to Spouse/Domestic Partner):

Reduced benefit paid to the member so that upon the member's death, the spouse/domestic partner will receive $55 \%$ of the unreduced (normal life) annuity. Member's benefit is reduced by $2.5 \%$ of retirement benefit, up to $\$ 3,600$, plus $10 \%$ of any retirement benefit over $\$ 3,600$.
b. Reduced Annuity with a Partial Survivor Annuity (to Spouse/Domestic Partner)

Reduced benefit paid to the member so that upon the member's death, the spouse/domestic partner will receive a partial annuity that can range from $\$ 1$ up to any amount less than $55 \%$ of the unreduced (normal life) annuity amount. Member's benefit is reduced by the same amount as option a) above, multiplied by the ratio of the chosen benefit percent to the maximum benefit percent ( $55 \%$ ).
c. Reduced Annuity with a Life Insurance Benefit

Member elects a life insurance amount, payable in a lump sum to a designated beneficiary upon the member's death.
d. Reduced Annuity with a Survivor Annuity to a Person with an Insurable Interest A $55 \%$ joint and survivor annuity where the original benefit is reduced by $10 \%$ plus an additional $5 \%$ for each full 5 years, up to 25 years, that the designated beneficiary is younger than the member. Maximum reduction is $40 \%$ for any beneficiary who is 25 or more years younger than the member.

## Cost-of-Living Adjustments (COLA)

Each year on March 1, benefits which have been paid for at least twelve months preceding March 1 may be increased. The increase is equal to the annual Consumer Price Index (CPI-W Washington/Baltimore area). COLA's are included in benefit payments on and after April 1. If a member's retirement is effective after March 1 of the preceding year, the COLA amount is prorated.

For members hired on or after November 1, 1996, the cost-of-living increase is limited to no more than 3\% per year.

## Changes since Prior Valuation

The child death benefit amounts were increased with inflation effective March 1, 2023.

## Section VI. Summary of Plan Provisions

## Police Officers and Firefighters' Retirement Plan

## Effective Date

Established on September 18. 1998, the Plan applies to benefit payments based on service accrued after June 30, 1997. The U.S. Department of the Treasury is responsible for paying all benefits accrued before this date.

## Definitions

Affiliated Employers
The District of Columbia Metropolitan Police Department (MPD) and the District of Columbia Department of Fire and Emergency Medical Services (FEMS).

## Covered Members

Sworn Police Officers and Firefighters become members on their first day of active duty (cadets are not eligible). Membership is not automatic for uniformed EMT Firefighters. EMTs must be cross-trained in fire suppression, go through the fire academy, and considered sworn Firefighters.

## Service Credit

One year of service is given for each year of employment with MPD or FEMS. Service Credit may also include approved purchased lateral transferred service, prior civilian government service and prior military service. For purposes of retirement eligibility and benefit accrual, creditable Federal and District service is aggregated in determining total creditable service.

## Average Salary

For members hired before February 15, 1980, the highest 12 consecutive months of pay. For members hired on or after February 15, 1980, the highest 36 consecutive months of pay, divided by 3. Base pay does not include overtime, holiday or military pay. Longevity pay is included in Firefighters' base pay and in Police Officers' base pay once the member has completed 25 years of service.

## Vested

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

## Contributions

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

## Refund of Member Contributions

In the event a vested member leaves service prior to retirement, member contributions may be left in the Plan or refunded upon request. Nonvested members must take a refund. No interest is accrued on contributions.

## Service Retirement

## Eligibility

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

Members hired before November 10, 1996

| Age | Service Credit |
| :---: | :--- |
| Any age | 20 years departmental service (only if hired <br> before 2/15/1980) |
| 50 | 25 years departmental service <br> 50 |

Members hired on and after November 10, 1996

| Age | Service Credit |
| :---: | :---: |
| Any age | 25 years departmental service |
| 60 |  |

## Benefit

For members hired before November 10, 1996 :

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

For members hired on or after November 10, 1996:

- $2.5 \%$ of Average Salary times total service.

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

## Service-Related Disability Retirement

Eligibility
Disabled as a result of an injury or disease that permanently disables him/her for the performance of duty.

## Benefit

For members hired before February 15, 1980:
$2.5 \%$ of Average Salary times total years of service, subject to a minimum of $66-2 / 3 \%$ of Average Salary and a maximum of $70 \%$ of Average Salary.

For members hired on or after February 15, 1980:
$70 \%$ of final pay times percentage of disability, subject to a minimum of $40 \%$ of final pay.

## Nonservice-Related Disability Retirement

Eligibility
Active members with five or more years of departmental service are covered (vested) for disability retirement. The member is eligible if found that the disability precludes further service with his/her department.

## Benefit

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

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

## Survivor Benefits

## Lump Sum

Eligibility
Death before retirement without an eligible spouse/domestic partner or child.
Benefit
Refund of member contributions according to Plan's order of precedence.

## Lump Sum - Death In Line Of Duty

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

## Survivor Benefits

## Spouse Only - Death In Line Of Duty

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

## Benefit

$100 \%$ of final pay.

## Spouse Only - Death Not In Line Of Duty

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

Benefit $40 \%$ of the greater of a) or b):
a. Average Salary
b. Salary for step 6 salary class 1 of the DC Police and Firemen's Salary Act in effect, adjusted for cost-of-living increases if death occurs after retirement.

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

## Spouse/Domestic Partner \& Dependent Children

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

## Spouse Benefit

$40 \%$ of the greater of a) or b):
a. Average Salary
b. Salary for step 6 salary class 1 of the DC Police and Firemen's Salary Act in effect, adjusted for cost-of-living increases if death occurs after retirement.

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

## Survivor Benefits

## Spouse/Domestic Partner \& Dependent Children (continued)

Child Benefit
A benefit per child equal to the smallest of a) or b) or c):
a. $60 \%$ of Average Salary divided by the number of eligible children
b. $\$ 5,028^{2}$ (if hired before $11 / 10 / 1996$ ) or $\$ 4,572^{2}$ (if hired on or after $11 / 10 / 1996$ ) per child
c. $\$ 15,084^{2}$ (if hired before $11 / 10 / 1996$ ) or $\$ 13,716^{2}$ (if hired on or after $11 / 10 / 1996$ ) divided by the number of children.

