

North Dakota Public Employees Retirement System

Actuarial Valuation as of July 1, 2024



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October 23, 2024

Board Members
North Dakota Public Employees Retirement System
Bismarck, North Dakota

Members of the Board:

We are pleased to provide our formal annual Actuarial Valuation Report as of July 1, 2024, for the North Dakota Public Employees Retirement System ("NDPERS"). The actuarial valuation was performed at the request of the Board and is intended for use by the Board and NDPERS and those designated by the Board and NDPERS. This report may be provided to parties other than the Board and NDPERS only in its entirety and only with the permission of the Board and NDPERS. GRS is not responsible for unauthorized use of this report.

The purposes of the actuarial valuation are to measure the funding progress of NDPERS, to determine the Actuarially Determined Employer Contribution (ADEC) rate for the NDPERS for the Plan Year commencing July 1, 2024, and ending on June 30, 2025, and to determine the state employer contribution rate for 2026 and 2027 for the Main System. This actuarial valuation also provides information required by GASB Statement No. 67. Information required by GASB Statement No. 68 and the employer allocation of the Net Pension Liability are provided in a separate report. This report should not be relied on for any purpose other than the purpose described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The ADEC rate in this report is determined using the actuarial assumptions and methods disclosed in Section E of this report. This report includes risk metrics on page A-6 but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

This actuarial valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The actuarial valuation was based upon information furnished by the NDPERS Staff, concerning benefits provided by the North Dakota Public Employees Retirement System, financial transactions, plan provisions and census data for active members, terminated members, retirees and beneficiaries as of July 1, 2024. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the NDPERS Staff.

This report was prepared using actuarial assumptions adopted by the Board as authorized under North Dakota Administrative Code Section 71-02. Most actuarial assumptions used in the actuarial valuation as of July 1, 2024 were based on an experience review for the period from July 1, 2014 to July 1, 2019, and were adopted for first use commencing with the actuarial valuation as of July 1, 2020. In addition, the investment return assumption was decreased from 7.00 percent to 6.50 percent beginning with the July 1, 2022 actuarial valuation. All actuarial assumptions used in this report are reasonable for the purposes of this actuarial valuation. The combined effect of the assumptions is expected to have no significant bias (i.e., not significantly optimistic or pessimistic). All actuarial assumptions and methods used in the valuation follow the guidance in the applicable Actuarial Standards of Practice. Additional information about the actuarial assumptions is included in the Section E of this report.

There have been no plan provision changes since the previous valuation. However, it is important to note that the Main System will be closed to employees newly enrolled into the system on January 1, 2025 and later.

Contributions to PERS are currently based on fixed statutory contribution rates. Effective January 1, 2024, the Main System employer contribution rate increased by 1.00 percent of pay, from 7.12 percent of pay to 8.12 percent (plus an additional 1.14 percent of pay for members hired after 2019). The state employer contribution for 2026 and later was changed to be the amount sufficient to fund the Main System on an actuarial basis, with the amortization of the unfunded liability determined on a level percent of payroll basis over a closed period beginning on January 1, 2026 and ending June 30, 2056.

We have assessed that the contribution rate calculated under the current funding policy (20-year open level-percentage of pay amortization) is a reasonable Actuarially Determined Employer Contribution (ADEC) and it is consistent with the plan accumulating adequate assets to make benefit payments when due.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the North Dakota Public Employees Retirement System as of the actuarial valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation, and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Bonita Wurst and Abra Hill are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions herein.

The signing actuaries are independent of the plan sponsor.



Gabriel, Roeder, Smith & Company will be pleased to review this actuarial valuation and report with the Board of Trustees and to answer any questions pertaining to the actuarial valuation.

Respectfully submitted,

Gabriel, Roeder, Smith & Company



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SECTION A

ACTUARIAL VALUATION RESULTS

Comments on the Actuarial Valuation

Purpose

At your request, we have performed an actuarial valuation of the North Dakota Public Employees Retirement System as of July 1, 2024:

- To determine the funding status of the System as of the actuarial valuation date;
- To determine the ADEC for the fiscal year beginning July 1, 2024;
- To determine the state employer contribution rate for 2026 and 2027 for the Main System; and
- To provide other data required by NDPERS.

Pension plan financial reporting under GASB Statement No. 67 is provided in Section D of this report. Employer financial reporting under GASB Statement No. 68 is provided in a separate report.

Membership Data

We received the data from the North Dakota Public Employees Retirement System Staff. We performed certain checks for reasonableness and found the data to be complete and reliable for actuarial valuation purposes. However, we did not audit the data.

A total of 25,799 active members (including the Main System, Judges and Public Safety) were included in the actuarial valuation as of July 1, 2024. Between the 2023 and 2024 actuarial valuations, the number of active employees increased by 780 members, or 3.1 percent. The average annual actuarial valuation pay increased by 7.0 percent, from \$52,691 to \$56,395 between the 2023 and 2024 actuarial valuations. There were 6,031 active members who were eligible for retirement (normal, early or Rule of 85, 88 or 90) as of July 1, 2024.

The number of benefit recipients increased from 14,997 to 15,632, or 4.2 percent, since the last actuarial valuation. The average monthly benefit increased by 1.9 percent, from \$1,436 to \$1,463. During the year ending June 30, 2024, there were 1,073 members awarded a benefit.

There were 8,457 inactive members as of July 1, 2024, who were vested and elected to receive a deferred benefit. The average monthly deferred benefit is \$546. There were 10,210 inactive members as of July 1, 2024, who were not vested or elected to receive a refund of contributions.

Section C summarizes the membership data.

Plan Provisions

Main System

Effective January 1, 2025, the Main System is closed to new members. Employees newly enrolled into the system on January 1, 2025 and later will participate in a new Defined Contribution Plan. This change does not have an immediate impact on the valuation results as of July 1, 2024, because members currently enrolled in the Main Plan are not impacted by the future closure of the Plan. The closure of the Plan is reflected in the GASB projections.



Comments on the Actuarial Valuation

State employees participating in the Main System on January 1, 2025 who are at least age 18 with 5 years or less of participation will be eligible to irrevocably elect to transfer to the existing DC Plan during a three-month election period ending March 31, 2025. For members who elect to transfer to the existing DC Plan, NDPERS will transfer a lump sum from the Main System to the DC Plan based on the actuarial present value of the accrued benefit as of January 1, 2025, plus interest from January 1, 2025 to the date of transfer. The state employer of an employee who elects to transfer to the existing DC Plan shall contribute an additional amount of \$3,333 annually for up to three years, provided the employee continues employment.

The liability released by members electing to transfer to the DC Plan is expected to be greater than the amount of assets transferred to the DC Plan. We estimated a savings of \$19.8 million in the actuarial accrued liability as of July 1, 2024. The estimate assumes that 50 percent of eligible current members would elect to transfer to the DC Plan in 2025. This is only an estimate; actual costs will depend on the members electing to transfer to the DC Plan in 2025 as well as their liabilities and lump sum transfer amounts.

Effective January 1, 2024, the employer contribution rate increased by 1.00 percent of pay, from 7.12 percent of pay to 8.12 percent (plus an additional 1.14 percent of pay for members hired after 2019). The state employer contribution for 2026 and later was changed to be the amount sufficient to fund the Main System on an actuarial basis, with the amortization of the unfunded liability determined on a level percent of payroll basis over a closed period beginning on January 1, 2026 and ending June 30, 2056.

Actuarial Assumptions and Methods

This report was prepared using actuarial assumptions adopted by the Board as authorized under North Dakota Administrative Code Section 71-02. Most of the actuarial assumptions used in the valuation were based on an experience review for the period from July 1, 2014 to July 1, 2019, and were adopted for first use commencing with the actuarial valuation as of July 1, 2020. In addition, the investment return assumption was decreased from 7.00 percent to 6.50 percent beginning with the July 1, 2022 actuarial valuation. All actuarial assumptions used in this report are reasonable for the purposes of this actuarial valuation.

Section E outlines the actuarial assumptions and methods used in the actuarial valuation.

The assumption for administrative expenses is equal to the prior years' administrative expenses, adjusted for inflation. In total, this amount has increased from \$2,730,160 to \$3,052,962.

The Actuarially Determined Employer Contribution (ADEC) rate is calculated using a 20-year open period, level percentage of payroll amortization method. The remaining amortization period will be reset to 20 years in each future actuarial valuation.

For the Main System, the state employer contribution for 2026 and later will be changed to be the amount sufficient to fund the Main System on an actuarial basis, with the amortization of the unfunded liability determined on a level percent of payroll basis over a closed period beginning on January 1, 2026 and ending June 30, 2056.



Comments on the Actuarial Valuation

Plan Asset Return

On a market value basis, NDPERS assets had an investment return of approximately 8.96 percent (net of investment expenses). On an actuarial value of asset basis, NDPERS assets had an investment return of approximately 6.96 percent, which compares to the prior year assumed rate of return of 6.50 percent. The actuarial value of assets is currently 99.6 percent of the market value of assets. There are \$18,096,136 in net asset gains currently being deferred that will be phased into the actuarial value of assets over the next four years.

Gain/Loss Analysis

During the plan year ending June 30, 2024, the unfunded actuarial accrued liability (“UAAL”) increased from \$1,928,577,068 as of July 1, 2023, to \$1,971,777,355 as of July 1, 2024, which is an increase of \$43,200,287. The key factors contributing to the increase in the UAAL were the difference between the statutory contribution and the actuarially determined contribution rate, salary experience that was greater than expected and the increase resulting from new entrants to the system. These losses were partially offset by an additional one-time cash infusion of \$135 million and the recognition of asset gains. The unfunded actuarial accrued liability based on the market value of assets decreased from \$1,984,184,835 to \$1,953,681,219.

Funded Ratio

The funded ratio measures the portion of the actuarial accrued liability (calculated based on the actuarial assumptions disclosed in this report) that is currently funded. The total PERS funded ratio is 68.3 percent on an actuarial value of assets basis and 68.6 percent on a market value of assets basis as of July 1, 2024.

The funded ratio as of July 1, 2024 is 67.7 percent for the Main System, 112.1 percent for the Judges System, 67.9 percent for the Public Safety plan with prior Main System service, and 94.9 percent for the Public Safety plan without prior Main System service. The funded ratios based on the market value of assets are approximately 0.3 to 0.5 percentage points higher than the funded ratios based on the actuarial value of assets.

The funded ratio and unfunded actuarial accrued liability are appropriate for assessing the need for and the amount of future unfunded liability contributions (excludes normal cost contributions). They are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the System’s benefit obligations.

Employer Contributions

The Actuarially Determined Employer Contribution (ADEC) rate is calculated as the normal cost contribution (to fund benefits accruing during the year) plus a contribution to amortize the unfunded liability. The unfunded liability contribution rate is calculated using a 20-year open period, level percentage of payroll amortization method. The remaining amortization period will be reset to 20 years in each future actuarial valuation. If employers contributed the ADEC, the contribution rate would be



Comments on the Actuarial Valuation

expected to gradually decrease using a 20-year open amortization period as the funded ratio gradually increased. An open amortization period is expected to gradually improve the funded ratio. However, the funded ratio is not expected to reach 100 percent under this method (assuming no actuarial gains or losses) because the remaining unfunded liability at each future actuarial valuation date is re-amortized over a new 20-year period.

Except as noted below for the Main System, the contributions currently made by employers are based on fixed contribution rates set by statute (and not based on the ADEC).

Main System

Effective January 1, 2024, the Main System employer contribution rate increased by 1.00 percent of pay, from 7.12 percent of pay to 8.12 percent (plus an additional 1.14 percent of pay for members hired after 2019). The state employer contribution for 2026 and later will change to be the amount sufficient to fund the Main System on an actuarial basis, with the amortization of the unfunded liability determined on a level percent of payroll basis over a closed period beginning on January 1, 2026 and ending June 30, 2056.

The employer contribution rate for 2026 and 2027, based on the valuation as of July 1, 2024, is 11.17 percent of total Main System and Defined Contribution pay, or approximately \$163.6 million (in 2026 dollars). When the fixed rate contributions for Political Subdivisions are reflected, the remaining obligation for State Employers is \$107.5 million or 14.46 percent of Main System and Defined Contribution State pay. For comparison purposes, if funding continued to be based on fixed statutory rates instead of an actuarial rate, the 2026 state employer contribution rate would have been approximately 8.54 percent of pay, reflecting a difference of 5.92 percent of pay.

"Spillover" contributions to the Main System from employers of Defined Contribution participants are not reflected. This source of revenue will be recognized after receipt.

In August 2023, the plan received a one-time cash infusion equal to \$135 million.

The Main System is also a potential recipient of future state contributions of \$65 million per biennium, contingent upon state tax revenues. In October 2024, the plan received a cash infusion equal to \$65 million. This contribution does not have an immediate actuarial impact, but is reflected in projections as a one-time cash infusion. Future cash infusions will be reflected when received.

Judges

The statutory contribution rate is significantly higher than the actuarial contribution rate for Judges.

Public Safety with Prior Main System Service

Effective January 1, 2024, the employer contribution rate increased by 1.59 percent of pay, from 9.81 percent of pay to 11.40 percent. Contribution rates are higher for BCI employers and peace officers employed by the State. The statutory contribution rate is slightly lower than the actuarial contribution rate.



Comments on the Actuarial Valuation

Public Safety without Prior Main System Service

Effective January 1, 2024, the employer contribution rate increased by 1.23 percent of pay, from 7.93 percent of pay to 9.16 percent. The statutory contribution rate is slightly higher than the actuarial contribution rate.

Historical Trends

The funded ratio (based on the actuarial value of assets) for the total PERS increased over the past 9 years from a historical low of 66.7 percent in 2016, to the current funded ratio of 68.3 percent.

Risks Associated with Measuring the Accrued Liability and Contributions

The determination of the accrued liability and the statutory and actuarially determined contribution requires the use of actuarial assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the actuarial assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the statutory and actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

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 actuarial assumptions; changes in economic or demographic actuarial assumptions due to changing conditions; 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 scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. **Investment Risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability Mismatch** – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution Risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll or other relevant contribution base;
4. **Salary and Payroll Risk** – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. **Longevity Risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed; and
6. **Other Demographic Risks** – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

Risk Measures

The statutory contribution may be considered as a minimum contribution that complies with State statute. The timely receipt of contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made in accordance with the funding policy do not necessarily guarantee benefit security.

Plan Maturity Measures

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	2020	2021	2022	2023	2024
Ratio of the Market Value of Assets to Total Payroll	2.70	3.25	2.91	2.92	2.93
Ratio of Actuarial Accrued Liability to Payroll	4.04	4.11	4.43	4.42	4.27
Ratio of Actives to Retirees and Beneficiaries	1.89	1.81	1.74	1.67	1.65
Ratio of Net Cash Flow to Market Value of Assets	-1.38%	-1.25%	-1.59%	-1.92%	1.73%

Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10 percent of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time. The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

Ratio of Actives to Retirees and Beneficiaries

A young plan with many active members and few retirees will have a high ratio of actives to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.



Risk Measures

Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means benefits and expenses exceed contributions, and existing funds may be used to make benefit payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

Summary of Actuarial Valuation Results (Total PERS)

		July 1, 2023	July 1, 2024
		Results	Results
Membership			
Data	Active Members	25,019	25,799
	Inactive Vested and Non-Vested Members	17,602	18,667
	Retirees and Beneficiaries	14,997	15,632
	TOTAL	57,618	60,098
Plan			
Liabilities	Actuarial Accrued Liability:		
	Active Members	\$ 2,695,683,542	\$ 2,915,490,206
	Inactive Vested and Non-Vested Members	407,291,657	423,659,926
	Retirees and Beneficiaries	2,725,150,378	2,879,818,436
	TOTAL	\$ 5,828,125,577	\$ 6,218,968,568
	Actuarial Value of Assets at Valuation Date	\$ 3,899,548,509	\$ 4,247,191,213
	Unfunded (Overfunded) Actuarial Accrued Liability	\$ 1,928,577,068	\$ 1,971,777,355
	Funded Position of Plan's Actuarial Accrued Liability¹	66.9 %	68.3 %
Actuarially Determined Employer Contribution (ADEC)		Fiscal Year	Fiscal Year
Based on Actuarial Value of Assets and 20-year Open Amortization Period		2024	2025
	Annual Normal Cost as of Valuation Date	\$ 169,457,318	\$ 185,874,284
	Normal Cost Expense Load	2,730,160	3,052,962
	Amortization Payment	128,771,715	131,656,341
	Total Actuarial Contribution Requirement	300,959,193	320,583,587
	Expected Employee Contributions	96,484,524	106,240,548
	ADEC	\$ 204,474,669	\$ 214,343,039
	Projected Annual Compensation	\$ 1,399,434,646	\$ 1,544,827,229
ADEC			
% of Projected Annual Compensation			
	Main System	14.86%	14.07%
	Judges	11.26%	11.81%
	Public Safety with prior Main System service	12.37%	12.63%
	Public Safety without prior Main System service	9.14%	8.81%
	Total PERS (Combined)	14.61%	13.87%
Statutory Employer			
Contribution % of Projected Annual Compensation³			
	Main System ²	7.43%	8.52%
	Judges	17.52%	17.52%
	Public Safety with prior Main System service	9.81%	12.27%
	Public Safety without prior Main System service	7.93%	9.16%
	Total PERS (Combined)	7.66%	8.89%

¹ Equals the ratio of the actuarial value of assets to the total actuarial accrued liability.