## Dependent Children Only <br> Eligibility

Children must be unmarried and not in a domestic partnership and under age 18, 22 if fulltime student, or any dependent child incapable of self-support due to a disability incurred before age 18. Death does not have to occur before retirement for the children's benefit.

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

## Deferred Vested Retirement

Eligibility
Active members with five or more years of departmental service.

## Benefit

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

## Retirement Options

Retirement and disability benefits are payable for the life of the retired member. This includes an unreduced joint and survivor annuity as defined above in the "Survivor Benefits - Spouse/Domestic Partnership and Dependent Children" sections.

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

[^1]
## Cost-of-Living Adjustments (COLA)

Each year on March 1, benefits which have been paid for at least twelve months preceding March 1 may be increased. The increase is equal to the annual Consumer Price Index (CPI-W Washington/Baltimore area). COLA's are included in benefit payments on and after April 1. If member's retirement is effective after March 1 of the preceding year, the COLA amount is prorated.

For members hired on or after November 10, 1996, the cost-of-living increase is limited to no more than $3 \%$ per year. Members hired before February 15, 1980, receive equalization pay, which is defined as the percentage increase of active employees' salary increases. Equalization increases are not paid to survivors.

## Changes since Prior Valuation

The child death benefit amounts were increased with inflation effective March 1, 2023.

## Section VII. Actuarial Methods and Assumptions

## Valuation Date

All assets and liabilities are computed as of October 1, 2023. Demographic information was collected as of June 30, 2023. For valuation purposes (e.g., age, service), all members are treated as if remaining in the Plans as of October 1, 2023.

Investment Rate of Return
$6.25 \%$ per annum, compounded annually (net of investment expenses).

## Inflation Assumption

$3.00 \%$ per annum.

## Payroll Growth Assumption

4.00\% per annum.

## Percent Married

$65 \%$ of Teachers, Police Officers, and Firefighters are assumed to be married, with the wife 3 years younger than the husband. Active members are assumed to have one dependent child aged 10.

## Actuarial Method

The valuation is completed on the basis of the entry age normal cost method calculated on an individual basis with level percentage of pay normal cost.

## Amortization of Unfunded Actuarial Accrued Liability

The unfunded actuarial accrued liability (UAAL) is amortized on a level dollar basis based on the following funding policy adopted by the Board in 2012 and amended in 2021:

- Amortize the legacy UAAL as of October 1, 2021 over a closed 15-year period.
- Amortize the assumption and method changes and experience gains for the October 1, 2021 valuation over a closed 20-year period from the valuation date.
- Amortize all subsequent benefit changes, assumption and method changes and experience gains or losses over a closed 20 -year period from the date established.
- If a surplus exists (assets exceed liabilities), amortize over 30 years and eliminate all prior amortization bases.


## Assets

The method of valuing assets is intended to recognize a "smoothed" market value of assets. Under this method, the difference between actual return on market value from investment experience and the expected return on market value is recognized over a five-year period. The actuarial value of assets is constrained to an $80 \%$ to $120 \%$ corridor around market value of assets.

## Contribution Withdrawal Assumption

For Teachers, Police, and Firefighters, 20\% of the vested members who terminate are assumed to elect a withdrawal of their contributions while the remaining $80 \%$ are assumed to leave their contributions in the Plan in order to be eligible for a benefit at their deferred retirement date.

## Other Assumptions

To value the post-retirement death benefit for Police Officers and Firefighters, the benefit form for all retirements (normal or disabled) is assumed to be a $67.8 \%$ Joint and Survivor annuity for all participants. One-fifth of all Police Officer and Firefighter active deaths are assumed to occur in the line of duty.

## Post Retirement Cost-of-Living Adjustment

The cost of living, as measured by the CPI, will increase at the rate of $3.25 \%$ per year for members hired prior to November 10, 1996 and $2.75 \%$ per year for members hired on or after November 10, 1996.

## Credited Service and Date of Entry

Service is credited as elapsed time from date of hire. The entry date for participation is date of service.

## Military Service and Unused Sick Leave Service

Teachers are assumed to have 0.25 years of combined unused sick leave and military service credit at retirement. All Police and Fire members are assumed to have 1 year of combined unused sick leave and military service credit at retirement.

## Administrative Expenses

For Teachers, budgeted administrative expenses of $1.20 \%$ of payroll are added to the normal cost rate. For Police Officers and Firefighters, budgeted administrative expenses of $2.10 \%$ of payroll are added to the normal cost rate.

## Mortality Assumptions

Healthy Retiree and Actives

- Teachers: Pub-2010 General Employee and Healthy Retiree Mortality Table
- Police and Fire: Pub-2010 Safety Employees and Healthy Retiree Mortality Table with male ages set forward 1 year


## Disabled Retirees

- Teachers: Pub-2010 General Disabled Retiree Mortality Table
- Police and Fire: Pub-2010 Safety Disabled Retiree Mortality Table


## Contingent Beneficiaries

- Teachers: Pub-2010 General Contingent Survivor Mortality Table
- Police and Fire: Pub-2010 Safety Contingent Survivor Mortality Table

Mortality Improvement Scale
Improvement scale MP-2021 is applied on a generational basis. The improvement scale will be updated annually with any subsequent updates available on the valuation date.

## Liability for Terminated Non-Vested Participants

The Inactive with Deferred Benefits liability includes a liability for terminated non-vested participants who are due a refund of their contributions. The liability is equal to the refund amount as of the valuation date.