² Weighted average of 8.12 percent for members hired before 1/1/2020 and 9.26% for members hired on or after 1/1/2020.

³ Contribution deficits do not reflect the future actuarial contributions beginning in 2026 for the Main System or the \$65 million cash infusion paid to the Main System in October 2024.



Summary of Actuarial Valuation Results

Main System

Main System Results		
	July 1, 2023	July 1, 2024
Membership Data		
Active Members	23,678	23,839
Inactive Vested and Non-Vested Members	16,914	17,864
Retirees and Beneficiaries	14,755	15,370
TOTAL	55,347	57,073
Plan Liabilities		
Actuarial Accrued Liability:		
Active Members	\$ 2,518,534,600	2,646,936,632
Inactive Vested and Non-Vested Members	391,856,248	404,054,161
Retirees and Beneficiaries	2,648,879,907	2,797,424,254
TOTAL	5,559,270,755	5,848,415,047
Actuarial Value of Assets at Valuation Date	\$ 3,683,545,963	3,961,181,475
Unfunded (Overfunded) Actuarial Accrued Liability	\$ 1,875,724,792	1,887,233,572
Funded Position of Plan's Actuarial Accrued Liability¹	66.26%	67.73%
Market Value of Assets at Valuation Date	\$ 3,631,018,404	3,978,059,001
Unfunded (Overfunded) Actuarial Accrued Liability based on Market Value of Assets	\$ 1,928,252,351	1,870,356,046
Funded Position of Plan's Actuarial Accrued Liability based on Market Value of Assets	65.31%	68.02%
Actuarially Determined Employer Contribution (ADEC) based on Actuarial Value of Assets and 20-year Open Amortization Period		
	Fiscal Year 2024	Fiscal Year 2025
Annual Normal Cost as of Valuation Date	\$ 152,758,636	\$ 164,125,008
Normal Cost Expense Load	2,610,437	2,877,923
Amortization Payment	125,263,078	126,031,648
Total Actuarial Contribution Requirement	280,632,151	293,034,579
Expected Employee Contributions	89,855,719	97,375,381
ADEC	\$ 190,776,432	\$ 195,659,198
Projected Annual Compensation ²	\$ 1,283,653,135	\$ 1,391,076,878
ADEC Rate	14.86%	14.07%
Statutory Contribution Rate ³	7.43%	8.52%
Statutory Contribution Deficit/(Surplus)	7.43%	5.55%
Actuarially Determined Employer Contribution (ADEC) based on Market Value of Assets and 20-year Open Amortization Period		
ADEC Rate	15.13%	13.99%
Statutory Contribution Deficit/(Surplus)	7.70%	5.47%

¹ Equals the ratio of the actuarial value of assets to the total actuarial accrued liability.

² Projected annual compensation for Fiscal Year 2024 reflects the transfer of members to the Public Safety State Employees group.

³ Contribution deficits do not reflect the future actuarial contributions beginning in 2026 or the \$65 million cash infusion paid to the Main System in October 2024.



Summary of Actuarial Valuation Results Main System

Main System Results - Employer Contributions for 2026				
	% of Projected Main System Pay	% of Projected Main System and Defined Contribution Pay	\$ in 2026	
Total Gross Normal Cost	12.01%	11.01%	\$	161,296,200
Amortization Payment*	7.17%	6.58%	\$	96,330,046
Total Actuarial Contribution Requirement	19.18%	17.59%	\$	257,626,246
Expected Employee Contributions	7.00%	6.42%	\$	94,011,107
Employer Actuarial Contribution Requirement	12.18%	11.17%	\$	163,615,139
Projected Payroll				
Political Subdivision Main System Members			\$	660,708,909
Political Subdivision DC Members			\$	60,405,980
State Employer Main System Members			\$	682,306,913
State Employer DC Members			\$	61,321,959
Main System and Defined Contribution			\$	1,464,743,761
Employer Contribution by Employer Type				
Political Subdivisions (Fixed Rate)	8.49%		\$	56,075,328
State Employers (Remaining Obligation)		14.46%	\$	107,539,811
Total			\$	163,615,139
Contributions to be Made By State Employers				
State Employer Contribution Rate		14.46%		
Projected Blended Fixed Rate		8.54%		
Additional State Contribution Requirement		5.92%	\$	44,015,783

*Based on projected unfunded liability as of January 1, 2026, reflecting \$65 million cash infusion in October 2024, and level percent of payroll (including Defined Contribution Plan payroll) amortization over a closed period beginning on January 1, 2026 and ending June 30, 2056.



Summary of Actuarial Valuation Results

Judges

Judges Results		
	July 1, 2023	July 1, 2024
Membership Data		
Active Members	57	60
Inactive Vested and Non-Vested Members	3	1
Retirees and Beneficiaries	66	67
TOTAL	126	128
Plan Liabilities		
Actuarial Accrued Liability:		
Active Members	\$ 26,582,203	30,816,521
Inactive Vested and Non-Vested Members	882,982	200,614
Retirees and Beneficiaries	32,099,873	31,661,078
TOTAL	59,565,058	62,678,213
Actuarial Value of Assets at Valuation Date	\$ 67,034,043	70,268,531
Unfunded (Overfunded) Actuarial Accrued Liability	\$ (7,468,985)	(7,590,318)
Funded Position of Plan's Actuarial Accrued Liability ¹		
	112.54%	112.11%
Market Value of Assets at Valuation Date	\$ 66,078,134	70,567,926
Unfunded (Overfunded) Actuarial Accrued Liability based on Market Value of Assets	\$ (6,513,076)	(7,889,713)
Funded Position of Plan's Actuarial Accrued Liability based on Market Value of Assets		
	110.93%	112.59%
Actuarially Determined Employer Contribution (ADEC) based on Actuarial Value of Assets and 20-year Open Amortization Period		
	Fiscal Year 2024	Fiscal Year 2025
Annual Normal Cost as of Valuation Date	\$ 2,284,204	\$ 2,536,099
Normal Cost Expense Load	11,292	29,919
Amortization Payment	(519,687)	(528,129)
Total Actuarial Contribution Requirement	1,775,809	2,037,889
Expected Employee Contributions	737,871	823,213
ADEC	\$ 1,037,938	\$ 1,214,676
Projected Annual Compensation	\$ 9,223,390	\$ 10,290,160
ADEC Rate	11.26%	11.81%
Statutory Contribution Rate	17.52%	17.52%
Statutory Contribution Deficit/(Surplus)	-6.26%	-5.71%
Actuarially Determined Employer Contribution (ADEC) based on Market Value of Assets and 20-year Open Amortization Period		
ADEC Rate	11.98%	11.61%
Statutory Contribution Deficit/(Surplus)	-5.54%	-5.91%

¹ Equals the ratio of the actuarial value of assets to the total actuarial accrued liability.

Summary of Actuarial Valuation Results

Public Safety with Prior Main System Service

Public Safety with Prior Main System Service System Results		
	July 1, 2023	July 1, 2024
Membership Data		
Active Members	1,044	1,649
Inactive Vested and Non-Vested Members	499	590
Retirees and Beneficiaries	158	168
TOTAL	1,701	2,407
Plan Liabilities		
Actuarial Accrued Liability:		
Active Members	\$ 133,792,363	219,899,965
Inactive Vested and Non-Vested Members	11,842,678	16,126,912
Retirees and Beneficiaries	41,390,463	46,523,779
TOTAL	187,025,504	282,550,656
Actuarial Value of Assets at Valuation Date	\$ 128,273,097	191,719,801
Unfunded (Overfunded) Actuarial Accrued Liability	\$ 58,752,407	90,830,855
Funded Position of Plan's Actuarial Accrued Liability ¹		
	68.59%	67.85%
Market Value of Assets at Valuation Date	\$ 126,443,916	192,536,667
Unfunded (Overfunded) Actuarial Accrued Liability based on Market Value of Assets	\$ 60,581,588	90,013,989
Funded Position of Plan's Actuarial Accrued Liability based on Market Value of Assets		
	67.61%	68.14%
Actuarially Determined Employer Contribution (ADEC) based on Actuarial Value of Assets and 20-year Open Amortization Period		
	Fiscal Year 2024	Fiscal Year 2025
Annual Normal Cost as of Valuation Date	\$ 12,179,130	\$ 16,865,353
Normal Cost Expense Load	84,273	121,332
Amortization Payment	3,923,554	6,065,790
Total Actuarial Contribution Requirement	16,186,957	23,052,475
Expected Employee Contributions	5,002,904	7,096,999
ADEC	\$ 11,184,053	\$ 15,955,476
Projected Annual Compensation ²	\$ 90,412,122	\$ 126,279,195
ADEC Rate	12.37%	12.63%
Statutory Contribution Rate	9.81%	12.27%
Statutory Contribution Deficit/(Surplus)	2.56%	0.36%
Actuarially Determined Employer Contribution (ADEC) based on Market Value of Assets and 20-year Open Amortization Period		
ADEC Rate	12.50%	12.59%
Statutory Contribution Deficit/(Surplus)	2.69%	0.32%

¹ Equals the ratio of the actuarial value of assets to the total actuarial accrued liability.

² Projected annual compensation for Fiscal Year 2024 reflects the transfer of members to the Public Safety State Employees group.



Summary of Actuarial Valuation Results

Public Safety without Prior Main System Service

Public Safety without Prior Main System Service System Results		
	July 1, 2023	July 1, 2024
Membership Data		
Active Members	240	251
Inactive Vested and Non-Vested Members	186	212
Retirees and Beneficiaries	18	27
TOTAL	444	490
Plan Liabilities		
Actuarial Accrued Liability:		
Active Members	\$ 16,774,376	17,837,088
Inactive Vested and Non-Vested Members	2,709,749	3,278,239
Retirees and Beneficiaries	2,780,135	4,209,325
TOTAL	22,264,260	25,324,652
Actuarial Value of Assets at Valuation Date	\$ 20,695,406	24,021,406
Unfunded (Overfunded) Actuarial Accrued Liability	\$ 1,568,854	1,303,246
Funded Position of Plan's Actuarial Accrued Liability ¹		
	92.95%	94.85%
Market Value of Assets at Valuation Date	\$ 20,400,288	24,123,755
Unfunded (Overfunded) Actuarial Accrued Liability based on Market Value of Assets	\$ 1,863,972	1,200,897
Funded Position of Plan's Actuarial Accrued Liability based on Market Value of Assets		
	91.63%	95.26%
Actuarially Determined Employer Contribution (ADEC) based on Actuarial Value of Assets and 20-year Open Amortization Period		
	Fiscal Year 2024	Fiscal Year 2025
Annual Normal Cost as of Valuation Date	\$ 2,235,348	\$ 2,347,824
Normal Cost Expense Load	24,158	23,788
Amortization Payment	104,770	87,032
Total Actuarial Contribution Requirement	2,364,276	2,458,644
Expected Employee Contributions	888,030	944,955
ADEC	\$ 1,476,246	\$ 1,513,689
Projected Annual Compensation	\$ 16,145,998	\$ 17,180,996
ADEC Rate	9.14%	8.81%
Statutory Contribution Rate ²	7.93%	9.16%
Statutory Contribution Deficit/(Surplus)	1.21%	-0.35%
Actuarially Determined Employer Contribution (ADEC) based on Market Value of Assets and 20-year Open Amortization Period		
ADEC Rate	9.26%	8.77%
Statutory Contribution Deficit/(Surplus)	1.33%	-0.39%

¹ Equals the ratio of the actuarial value of assets to the total actuarial accrued liability.

Actuarial Valuation Results

All PERS Plans

	Main System	%	Judges	%	Public Safety w/ Prior	%	Public Safety w/o Prior	%	Total	% of Payroll
Actuarial Valuation as of July 1, 2024										
Based on Actuarial Value of Assets										
Total Actuarial Accrued Liability	\$ 5,848,415,047		\$ 62,678,213		\$ 282,550,656		\$ 25,324,652		\$ 6,218,968,568	
Actuarial Value of Assets (AVA)	3,961,181,475		70,268,531		191,719,801		24,021,406		4,247,191,213	
Unfunded Actuarial Accrued Liability (UAAL)	1,887,233,572		(7,590,318)		90,830,855		1,303,246		1,971,777,355	
Funded Ratio (Actuarial Value of Assets)	67.7%		112.1%		67.9%		94.9%		68.3%	
Total Annual Gross Normal Cost	167,002,931	12.01%	2,566,018	24.94%	16,986,685	13.45%	2,371,612	13.80%	188,927,246	12.23%
Employee Contribution	97,375,381	7.00%	823,213	8.00%	7,096,999	5.62%	944,955	5.50%	106,240,548	6.88%
Annual Employer Normal Cost	69,627,550	5.01%	1,742,805	16.94%	9,889,686	7.83%	1,426,657	8.30%	82,686,698	5.35%
Amortization of Unfunded Liability ¹	126,031,648	9.06%	(528,129)	(5.13%)	6,065,790	4.80%	87,032	0.51%	131,656,341	8.52%
ADEC	\$ 195,659,198	14.07%	\$ 1,214,676	11.81%	\$ 15,955,476	12.63%	\$ 1,513,689	8.81%	\$ 214,343,039	13.87%
Statutory Employer Contribution ²	118,519,750	8.52%	1,802,836	17.52%	15,494,457	12.27%	1,573,779	9.16%	137,390,823	8.89%
Statutory Contribution Deficit/(Surplus)	77,139,448	5.55%	(588,160)	(5.71%)	461,019	0.36%	(60,090)	(0.35%)	76,952,216	4.98%
Employer UAAL Contribution from Statutory Rate	48,892,200	3.51%	60,031	0.58%	5,604,771	4.44%	147,122	0.86%	54,704,125	3.54%
Amortization Period from Statutory Rate (Years)	100+		None		22.5		10.4		100+	
Based on Market Value of Assets										
Market Value of Assets (MVA)	\$ 3,978,059,001		\$ 70,567,926		\$ 192,536,667		\$ 24,123,755		\$ 4,265,287,349	
Unfunded Actuarial Accrued Liability (UAAL)	1,870,356,046		(7,889,713)		90,013,989		1,200,897		1,953,681,219	
Funded Ratio (Market Value of Assets)	68.0%		112.6%		68.1%		95.3%		68.6%	
ADEC		13.99%		11.61%		12.59%		8.77%		13.79%
Amortization Period from Statutory Rate (Years)	100+		None		22.2		9.5		100+	
Actuarial Valuation as of July 1, 2023										
Based on Actuarial Value of Assets										
Total Actuarial Accrued Liability	\$ 5,559,270,755		\$ 59,565,058		\$ 187,025,504		\$ 22,264,260		\$ 5,828,125,577	
Actuarial Value of Assets (AVA)	3,683,545,963		67,034,043		128,273,097		20,695,406		3,899,548,509	
Unfunded Actuarial Accrued Liability (UAAL)	1,875,724,792		(7,468,985)		58,752,407		1,568,854		1,928,577,068	
Funded Ratio (Actuarial Value of Assets)	66.3%		112.5%		68.6%		93.0%		66.9%	
Total Annual Gross Normal Cost	155,369,073	12.10%	2,295,496	24.89%	12,263,403	13.56%	2,259,506	13.99%	172,187,478	12.30%
Employee Contribution	89,855,719	7.00%	737,871	8.00%	5,002,904	5.53%	888,030	5.50%	96,484,524	6.89%
Annual Employer Normal Cost	65,513,354	5.10%	1,557,625	16.89%	7,260,499	8.03%	1,371,476	8.49%	75,702,954	5.41%
Amortization of Unfunded Liability ¹	125,263,078	9.76%	(519,687)	(5.63%)	3,923,554	4.34%	104,770	0.65%	128,771,715	9.20%
ADEC	\$ 190,776,432	14.86%	\$ 1,037,938	11.26%	\$ 11,184,053	12.37%	\$ 1,476,246	9.14%	\$ 204,474,669	14.61%
Statutory Employer Contribution	95,375,428	7.43%	1,615,938	17.52%	8,869,429	9.81%	1,280,378	7.93%	107,141,173	7.66%
Statutory Contribution Deficit/(Surplus)	95,401,004	7.43%	(578,000)	(6.26%)	2,314,624	2.56%	195,868	1.21%	97,333,496	6.95%
Employer UAAL Contribution from Statutory Rate	29,862,074	2.33%	58,313	0.63%	1,608,930	1.78%	(91,098)	(0.56%)	31,438,219	2.25%
Amortization Period from Statutory Rate (Years)	100+		None		100+		100+		100+	
Based on Market Value of Assets										
Market Value of Assets (MVA)	\$ 3,631,018,404		\$ 66,078,134		\$ 126,443,916		\$ 20,400,288		\$ 3,843,940,742	
Unfunded Actuarial Accrued Liability (UAAL)	1,928,252,351		(6,513,076)		60,581,588		1,863,972		1,984,184,835	
Funded Ratio (Market Value of Assets)	65.3%		110.9%		67.6%		91.6%		66.0%	
ADEC		15.13%		11.98%		12.50%		9.26%		14.88%
Amortization Period from Statutory Rate (Years)	100+		None		100+		100+		100+	
Changes from Actuarial Valuation as of July 1, 2023 to July 1, 2024										
AVA Unfunded Actuarial Accrued Liability (UAAL)	\$ 11,508,780		\$ (121,333)		\$ 32,078,449		\$ (265,607)		\$ 43,200,287	
MVA Unfunded Actuarial Accrued Liability (UAAL)	(57,896,305)		(1,376,637)		29,432,402		(663,074)		(30,503,616)	
AVA Funded Ratio	1.4%		-0.4%		-0.7%		1.9%		1.4%	
MVA Funded Ratio	2.7%		1.7%		0.5%		3.6%		2.6%	
ADEC Rate (AVA)		-0.79%		0.55%		0.26%		-0.33%		-0.74%
ADEC Rate (MVA)		-1.14%		-0.37%		0.09%		-0.49%		-1.09%