## Teachers

Salary Increase Assumption
Representative values of the assumed annual rates of future salary increases are as follows:

| Years of Service | Total Increase <br> (Next Year) |
| :---: | :---: |
| 5 | $7.10 \%$ |
| 10 | 4.65 |
| 15 | 4.00 |
| $>=20$ | 4.00 |

Termination Assumption
The assumed annual termination rates are shown in the following table:

| Rate of Termination |  |  |
| :---: | :---: | :---: |
| Service | Male | Female |
| 0 | $25.0 \%$ | $23.0 \%$ |
| 1 | $26.0 \%$ | $22.0 \%$ |
| 2 | $22.0 \%$ | $22.0 \%$ |
| 3 | $20.0 \%$ | $19.0 \%$ |
| 4 | $14.7 \%$ | $13.4 \%$ |
| 5 | $14.7 \%$ | $13.4 \%$ |
| 6 | $13.0 \%$ | $11.2 \%$ |
| 7 | $13.0 \%$ | $11.2 \%$ |
| 8 | $13.0 \%$ | $11.2 \%$ |
| 9 | $13.0 \%$ | $11.2 \%$ |
| $>=10$ | $9.4 \%$ | $5.8 \%$ |

Retirement Assumption
The assumed annual retirement rates are shown in the following table:

|  | Years of Service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | $\mathbf{5}$ | $\mathbf{6 - 1 9}$ | $\mathbf{2 0}$ | $\mathbf{2 1 - 2 4}$ | $\mathbf{2 5 - 2 9}$ | $\mathbf{3 0}$ | $\mathbf{3 1 +}$ |
| $=\mathbf{5 0}$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $5 \%$ | $20 \%$ | $15 \%$ |
| $\mathbf{5 0 - 5 9}$ | $0 \%$ | $0 \%$ | $5 \%$ | $5 \%$ | $5 \%$ | $20 \%$ | $15 \%$ |
| $\mathbf{6 0 - 6 1}$ | $0 \%$ | $0 \%$ | $\mathbf{2 0} \%$ | $15 \%$ | $15 \%$ | $\mathbf{2 0} \%$ | $15 \%$ |
| $\mathbf{6 2}$ | $\mathbf{2 0} \%$ | $20 \%$ | $20 \%$ | $15 \%$ | $15 \%$ | $20 \%$ | $15 \%$ |
| $\mathbf{6 3 - 7 4}$ | $20 \%$ | $15 \%$ | $15 \%$ | $15 \%$ | $15 \%$ | $20 \%$ | $15 \%$ |
| $\mathbf{7 5 +}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{1 0 0 \%}$ | $100 \%$ | $\mathbf{1 0 0 \%}$ | $\mathbf{1 0 0 \%}$ |

## Disability Assumption

Representative values of the assumed disability rates are shown in the following table:

| Rate of Disability <br> Proposed Rates |  |
| :---: | :---: |
| Age | $0.010 \%$ |
| 30 | $0.035 \%$ |
| 40 | $0.010 \%$ |
| 50 | $0.015 \%$ |

## Police Officers

Salary Increases
Police Officers are assumed to receive longevity increases applied to individual base pay at certain years of service. Representative values of the assumed annual rates of future salary increases are as follows:

| Years of <br> Service | Total Increase <br> (Next Year) |
| :---: | :---: |
| 5 | $6.25 \%$ |
| 10 | 5.20 |
| 15 | 6.15 |
| 19 | 8.15 |
| 20 | 6.00 |
| 24 | 7.80 |
| 25 | 5.15 |
| 29 | 7.65 |
| $30+$ | 7.25 |

## Termination Assumption

The assumed annual termination rates are shown in the following table:

| Rate of Termination <br> Service |  |  |
| :---: | :---: | :---: |
| 0 | $9.0 \%$ | Female |
| 1 | $9.0 \%$ | $7.0 \%$ |
| 2 | $8.0 \%$ | $7.0 \%$ |
| 3 | $8.0 \%$ | $5.0 \%$ |
| 4 | $8.0 \%$ | $3.8 \%$ |
| 5 | $6.2 \%$ | $3.8 \%$ |
| 6 | $4.1 \%$ | $2.7 \%$ |
| 7 | $4.1 \%$ | $2.7 \%$ |
| 8 | $2.7 \%$ | $2.7 \%$ |
| 9 | $2.7 \%$ | $2.7 \%$ |
| $>=10$ | $2.0 \%$ | $2.0 \%$ |

## Retirement Assumption

The assumed annual retirement rates are shown in the following table:

| Age | Years of Service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | <=24 | 25 | 26 | 27 | 28 | 29 | >=30 |
| <62 | 0\% | 50\% | 25\% | 25\% | 30\% | 35\% | 30\% |
| >=62 | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% |

Shown rates are for Tier 3 police officers. Tier 2 rates are limited to no earlier than age 50.

## Disability Assumption

Representative values of the assumed annual disability rates are shown in the following table:

| Age | Disability <br> Retirement <br> Rates |
| :---: | :---: |
| 30 | $0.083 \%$ |
| 40 | $0.173 \%$ |
| 50 | $0.315 \%$ |
| 60 | $0.383 \%$ |

$60 \%$ of Police disabilities are assumed to qualify as line of duty.

## Firefighters

## Salary Increases

Firefighters are assumed to receive longevity increases applied to individual base pay at certain years of service. Representative values of the assumed annual rates of future salary increases are as follows:

| Years of <br> Service | Total <br> Increase <br> (Next Year) |
| :---: | :---: |
| 5 | $6.05 \%$ |
| 10 | 6.05 |
| 14 | 7.30 |
| 15 | 4.85 |
| 19 | 6.30 |
| 20 | 4.25 |
| 24 | 5.20 |
| 25 | 4.80 |
| 29 | 6.00 |
| $30+$ | 4.50 |

Termination Assumption
The assumed annual termination rates are shown in the following table:

| PercentSeparating in the <br> Next Year <br> Service <br> Male |  |  |
| :---: | :---: | :---: |
| Female |  |  |
| 0 | $9.0 \%$ | $16.0 \%$ |
| 1 | $7.0 \%$ | $12.0 \%$ |
| 2 | $4.2 \%$ | $2.1 \%$ |
| 3 | $4.2 \%$ | $2.1 \%$ |
| 4 | $3.4 \%$ | $2.1 \%$ |
| 5 | $3.4 \%$ | $1.8 \%$ |
| 6 | $3.4 \%$ | $2.3 \%$ |
| 7 | $1.7 \%$ | $2.3 \%$ |
| 8 | $1.7 \%$ | $2.3 \%$ |
| 9 | $1.7 \%$ | $2.3 \%$ |
| $>=10$ | $1.0 \%$ | $0.5 \%$ |

## Retirement Assumption

The assumed annual retirement rates are shown in the following table:

| Age | Years of Service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $<=24$ | 25 | 26 | 27 | 28 | 29 | $>=30$ |
| <62 | 0\% | 15\% | 15\% | 15\% | 25\% | 25\% | 40\% |
| >=62 | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% |

Shown retirements rates are for Tier 3 firefighters. Tier 2 rates are limited to no earlier than age 50.