¹ Amortization as a level percentage of payroll over a 20-year open period. Total payroll assumed to increase 3.00% annually for the Judges and 3.50% for the Main System and Public Safety groups.

² Contribution deficits and amortization periods do not reflect the future actuarial contributions beginning in 2026 for the Main System or the \$65 million cash infusion paid to the Main System in October 2024.



Actuarial Valuation Results

All PERS Plans

Valuation as of July 1, 2024

July 1, 2023

	Main System	%	Judges	%	Public Safety w/ Prior	%	Public Safety w/o Prior	%	Total	% of Payroll	Total	% of Payroll
Active Members												
Number	23,839		60		1,649		251		25,799		25,019	
Average Age	45.8		56.2		38.0		37.6		45.2		45.4	
Average Years of Benefit Service	8.9		9.9		7.6		4.9		8.8		9.0	
Average Years of Vesting Service	8.9		16.0		9.1		6.5		8.9		9.1	
Total Payroll	\$ 1,311,798,089		\$ 9,990,447		\$ 117,265,263		\$ 15,868,015		\$ 1,454,921,813		\$ 1,318,276,116	
Projected Annual Compensation	\$ 1,391,076,878		\$ 10,290,160		\$ 126,279,195		\$ 17,180,996		\$ 1,544,827,229		\$ 1,399,434,646	
Inactive Vested and Non-Vested Members												
Number	17,864		1		590		212		18,667		17,602	
Total Annualized Benefits (Vested)	\$ 52,319,642		\$ 31,281		\$ 2,529,140		\$ 500,133		\$ 55,380,196		\$ 52,888,914	
Retired Members and Beneficiaries												
Number	15,370		67		168		27		15,632		14,997	
Total Annualized Benefits	\$ 266,123,823		\$ 3,946,741		\$ 3,984,351		\$ 334,714		\$ 274,389,628		258,367,734	
Total Membership	57,073		128		2,407		490		60,098		57,618	
Actuarial Accrued Liability												
Active Members	\$ 2,646,936,632		\$ 30,816,521		\$ 219,899,965		\$ 17,837,088		\$ 2,915,490,206		\$ 2,695,683,542	
Inactive Vested and Non-Vested Members	404,054,161		200,614		16,126,912		3,278,239		423,659,926		407,291,657	
Retired Members and Beneficiaries	2,797,424,254		31,661,078		46,523,779		4,209,325		2,879,818,436		2,725,150,378	
Total	5,848,415,047		62,678,213		282,550,656		25,324,652		6,218,968,568		5,828,125,577	
Actuarial Value of Assets	\$ 3,961,181,475		\$ 70,268,531		\$ 191,719,801		\$ 24,021,406		\$ 4,247,191,213		\$ 3,899,548,509	
Unfunded Actuarial Accrued Liability	\$ 1,887,233,572		\$ (7,590,318)		\$ 90,830,855		\$ 1,303,246		\$ 1,971,777,355		\$ 1,928,577,068	
Funded Ratio (Actuarial Value of Assets)	67.7%		112.1%		67.9%		94.9%		68.3%		66.9%	
Annual Gross Normal Cost												
Benefits	\$ 164,125,008	11.80%	\$ 2,536,099	24.65%	\$ 16,865,353	13.36%	\$ 2,347,824	13.67%	\$ 185,874,284	12.03%	\$ 169,457,318	12.11%
Expenses of Administration	2,877,923	0.21%	29,919	0.29%	121,332	0.09%	23,788	0.13%	3,052,962	0.20%	2,730,160	0.19%
Total	167,002,931	12.01%	2,566,018	24.94%	16,986,685	13.45% ²	2,371,612	13.80%	188,927,246	12.23%	172,187,478	12.30%
Amortization of Unfunded Liability ¹	\$ 126,031,648	9.06%	\$ (528,129)	(5.13%)	\$ 6,065,790	4.80%	\$ 87,032	0.51%	\$ 131,656,341	8.52%	\$ 128,771,715	9.20%
Actuarial Contribution Requirement												
Employer Portion	\$ 195,659,198	14.07%	\$ 1,214,676	11.81%	\$ 15,955,476	12.63%	\$ 1,513,689	8.81%	\$ 214,343,039	13.87%	\$ 204,474,669	14.61%
Employee Portion	97,375,381	7.00%	823,213	8.00%	7,096,999	5.62%	944,955	5.50%	106,240,548	6.88%	96,484,524	6.89%
Total	293,034,579	21.07%	2,037,889	19.81%	23,052,475	18.25%	2,458,644	14.31%	320,583,587	20.75%	300,959,193	21.50%
ADEC	\$ 195,659,198	14.07%	\$ 1,214,676	11.81%	\$ 15,955,476	12.63%	\$ 1,513,689	8.81%	\$ 214,343,039	13.87%	\$ 204,474,669	14.61%
Statutory Employer Contribution ³	118,519,750	8.52%	1,802,836	17.52%	15,494,457	12.27%	1,573,779	9.16%	137,390,823	8.89%	107,141,173	7.66%
Statutory Contribution Deficit/(Surplus)	77,139,448	5.55%	(588,160)	(5.71%)	461,019	0.36%	(60,090)	(0.35%)	76,952,216	4.98%	97,333,496	6.95%

¹ Amortization as a level percentage of payroll over a 20-year open period. Total payroll assumed to increase 3.00% annually for the Judges and 3.50% for the Main System and Public Safety groups.

² Total Gross Normal Cost for the Bureau of Criminal Investigation (BCI) members is 21.52% of pay. When employee contributions of 7.00% of pay are reflected, the Employer Normal Cost for BCI members is 14.52% of pay.

³ Contribution deficits and amortization periods do not reflect the future actuarial contributions beginning in 2026 for the Main System or the \$65 million cash infusion paid to the Main System in October 2024.



Actuarial Valuation Results

Gain/Loss Analysis

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

	Main System	Judges	Public Safety with Prior Main System Service	Public Safety without Prior Main System Service	Total
Unfunded liability at previous valuation	\$ 1,875,724,792	\$ (7,468,985)	\$ 58,752,407	\$ 1,568,854	\$ 1,928,577,068
Expected unfunded liability at current valuation					
Normal cost for plan year	155,369,073	2,295,496	12,263,403	2,259,506	172,187,478
Interest on unfunded liability and normal cost	126,892,115	(412,055)	4,211,193	174,253	130,865,506
Contributions using ADEC with interest to current valuation date	289,609,117	1,832,614	16,704,751	2,439,905	310,586,387
Total expected change in unfunded liability at current valuation	(7,347,929)	50,827	(230,155)	(6,146)	(7,533,403)
Total expected unfunded liability at current valuation	1,868,376,863	(7,418,158)	58,522,252	1,562,708	1,921,043,665
Change due to:					
Amount of contributions (based on statutory rate) ¹	(58,746,500)	(751,353)	(1,640,188)	131,713	(61,006,328)
Amount of administrative expenses	210,689	18,544	35,489	(922)	263,800
Recognition of asset (gains)/losses	(16,320,545)	(256,863)	(1,539,236)	(96,378)	(18,213,022)
Salary experience	90,984,790	988,135	1,929,899	(75,571)	93,827,253
Retirement experience	3,632,188	(462,577)	5,083	30,309	3,205,003
Withdrawal experience	(11,413,223)	214	(195,801)	(347,111)	(11,955,921)
Disability experience	388,270	(12,932)	(5,493)	(8,426)	361,419
Death in Service experience	(1,027,030)	(12,675)	31,887	(63,634)	(1,071,452)
Death After Retirement experience	(14,324,500)	315,599	(508,511)	33,302	(14,484,110)
New entrants ²	27,305,409	134,524	33,638,534	361,471	61,439,938
Data changes and other experience	(45,064)	(132,776)	556,940	(224,215)	154,885
Change in actuarial assumptions	-	-	-	-	-
Changes in plan provisions ³	(1,787,775)	-	-	-	(1,787,775)
Total change	18,856,709	(172,160)	32,308,603	(259,462)	50,733,690
Unfunded liability at current valuation	\$ 1,887,233,572	\$ (7,590,318)	\$ 90,830,855	\$ 1,303,246	\$ 1,971,777,355