Disability Assumption
Representative values of the assumed annual disability rates are shown in the following table:

| Age | Disability <br> Retirement <br> Rates |
| :---: | :---: |
| 30 | $0.135 \%$ |
| 40 | $0.225 \%$ |
| 50 | $0.300 \%$ |
| 60 | $0.375 \%$ |

$60 \%$ of Fire disabilities are assumed to qualify as line of duty.

## Rationale for Assumptions

The economic and demographic assumptions are based on the experience study for the period ending September 30, 2020, and were adopted by the Board on October 19, 2021.

Changes Since Prior Valuation
None.

## Section VIII. Glossary

## Actuarial Accrued Liability (AAL)

The difference between the Present Value of Future Benefits and the Present Value of Future Normal Costs or the portion of the present value of future benefits allocated to service before the valuation date in accordance with the actuarial cost method. Represents the present value of benefits expected to be paid from the plan in the future allocated to service prior to the date of the measurement.

## Actuarial Assumptions

Estimates of future plan experience such as investment return, expected lifetimes and the likelihood of receiving a pension from the pension plan. Demographic, or "people" assumptions include rates of mortality, retirement and separation. Economic, or "money" assumptions, include expected investment return, inflation and salary increases.

## Actuarial Cost Method

A procedure for allocating the Present Value of Future Benefits into the Present Value of Future Normal Costs and the Actuarial Accrued Liability. Also known as the "funding method".

Actuarial Value of Assets (AVA)
The value of the assets as of a given date, used by the actuary for valuation purposes. The AVA may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially determined contribution (ADC).

## Actuarially Determined Contribution (ADC)

The employer's periodic determined contribution to a pension plan, calculated in accordance with the assumptions and methods used by the plan actuary.

## Amortization Method

A procedure for payment of the Unfunded Actuarial Accrued Liability (UAAL) by means of periodic contributions of interest and principal. The components of the amortization payment for the UAAL includes the amortization period length, amortization payment increase (level dollar or level percentage of pay), and amortization type (closed or open).

## Experience Gain/Loss

A measure of the difference between actuarial experience and experience anticipated by a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

## Funded Ratio

The actuarial value of assets expressed as a percentage of the plan's actuarial accrued liability.

## Low Default-Risk Obligation Measure (LDROM)

The present value of benefits accrued at the valuation date using actuarial assumptions that are generally the same as those used in determining the plan's funding liability, with the discount rate changed to reflect the expected return on a low-default-risk investment portfolio. For plans using a funding method that does not quantify gains and losses annually (but rather spreads them over future years through the changes in the normal cost), the actuarial cost method is also changed to reflect a different pattern of allocating costs to historical periods than is used to determine the ADC.

## Market Value of Assets (MVA)

The value of the assets as of a given date held in the trust available to pay for benefits of the pension plan.

## Normal Cost

That portion of the Present Value of Future Benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

## Present Value of Future Benefits (PVFB)

The present value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, non-retired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.

## Present Value of Future Normal Cost (PVFNC)

The portion of the Present Value of Future Benefits (PVFB) allocated to future service.
Unfunded Actuarial Accrued Liabilities (UAAL)
The difference between the Actuarial Accrued Liability (AAL) and the Actuarial Value of Assets (AVA).

## Appendix 1

## Summary of Funding Progress

|  | (1) | (2) | (3) |  | (4) | (5) | (6) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Date | Actuarial Value of Assets | Actuarial Accrued Liability | Percentage Funded (1) / (2) |  | Unfunded Actuarial Accrued Liability (2) - (1) | Annual Covered Payroll | Unfunded Actuarial Accrued Liability as a Percentage of Covered Payroll (4) / (5) |
| Teachers' Retirement Plan |  |  |  |  |  |  |  |
| 10/1/2019 | \$ 2,271,160 | 2,494,291 | 91.1\% | \$ | 223,131 | 516,609 | 43.2\% |
| 10/1/2020 | 2,431,075 | 2,640,803 | 92.1\% |  | 209,728 | 551,835 | 38.0\% |
| 10/1/2021 | 2,684,368 | 2,698,618 | 99.5\% |  | 14,250 | 600,481 | 2.4\% |
| 10/1/2022 | 2,838,193 | 2,871,570 | 98.8\% |  | 33,376 | 612,463 | 5.4\% |
| 10/1/2023 | 2,966,048 | 3,229,928 | 91.8\% |  | 263,880 | 700,092 | 37.7\% |
| Police Officers and Firefighters' Retirement Plan |  |  |  |  |  |  |  |
| 10/1/2019 | \$ 6,269,628 | 5,604,573 | 111.9\% | \$ | $(665,055)$ | 495,809 | (134.1\%) |
| 10/1/2020 | 6,676,013 | 6,023,843 | 110.8\% |  | $(652,169)$ | 507,348 | (128.5\%) |
| 10/1/2021 | 7,290,173 | 6,181,614 | 117.9\% |  | $(1,108,559)$ | 492,787 | (225.0\%) |
| 10/1/2022 | 7,612,268 | 6,639,124 | 114.7\% |  | $(973,145)$ | 482,092 | (201.9\%) |
| 10/1/2023 | 7,864,126 | 7,358,696 | 106.9\% |  | $(505,430)$ | 525,218 | (96.2\%) |
| Total |  |  |  |  |  |  |  |
| 10/1/2019 | \$ 8,540,788 | 8,098,864 | 105.5\% | \$ | $(441,924)$ | 1,012,418 | (43.7\%) |
| 10/1/2020 | 9,107,088 | 8,664,646 | 105.1\% |  | $(442,442)$ | 1,059,182 | (41.8\%) |
| 10/1/2021 | 9,974,541 | 8,880,232 | 112.3\% |  | $(1,094,309)$ | 1,093,267 | (100.1\%) |
| 10/1/2022 | 10,450,461 | 9,510,693 | 109.9\% |  | $(939,768)$ | 1,094,555 | (85.9\%) |
| 10/1/2023 | 10,830,174 | 10,588,624 | 102.3\% |  | $(241,550)$ | 1,225,309 | (19.7\%) |

(\$ in Thousands)

Analysis of the dollar amounts of net assets available for benefits, actuarial accrued liability, and unfunded actuarial accrued liability in isolation can be misleading. Expressing the net assets available for benefits as a percentage of the actuarial accrued liability provides one indication of funding status on a going-concern basis. Analysis of this percentage over time indicates whether the plan is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan. Trends in unfunded actuarial accrued liability and annual covered payroll are both affected by inflation. Expressing the unfunded actuarial accrued liability as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the District's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan.

## Appendix 2

## Valuation Solvency Test

The following table shows the accrued liabilities and the portion of accrued liabilities covered by reported assets.

|  | Aggregate Accrued Liabilities For |  | Portion of Accrued Liabilities Covered by Reported <br> Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

(\$ in Thousands)

## Appendix 3

## Risk Measures

Pension plans are complicated financial instruments designed to provide income security for plan participants as they move through their working lives and into retirement. As such they can be subject to many different forces that can put the plan in better or worse positions over time. The primary risk that a plan sponsor incurs from a defined benefit plan is the risk of substantial increases in annual contributions.

The "maturity" level of a plan can indicate the likely sensitivity the plan will have to different events whether positive or negative. Variations in the investment returns are a common source of these types of events or shocks. Other sources might be experience that differs from that assumed, assumption changes or plan changes.

The purpose of this section is to provide the reader with a basic understanding of the fundamentals of pension financing and the associated risks, including implications of the Plan's funding policy on future plan funding, how future experience may differ from the assumptions used, and the potential volatility of future measurements resulting from these differences.

## Elements of Pension Plan Financing

The following equation lays out the fundamental elements of pension plan financing:

$$
\text { Contributions + Investment Returns }=\text { Benefit Payments }+ \text { Expenses }
$$

Employers and employees contribute to a plan based on the statutory requirements, plan terms, and plan sponsor funding policy. The plan invests these contributions and earns a return on that investment. Together, these contributions and investment returns are the sole sources of income to the plan. Benefits are paid to participants who have met the eligibility and vesting requirements defined by the plan. Plans also pay administrative, investment, auditing, legal, and other expenses for maintaining the plan. Over time, contributions and investment earnings must equal benefits and expenses.

From this equation, it is evident that funding, investment, and benefit policies must be developed together. Once the benefit terms are established, each plan sponsor must determine the desired balance of contributions versus investment returns needed to finance benefits accrued to participants. It is important to remember that the plan sponsor's investment and funding policies, along with the selected actuarial assumptions, determine the assumed balance between contributions and investment returns. The actual cost of a plan is based on the actual experience of the plan and may result in a different balance than is assumed. Ultimately, the expected return does not impact the long-term relationship between the contributions required and the benefit level that can be supported by such contributions. Using a higher or lower expected return assumption may give a incorrect sense of benefit security if the plan does not realize that level of actual returns over time.

The development of integrated benefit, funding, and investment policies generally requires consideration of many factors such as:

- Balancing benefit security and intergenerational equity;
- Risk appetite and ability to absorb short-term volatility in plan contributions;
- Current plan funded status;
- Timing and expected duration of benefit payments; and
- Nature and frequency of past and anticipated future plan amendments.


## Significant Risks Affecting Pension Plans

Examples of risk common to most public plans include the following (generally listed from greatest to least risk):

- Investment risk: The potential that investment returns will be different than expected.
- Contribution risk: the potential that actual future contributions are not made in accordance with the plan's actuarially based funding policy.
- Longevity and other demographic risks: The potential that mortality or other demographic experience will be different than expected.
- Asset/liability mismatch risk: The potential that changes in the value of liabilities are not matched by changes in asset values.
- Cash flow risks: The potential that contributions to the plan will not cover benefit payments and expenses.

Investment risk is often the single most significant risk for defined benefit plans. Plans that seek a higher investment return are typically forced to accept a higher level of volatility that can change the plan's funded status drastically year-to-year. Use of an asset smoothing method that phases in investment gains and losses over a period of years can give the perception of less volatility in the funded status from year to year.

Contribution risk most commonly results from either large contribution increases that are difficult for the plan sponsor to meet, or from a material decrease in the number of covered employees and/or covered payroll.

Assumptions regarding mortality and other demographic factors related to participant behavior bring the risk that future experience will diverge from the reasonable assumptions utilized within the actuarial valuation model. For example, participants living longer than expected will increase plan costs, while people terminating sooner than expected will generally decrease plan costs. Additionally, what is considered a reasonable assumption may change over time and lead to an increase or decrease in future contributions. Since the start of the COVID-19 pandemic, there has been much discussion about how this event will affect longevity, both over the short-term and long-term, and how certain demographic groups may be impacted to a greater degree than others. Actual life expectancies may be longer or shorter than what is reflected in the valuation and benefit payment projections, and will increase or decrease the cost of the plan as actual experience emerges.

Asset/liability mismatch risk is also another potential risk for many pension plans. To the extent that the duration of plan assets is not matched to the duration of plan liabilities a change in discount rates could have an impact on the plan's funded status. For most public pension plans, changes in asset values and interest rates do not directly affect the measurement of the plan's liability.