RECONCILIATION OF ACTUARIAL EMPLOYER CONTRIBUTION RATE

	Main System	Judges	Public Safety with Prior Main System Service	Public Safety without Prior Main System Service
FY 2024 ADEC	14.86%	11.26%	12.37%	9.14%
Expected FY 2025 ADEC ¹	14.49%	11.45%	12.12%	9.12%
Expected FY 2025 ADEC with New Pay Base	13.93%	11.73%	11.91%	8.92%
Impact due to Pay Base	-0.56%	0.28%	-0.21%	-0.20%
Change due to:				
Amount of contributions (based on statutory rate) ¹	-0.28%	-0.51%	-0.09%	0.05%
Amount of administrative expenses	0.02%	0.19%	0.03%	-0.01%
Recognition of asset (gains)/losses	-0.08%	-0.17%	-0.08%	-0.04%
Salary experience	0.44%	0.67%	0.10%	-0.03%
Retirement experience	0.01%	-0.31%	0.00%	0.01%
Withdrawal experience	-0.05%	0.00%	-0.01%	-0.14%
Disability experience	0.00%	-0.01%	0.00%	0.00%
Death in Service experience	0.00%	-0.01%	0.00%	-0.03%
Death After Retirement experience	-0.07%	0.21%	-0.02%	0.02%
New entrants ²	0.13%	0.09%	0.81%	0.15%
Data changes and other experience	0.04%	-0.07%	-0.02%	-0.09%
Change in actuarial assumptions	0.00%	0.00%	0.00%	0.00%
Changes in plan provisions ³	-0.01%	0.00%	0.00%	0.00%
Total change	0.14%	0.08%	0.72%	-0.11%
FY 2025 ADEC	14.07%	11.81%	12.63%	8.81%
FY 2025 Statutory Employer Contribution Rate	8.52%	17.52%	12.27%	9.16%

¹ Expected actuarial contribution rate is based on contributions using the actuarial rate. The change due to amount and timing of contributions is based on the statutory contributions that were made compared to the actuarial contributions.

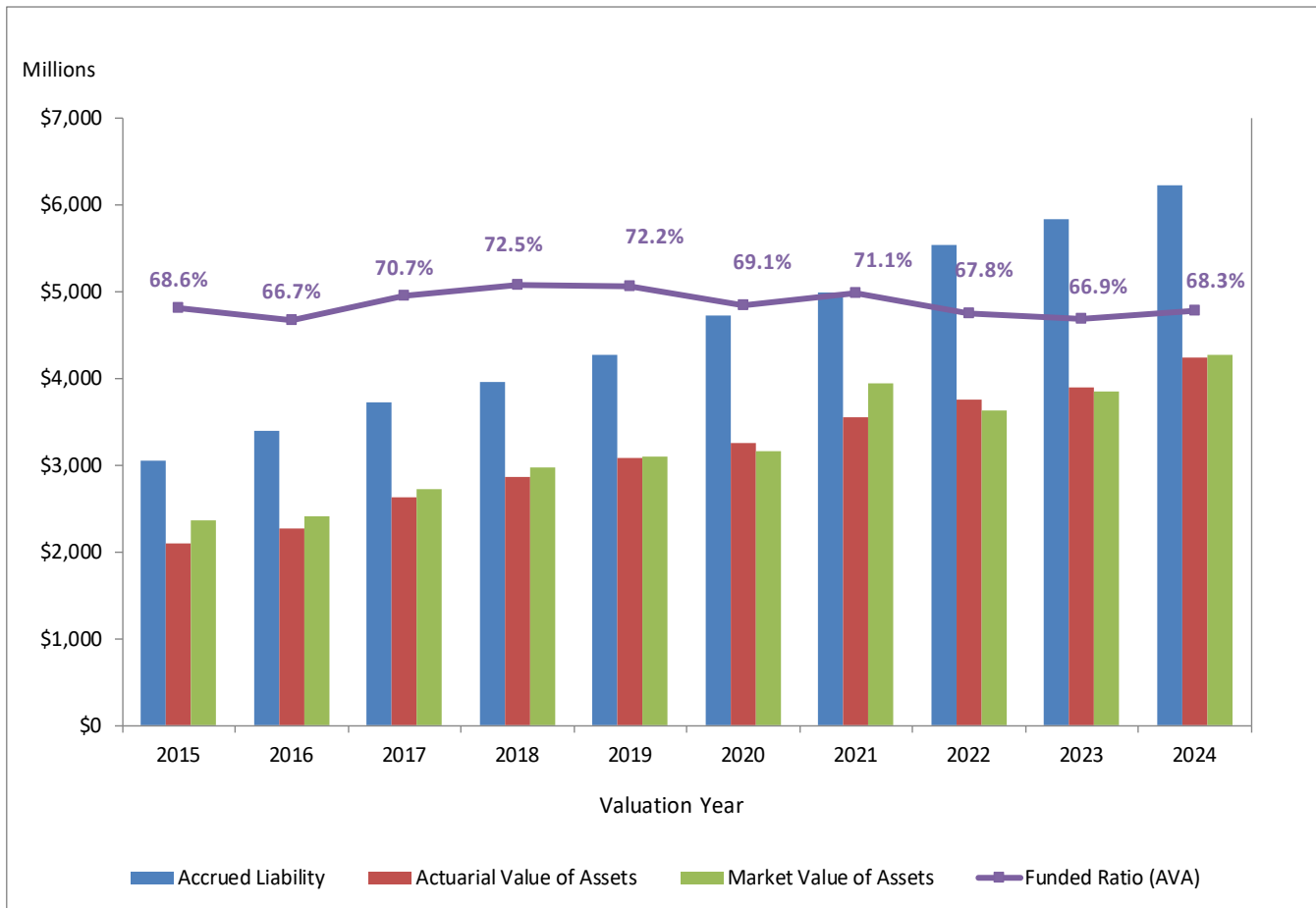
² New entrants change includes the net impact of liability and asset transfers.

³ For the Main System, the change in plan provisions is due to the change in the estimated impact of the DC transfer. Numbers may not add due to rounding.

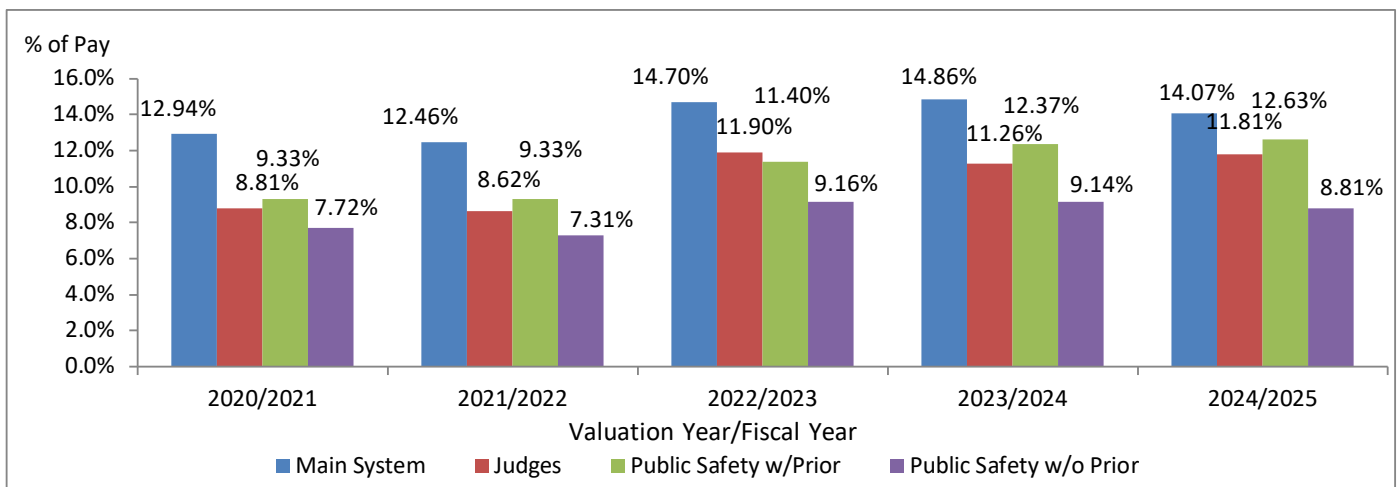


Historical Trends of Funded Ratio and Employer Contributions

Funded Ratio History



ADEC History



Actuarial Valuation Results

All PERS Plans

(\$ in Millions)

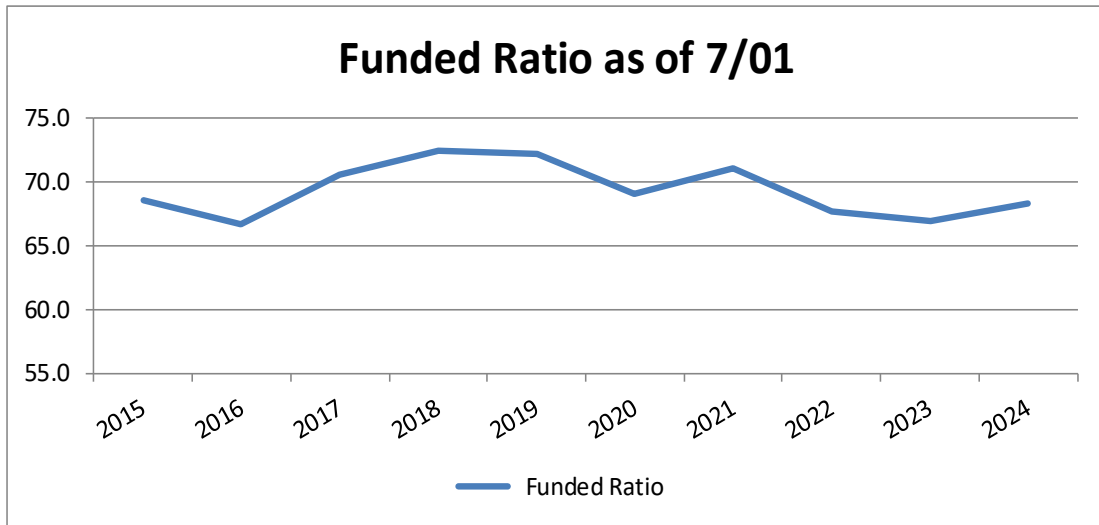
Valuation Date 7/1	Total Actuarial Accrued Liability	(1)	(2)	(3)	Actuarial Value of Assets	Portion (%) of Actuarial Accrued Liability		
		Active Member Contributions*	Retirees, Beneficiaries and Inactive Members	Active Members (Employer Financed Portion)		By Assets		
						(1)	(2)	(3)
2015	\$3,052.4	\$788.3	\$1,437.0	\$827.1	\$2,094.3	100%	91%	0%
2016	3,396.6	879.3	1,559.5	957.8	2,265.3	100%	89%	0%
2017	3,726.8	943.0	1,751.0	1,032.8	2,633.2	100%	97%	0%
2018	3,959.1	1,027.6	1,917.4	1,014.0	2,868.8	100%	96%	0%
2019	4,269.3	1,068.4	2,163.0	1,037.9	3,081.9	100%	93%	0%
2020	4,717.4	1,138.6	2,404.6	1,174.2	3,260.6	100%	88%	0%
2021	4,991.5	1,213.5	2,601.0	1,177.0	3,546.8	100%	90%	0%
2022	5,533.6	1,256.4	2,921.5	1,355.7	3,750.4	100%	85%	0%
2023	5,828.1	1,299.6	3,132.4	1,396.1	3,899.5	100%	83%	0%
2024	6,219.0	1,368.8	3,303.5	1,546.7	4,247.2	100%	87%	0%

*Includes vested employer contributions for members who have the Portability Enhancement Provision (PEP).



Funded Ratio History

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (UAAL) (b – a)	Funded Ratio (a / b)
7/1/2015	\$ 2,094,251,400	\$ 3,052,446,500	\$ 958,195,100	68.6 %
7/1/2016	2,265,277,641	3,396,565,467	1,131,287,826	66.7
7/1/2017	2,633,198,632	3,726,815,087	1,093,616,455	70.7
7/1/2018	2,868,788,729	3,959,094,976	1,090,306,247	72.5
7/1/2019	3,081,881,908	4,269,339,965	1,187,458,057	72.2
7/1/2020	3,260,582,816	4,717,407,497	1,456,824,681	69.1
7/1/2021	3,546,820,478	4,991,542,997	1,444,722,519	71.1
7/1/2022	3,750,359,666	5,533,579,175	1,783,219,509	67.8
7/1/2023	3,899,548,509	5,828,125,577	1,928,577,068	66.9
7/1/2024	4,247,191,213	6,218,968,568	1,971,777,355	68.3



Schedule of Funding Progress

Valuation Year	Actuarial Accrued Liabilities	Valuation Assets	Unfunded Actuarial Accrued Liabilities	Ratio of Assets to AAL	Active Member Payroll	UAAL as Percent of Active Member Payroll
2015	\$ 3,052,446,500	\$ 2,094,251,400	\$ 958,195,100	68.6%	\$ 973,536,402	98.4%
2016	3,396,565,467	2,265,277,641	1,131,287,826	66.7%	1,048,548,467	107.9%
2017	3,726,815,087	2,633,198,632	1,093,616,455	70.7%	1,063,371,798	102.8%
2018	3,959,094,976	2,868,788,729	1,090,306,247	72.5%	1,075,957,954	101.3%
2019	4,269,339,965	3,081,881,908	1,187,458,057	72.2%	1,098,416,146	108.1%
2020	4,717,407,497	3,260,582,816	1,456,824,681	69.1%	1,167,767,935	124.8%
2021	4,991,542,997	3,546,820,478	1,444,722,519	71.1%	1,213,675,937	119.0%
2022	5,533,579,175	3,750,359,666	1,783,219,509	67.8%	1,248,307,560	142.9%
2023	5,828,125,577	3,899,548,509	1,928,577,068	66.9%	1,318,276,116	146.3%
2024	6,218,968,568	4,247,191,213	1,971,777,355	68.3%	1,454,921,813	135.5%

Low-Default-Risk Obligation Measure

Actuarial Standards of Practice No. 4 (ASOP No. 4) was revised and reissued in December 2021 by the Actuarial Standards Board (ASB). It includes a new calculation called a “Low-Default-Risk Obligation Measure (LDROM)” to be prepared and issued annually for defined benefit pension plans. The transmittal memorandum for ASOP No. 4 includes the following explanation:

The ASB believes that the calculation and disclosure of this measure provides appropriate, useful information for the intended user regarding the funded status of a pension plan. The calculation and disclosure of this additional measure is not intended to suggest that this is the “right” liability measure for a pension plan. However, the ASB does believe that this additional disclosure provides a more complete assessment of a plan’s funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date.

The following information has been prepared in compliance with this new requirement. Unless otherwise noted, the measurement date, actuarial cost methods, and assumptions used are the same as for the funding valuation covered in this actuarial valuation report.

- A. Low-Default-Risk Obligation Measure of benefits earned as of the measurement date:
\$7,222,531,958
- B. Discount rate used to calculate the LDROM: FTSE Pension Liability Index – Intermediate Single Equivalent Rate of 5.32 percent as of June 30, 2024
- C. Other significant assumptions that differ from those used for the funding valuation: none
- D. Actuarial cost method used to calculate the LDROM: Entry Age Actuarial Cost Method
- E. Valuation procedures to value any significant plan provisions that are difficult to measure using traditional valuation procedures, and that differ from the procedures used in the funding valuation: none
- F. Commentary to help the intended user understand the significance of the LDROM with respect to the funded status of the plan, plan contributions, and the security of participant benefits: The LDROM is a market-based measurement of the pension obligation. It estimates the amount the plan would need to invest in low risk securities to provide the benefits with greater certainty. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan’s benefit obligation.

The difference between the two measures (Valuation and LDROM) is one illustration of the savings the sponsor anticipates by taking on the risk in a diversified portfolio.