As plans mature, they become more reliant on investment returns to pay benefits and expenses. When plans have negative cash flows, they must spend interest and dividends, or may be forced to sell assets at inopportune times, to meet those obligations.

One item left off this list is "interest rate risk" (i.e., the potential that interest rates will be different than expected). This risk is common in corporate ERISA plans where funding is based on bond rates. Interest rates on bonds are still an important consideration when setting an expected return assumption and can change over time, along with long-term capital market expectations. Together these may lead to a change in the interest rate used to value plan liabilities which will increase or decrease the measurement of plan liabilities and the actuarially determined contribution.

## Quantifying Investment and Funded Status Risk

Although cash and money market funds have the lowest absolute investment risk, they are typically not the lowest risk investment for a pension plan. With respect to interest rate risk, a pension plan liability behaves like the price of a bond because both equal the discounted value of a series of future cash flows. The present value will change in the opposite direction to a change in interest rates. Therefore, a bond portfolio with the timing of expected income cash flows matched to the expected benefit payment outflows is typically the lowest risk investment approach for a pension plan.

Corporate, Treasury, and municipal bonds, often considered lower risk investment classes, can still have a high level of interest rate risk in their present values. If the duration (timing and pattern of income payments) of the fixed income assets are misaligned with the duration of the plan's liability, there can be significant funded status volatility as interest rates change. The way to mitigate this volatility is minimizing the asset/liability (or duration) mismatch risk.

One means of quantifying the expected cost of assuming future investment and asset/liability mismatch risk is to compare the Plan's current assets to a liability calculated assuming very low default risk. One such measure is called a Low Default-Risk Obligation Measure (LDROM). An example of an LDROM is the Plan's Funding Liability determined using a discount rate based on the yields on high quality municipal bonds, similar to what is referenced under GASB statement 68.

|  |  | Liability <br> Measure | Assumed <br> Return |
| :--- | :---: | :---: | :---: |
| Actuarial Liability - Funding Policy Return | $\$$ | $10,588,624$ | $6.25 \%$ |
| Actuarial Liability - Municipal Bond Yield (LDROM) | $\$$ | $13,790,673$ | $4.63 \%$ |

The difference between the LDROM and the Actuarial Liability used to determine funding contributions can be viewed in several ways, and certain views of this measure may be more relevant for different plan sponsors:

- The expected long-term contribution savings to be achieved by investing in asset classes with higher expected risk and returns than bonds.
- The cost of investing in an all-bond portfolio and significantly lowering expected longterm investment returns in exchange for protecting the Plan's current funded status.
- A measure of the Plan's non-diversifiable investment risk.

Investors expect to be compensated for assuming risk when they make an investment. The risk premium of an investment is the return an asset is expected to generate in excess of the riskfree rate of return. The more risk assumed by the investor, the greater the return they expect to achieve in exchange for accepting that risk.

For plans whose assumed long-term rate of return on plan assets is greater than the municipal bond yield used for the LDROM calculation, the expected cost to the plan sponsor of funding the plan will be lower because of the greater level of investment risk accepted. This in turn leads to greater volatility in the plan's funded status because the actual return on plan investments is expected to vary considerably year-to-year. Conversely, if a plan has taken steps to reduce asset/liability mismatch risk the expected cost of contributions to fund the plan will be greater (if the plan is not already fully funded) and the volatility in the plan's funded status will be reduced.

Selecting the right level of investment risk (and associated asset/liability mismatch risk) for a plan requires complex analysis that goes beyond the scope of these basic disclosures. Included in any such analysis must be an evaluation of the plan sponsor's funding policy.

## Risk Considerations in Assessing a Funding Policy

When assessing a plan's funding policy, two primary considerations are:

- whether the contributions are determined using reasonable and appropriate actuarial cost, amortization, and asset valuation methods (i.e., is the contribution an Actuarially Determined Contribution (ADC)), and
- the projected period until any Unfunded Actuarial Accrued Liability (UAAL) is fully amortized.

Under the current funding policy, the annual contribution is an ADC. The Plan's UAAL is required to be amortized over 20 years, with new layered amortization bases established annually.

Assuming all actuarial assumptions reflected in the annual valuation are met and the funding policy contributions are made as expected, this funding policy is expected to reduce the plan's UAAL in future years. The funding policy contribution is at least equal to the sum of the normal cost and interest on the UAAL. The effect of declining interest rates, investment losses, or other actuarial losses may offset the favorable effect of these contributions and cause the UAAL to remain steady or increase in future years.

Some examples of changes from year to year that will shorten or lengthen the period until the UAAL is fully amortized include:

Factors that Shorten the
Amortization Period

Contributing more than the ADC
Investment and demographic gains
Increasing interest rates
Shorter life expectancies
Reducing or eliminating future benefit accruals

Factors that Lengthen the Amortization Period

Contributing less than the ADC
Investment and demographic losses
Decreasing interest rates
Longer life expectancies
Increasing benefit accruals (past and/or future)

## Historical Plan Risk and Maturity Measures

While historical plan experience is no guaranteed predictor of the future, it can be informative in assessing the degree of risk and variability in the annual valuation results year-to-year, and in understanding how certain factors influence future outcomes.

There are several plan maturity measures that can be significant to understanding the risks associated with the plan and how they change over time. The following table shows four commonly used measures of the relative riskiness of a pension plan, relative to the plan sponsor and the employee group covered by the plan and how they have changed over time.

| Teachers |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Risk Measure | 10/1/2021 | 10/1/2022 | 10/1/2023 | Conservative <br> Measures |
| Retiree Liability as a Percent <br> of Total Liability | $42 \%$ | $43 \%$ | $40 \%$ | $<50 \%$ |
| Assets to Payroll <br> (Asset Volatility Ratio) | 4.9 | 4.2 | 4.1 | $<5$ |
| Liabilities to Payroll <br> (Liability Volatility Ratio) | 4.5 | 4.7 | 4.6 | $<5$ |
| Benefit Payments to <br> Contributions | 0.8 | 0.8 | 1.0 | $<3$ |


| Police and Fire |  |  |  | Conservative |
| :--- | :--- | :--- | :--- | :--- |
| Risk Measure | $10 / 1 / 2021$ | $10 / 1 / 2022$ | $10 / 1 / 2023$ | Measures |
| Rese |  |  |  |  |


| Retiree Liability as a Percent | $49 \%$ | $54 \%$ | $55 \%$ | $<50 \%$ |
| :--- | :---: | :---: | :---: | :---: |
| of Total Liability | 16.2 | 14.3 | 14.6 | $<5$ |
| Assets to Payroll <br> (Asset Volatility Ratio) | 12.5 | 13.8 | 14.0 | $<5$ |
| Liabilities to Payroll | 1.1 | 1.2 | 1.7 | $<3$ |

The Asset Volatility Ratio (AVR) is equal to the market value of assets (MVA) divided by payroll. A higher AVR implies that the Plan is exposed to greater contribution volatility. The current Teachers AVR of 4.1 indicates that a $1 \%$ asset gain/loss can be related to about $4.1 \%$ of the annual payroll. The current Police and Fire AVR of 14.6 indicates that a $1 \%$ asset gain/loss can be related to about $14.6 \%$ of the annual payroll. The Plan amortizes asset gains/losses over a period of 30 years since both plans currently have a surplus. This would result in a change in the District's contribution of about $0.3 \%$ of payroll for Teachers and $1.1 \%$ of payroll for Police and Fire for each $1.0 \%$ change in market assets in each Plan.

The Liability Volatility Ratio (LVR) is equal to the Actuarial Accrued Liability (AAL) divided by payroll. A higher LVR implies that the Plan is exposed to greater contribution volatility due to changes in liability measurements. The current Teachers LVR of 4.6 indicates that a $1 \%$ liability gain/loss can be related to about $4.6 \%$ of the annual payroll. The current Police and Fire LVR of 14.0 indicates that a $1 \%$ liability gain/loss can be related to about $14.0 \%$ of the annual payroll. The Plans amortize current surpluses over a period of 30 years. This would result in a change in the District's contribution of about $0.3 \%$ of payroll for Teachers and about $1.0 \%$ of payroll for Police and Fire for each $1.0 \%$ change in each Plan. Note, as a plan approaches a $100 \%$ funded level, the AVR will converge to the LVR.

The use of payroll in these risk measures is an easily available substitute for the employer's revenue and often reflects the employer's ability to afford the plan. Each of these measures is a measure of plan maturity. Some ratios are approaching or outside of the "conservative" range because the plans are becoming more mature. Mature plans present more risk to plan sponsors because changes to the liability or assets will result in large changes in the unfunded liability as compared to the overall size of the employer as measured by payroll.

## Additional Review

In some instances, more detailed quantitative assessment of risks is warranted either by the above maturity metrics, part of a periodic self-assessment of risks, or due to changes in investment allocations and capital market assumptions. When risks are identified and discussed early, Plan Sponsors may have more options available to them to address those risks. As plans mature, however, certain tools become less effective for addressing potential future funding shortfalls.

The following are examples of tests that could be performed:

- Scenario Test-A process for assessing the impact of one possible event, or several simultaneously or sequentially occurring possible events, on a plan's financial condition. A scenario test could show, for example, the effect of a layoff or reduction in workforce, or early retirement program.
- Sensitivity Test-A process for assessing the impact of a change in an actuarial assumption on an actuarial measurement. A sensitivity analysis could demonstrate, for example, the impact of a decrease in the valuation discount rate or a change in future life expectancies.
- Stochastic Modeling-A process for generating numerous potential outcomes by allowing for random variations in one or more inputs over time for the purpose of assessing the distribution of those outcomes. This type of analysis could show, for example, a range of potential future contribution levels and the likelihood of contributions increasing to a certain level.
- Stress Test—A process for assessing the impact of adverse changes in one or relatively few factors affecting a plan's financial condition. A stress test could show, for example, the impact of a single year or period of several years with significant investment losses.


## Appendix 4

## D.C. Code §1-907.02(c) Adjustment to FY2025 Payment

Beginning in fiscal year 2001, the District payment was adjusted pursuant to D.C. Code §1907.02(c). This section stipulates that "...the enrolled actuary shall determine whether the amount appropriated for the applicable fiscal year resulted in an overpayment or a shortfall based upon the actual covered payroll."

The D.C. Code §1-907.02(c) adjustment to the fiscal year 2025 District payment is calculated by taking the actual fiscal year 2023 covered payroll for each employee class and multiplying by the corresponding fiscal year 2023 contribution rates, which were determined as of October 1, 2021. This result is the fiscal year 2023 contribution that was required to be made by the District, based on actual payroll. The required contribution is then compared to the actual contribution that was paid by the District based on projected payroll. The difference between the required and actual contributions is the D.C. Code $\S 1-907.02$ (c) adjustment. Any adjustment amount that cannot be used in a given year is carried forward to the next fiscal year.

The following table shows the D.C. Code §1-907.02(c) Adjustment to FY2025 Payment.

|  | Teachers |  | Police |  | Fire |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Actual FY2023 Covered Payroll | \$ | 704,605 | \$ | 334,297 | \$ | 181,169 |
| 2. FY2023 Contribution Rate |  | 7.03\% |  | 18.40\% |  | 15.05\% |
| 3. Actual FY2023 Contribution Required |  | 49,534 |  | 61,511 |  | 27,266 |
| 4. Actual FY2023 Contribution Paid without Adjustment |  | 43,913 |  | 61,338 |  | 26,971 |
| 5. Preliminary D.C. Code §1-907.02(c) Adjustment to FY2025 Payment (3. - 4.) |  | 5,621 |  | 173 |  | 295 |
| 6. FY2023 Unrecognized Amount |  | 0 |  | 0 |  | 0 |
| 7. Final D.C. Code $\S 1-907.02$ (c) Adjustment to FY2025 Payment (5. + 6.) |  | 5,621 |  | 173 |  | 295 |
| 8. Adjustment Applied to FY2025 Payment | \$ | 5,621 | \$ | 173 | \$ | 295 |
| 9. Carryover Adjustment (7. - 8.) |  | 0 |  | 0 |  | 0 |

(\$ in Thousands)

## Appendix 5

## Experience Gain/(Loss)

The following table shows the gain/(loss), or change in unfunded accrued liability, due to experience other than expected.

| Experience Gain/(Loss) | Teachers |  | Police |  | Fire |  | Police and Fire |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age \& Service Retirements <br> If members retire at older ages, there is a gain; if younger ages, a loss. | \$ | (1.7) | \$ | (11.9) | \$ | (3.8) | \$ | (15.7) | \$ | (17.4) |
| Disability Retirements <br> If disability claims are less than assumed, there is a gain; if more claims, a loss. |  | 0.5 |  | (5.2) |  | 0.5 |  | (4.7) |  | (4.2) |
| Death-in Service Benefits <br> If survivor claims are less than assumed, there is a gain; if more claims, there is a loss. |  | 2.3 |  | 2.7 |  | 0.8 |  | 3.6 |  | 5.9 |
| Withdrawal from Employment If more liabilities are released by withdrawals than assumed, there is a gain; if smaller releases, a loss. |  | (2.7) |  | (0.7) |  | 0.5 |  | (0.2) |  | (2.9) |
| Pay Increases <br> If there are smaller pay increases than assumed, there is a gain; if greater increases, a loss. |  | (133.1) |  | (139.6) |  | (62.6) |  | (202.2) |  | (335.3) |
| New Members <br> Additional unfunded actuarial accrued liability will produce a loss. |  | (37.6) |  | (4.8) |  | (2.1) |  | (6.8) |  | (44.4) |
| Investment Income <br> If there is greater investment income than assumed, there is a gain; if less income, a loss. |  | (43.7) |  | (79.8) |  | (36.4) |  | (116.2) |  | (159.9) |
| Death after Retirement <br> If retirees live longer than assumed, there is a loss; if not as long, a gain. |  | 1.0 |  | (4.3) |  | (3.1) |  | (7.4) |  | (6.5) |
| COLA/CPI <br> If inflation is different than expected, gains or losses can occur. |  | (30.7) |  | (76.1) |  | (26.8) |  | (102.9) |  | (133.6) |
| Other <br> Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, etc. |  | 4.4 |  | (4.4) |  | 17.1 |  | 12.7 |  | 17.1 |
| Gain/(Loss) During Year from Experience |  | (241.3) |  | (324.1) |  | (115.9) |  | (439.9) |  | (681.2) |
| Non-Recurring Items <br> Adjustments for plan amendments, assumption changes, method changes or audit changes. |  | - |  | - |  | - |  | - |  | - |
| Composite Gain/(Loss) During Year | \$ | (241.3) | \$ | (324.1) | \$ | (115.9) | \$ | (439.9) | \$ | (681.2) |

## Appendix 6

## Valuation Balance Sheet - Teachers

The following table shows the Teachers valuation balance sheet (present and prospective assets and the actuarial liabilities) as of October 1, 2023 which is presented in the DCRB ACFR.

| Teachers Present and Prospective Assets |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Actuarial Value of Present Assets |  |  | \$ | 2,966,048,189 |
| Present Value of Future Members' Contributions |  |  |  | 483,704,170 |
| Present Value of Future Employer Contributions |  |  |  |  |
| Normal contributions | \$ | 351,389,580 |  |  |
| Unfunded accrued liability contributions |  | 263,880,194 |  |  |
| Total Prospective Employer Contributions |  |  |  | 615,269,774 |
| Total Present and Prospective Assets |  |  | \$ | 4,065,022,133 |
| Teachers Actuarial Liabilities |  |  |  |  |
| Present Value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits |  |  | \$ | 1,305,419,543 |
| Present Value of prospective benefits payable on account of inactive members |  |  |  | 261,560,746 |
| Present Value of prospective benefits payable on account of present active members |  |  |  |  |
| Service retirement benefits | \$ | 2,006,065,969 |  |  |
| Disability retirement benefits |  | 35,420,235 |  |  |
| Survivor benefits |  | 19,676,320 |  |  |
| Separation benefits |  | 436,879,320 |  |  |
| Total |  |  |  | 2,498,041,844 |
| Total Actuarial Liabilities |  |  | \$ | 4,065,022,133 |

## Appendix 7

## Valuation Balance Sheet - Police and Fire

The following table shows the Police and Fire valuation balance sheet (present and prospective assets and the actuarial liabilities) as of October 1, 2023 which is presented in the DCRB ACFR.

| Police and Fire Combined Present and Prospective Assets |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Actuarial Value of Present Assets |  |  |  | 7,864,125,965 |
| Present Value of Future Members' Contributions |  |  |  | 458,809,076 |
| Present Value of Future Employer Contributions |  |  |  |  |
| Normal contributions | \$ | 1,777,335,009 |  |  |
| Unfunded accrued liability contributions |  | $(505,430,436)$ |  |  |
| Total Prospective Employer Contributions |  |  |  | 1,271,904,573 |
| Total Present and Prospective Assets |  |  |  | 9,594,839,614 |
| Police and Fire Combined Actuarial Liabilities |  |  |  |  |
| Present Value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits |  |  |  | 4,073,119,533 |
| Present Value of prospective benefits payable on account of inactive members |  |  |  | 72,674,674 |
| Present Value of prospective benefits payable on account of present active members |  |  |  |  |
| Service retirement benefits | \$ | 4,887,429,148 |  |  |
| Disability retirement benefits |  | 214,180,860 |  |  |
| Survivor benefits |  | 50,796,663 |  |  |
| Separation benefits |  | 296,638,736 |  |  |
| Total |  |  |  | 5,449,045,407 |
| Total Actuarial Liabilities |  |  |  | 9,594,839,614 |


[^0]:    ${ }^{1}$ Survivor benefit amounts are as of March 1, 2023 and are subject to annual inflation adjustments.

[^1]:    ${ }^{2}$ Survivor benefit amounts are as of March 1, 2023 and are subject to annual inflation adjustments.