SECTION B

ASSET EXHIBITS

Statement of Fiduciary Net Position (Total PERS)

	Fiscal Year Ending	
	June 30, 2023	June 30, 2024
Assets		
Cash	\$ 20,135,526	\$ 19,608,033
Receivables		
Contribution receivable	13,078,615	12,944,304
Interest receivable	7,983,009	8,978,952
Due from other fiduciary funds	-	-
Due from Uniform Group Insurance Plan	-	-
Due from other state agencies	-	-
Total receivables	21,061,624	21,923,256
Investments		
External Investment Pool	3,807,263,994	4,227,892,525
Equities	-	-
Fixed income	-	-
Real estate	-	-
Mutual funds	-	-
Annuities	-	-
Alternative investments	-	-
Invested cash	-	-
Total Investments	3,807,263,994	4,227,892,525
Prepaid expenses	-	-
Invested Securities Lending Collateral	26,778,457	62,523,660
Machinery & Equipment	4,459	3,663
Capital assets (net of depreciation/ amortization)	137,387	102,789
Total assets	3,875,381,447	4,332,053,926
Liabilities		
Salaries payable	159,382	170,948
Accounts payable	3,973,724	3,952,995
Due to Proprietary Funds	422,817	-
Due to Uniform Group Insurance Plan	-	-
Securities Lending Collateral	26,778,457	62,523,934
Due to other state agencies	15,084	14,668
Accrued compensated absences	91,241	104,032
Total liabilities	31,440,705	66,766,577
Net position restricted for pensions	<u>\$ 3,843,940,742</u>	<u>\$ 4,265,287,349</u>



Statement of Changes in Fiduciary Net Position (Total PERS)

	Fiscal Year Ending	
	June 30, 2023	June 30, 2024
Additions		
Contributions:		
From employer	\$ 101,933,327	\$ 123,000,618
From employee	93,407,915	102,073,900
Transfer from general fund	-	135,000,000
Transfers from other plans	-	-
Total contributions	195,341,242	360,074,518
Investment income:		
Net change in fair value of investments	235,395,847	293,802,907
Interest and dividends	56,987,131	63,246,960
Less investment expense	(10,704,698)	(9,533,328)
Net investment income	281,678,280	347,516,539
Securities Lending Income	171,284	225,528
Repurchase service credit	5,151,247	6,539,922
Miscellaneous income	10,885	22,897
Total additions	482,352,938	714,379,404
Deductions		
Benefits paid to participants	253,174,353	269,179,193
Refunds	18,023,294	20,462,340
Transfers to other plans	316,367	405,482
	271,514,014	290,047,015
Administrative expenses	2,670,084	2,985,782
Total deductions	274,184,098	293,032,797
Change in net position	208,168,840	421,346,607
Net position restricted for pensions		
Beginning of year	3,635,771,902	3,843,940,742
End of year	\$ 3,843,940,742	\$ 4,265,287,349



Market Value of Assets by Plan (Total PERS)

	Fiscal Year Ending									
	June 30, 2023					June 30, 2024				
	Main System	Judges	Public Safety with Prior Main System Service	Public Safety without Prior Main System Service	Total PERS	Main System	Judges	Public Safety with Prior Main System Service	Public Safety without Prior Main System Service	Total PERS
Additions										
Contributions:										
From employer	\$ 92,511,041	\$ 1,558,939	\$ 6,658,082	\$ 1,205,265	\$ 101,933,327	\$ 107,984,538	\$ 1,718,963	\$ 11,939,147	\$ 1,357,970	\$ 123,000,618
From employee	88,104,240	711,890	3,750,551	841,234	93,407,915	94,573,157	784,910	5,837,157	878,676	102,073,900
Transfer from general fund	-	-	-	-	-	135,000,000	-	-	-	135,000,000
Transfers from other plans	(204,027)	-	204,027	-	-	(38,824,140)	-	38,824,140	-	-
Total contributions	180,411,254	2,270,829	10,612,660	2,046,499	195,341,242	298,733,555	2,503,873	56,600,444	2,236,646	360,074,518
Investment income	266,359,318	4,893,127	9,017,377	1,408,458	281,678,280	325,608,941	5,826,616	14,183,525	1,897,457	347,516,539
Securities Lending Income	171,284	-	-	-	171,284	225,528	-	-	-	225,528
Repurchase service credit	5,033,602	-	98,918	18,727	5,151,247	6,154,423	-	366,550	18,949	6,539,922
Miscellaneous income	10,885	-	-	-	10,885	22,897	-	-	-	22,897
Total additions	451,986,343	7,163,956	19,728,955	3,473,684	482,352,938	630,745,344	8,330,489	71,150,519	4,153,052	714,379,404
Deductions										
Total Benefits, Refunds and Transfers	263,380,371	3,673,175	4,194,767	265,701	271,514,014	280,890,152	3,811,436	4,939,106	406,321	290,047,015
Administrative expenses	2,552,994	11,044	82,419	23,627	2,670,084	2,814,595	29,261	118,662	23,264	2,985,782
Total deductions	265,933,365	3,684,219	4,277,186	289,328	274,184,098	283,704,747	3,840,697	5,057,768	429,585	293,032,797
Change in net position	186,052,978	3,479,737	15,451,769	3,184,356	208,168,840	347,040,597	4,489,792	66,092,751	3,723,467	421,346,607
Net position restricted for pensions										
Beginning of year	3,444,965,426	62,598,397	110,992,147	17,215,932	3,635,771,902	3,631,018,404	66,078,134	126,443,916	20,400,288	3,843,940,742
End of year	\$ 3,631,018,404	\$ 66,078,134	\$ 126,443,916	\$ 20,400,288	\$ 3,843,940,742	\$ 3,978,059,001	\$ 70,567,926	\$ 192,536,667	\$ 24,123,755	\$ 4,265,287,349

Numbers may not add due to rounding.



Development of Actuarial Value of Assets (Total PERS)

Fiscal Year Ending	2023	2024	2025	2026	2027	2028
Beginning of Year:						
(1) Market Value of Assets	\$ 3,635,771,902	\$ 3,843,940,742				
(2) Actuarial Value of Assets ¹	3,750,359,666	3,899,548,509				
End of Year:						
(3) Market Value of Assets	3,843,940,742	4,265,287,349				
(4a) Contributions (Incl. repurchase svc credit)	200,503,374	366,637,337				
(4b) Net Disbursements	274,184,098	293,032,797				
(5) Total Investment Income	281,849,564	347,742,067				
= (3) - (1) - (4a) + (4b)						
(6) Projected Rate of Return	6.50%	6.50%				
(7) Projected Investment Income						
= (1) x (6) + [(1 + (6)) ^{0.5-1}] x (4a - 4b)	233,968,247	252,210,638				
(8) Asset Adjustment	-	-				
(9) Investment Income in Excess of Projected Income	47,881,317	95,531,429				
(10) Excess Investment Income Recognized This Year (5-year recognition)						
(10a) From This Year	\$ 9,576,263	\$ 19,106,286				
(10b) From One Year Ago	(106,112,294)	9,576,263	\$ 19,106,286			
(10c) From Two Years Ago	125,166,790	(106,112,294)	9,576,263	\$ 19,106,286		
(10d) From Three Years Ago	(25,909,518)	125,166,790	(106,112,294)	9,576,263	\$ 19,106,286	
(10e) From Four Years Ago	(13,819,921)	(25,909,519)	125,166,789	(106,112,293)	9,576,265	\$ 19,106,285
(10f) Total Recognized Investment Gain/(Loss)	(11,098,680)	21,827,526	47,737,044	(77,429,744)	28,682,551	19,106,285
(11) Change in Actuarial Value of Assets = (4a) - (4b) + (7) + (8) + (10f)	149,188,843	347,642,704				
End of Year:						
(3) Market Value of Assets	\$ 3,843,940,742	\$ 4,265,287,349				
(12) Final Actuarial Value of Assets as of 6/30 = (2) + (11)	\$ 3,899,548,509	\$ 4,247,191,213				
(13) Difference between Market & Actuarial Values	(55,607,767)	18,096,136				
(14) Estimated Market Value Rate of Return on Total Plan Assets	7.83%	8.96%				
(15) Actuarial Value Rate of Return	6.00%	6.96%				
(16) Ratio of Actuarial Value to Market Value	101.4%	99.6%				

¹Asset gains and losses in FY 2016 and prior were fully recognized as of July 1, 2017, and subsequent asset gains/losses are smoothed in over a five-year period.



Actuarial Value of Assets by Plan (Total PERS)

Valuation as of July 1, 2024					
	Main System	Judges	Public Safety with Prior	Public Safety without Prior	Total
Market Value of Assets	\$ 3,978,059,001	\$ 70,567,926	\$ 192,536,667	\$ 24,123,755	\$ 4,265,287,349
% of Total	93.27%	1.65%	4.51%	0.57%	100.00%
Actuarial Value of Assets	\$ 3,961,181,475	\$ 70,268,531	\$ 191,719,801	\$ 24,021,406	\$ 4,247,191,213
% of Total	93.27%	1.65%	4.51%	0.57%	100.00%
Ratio of Actuarial Value to Market Value	99.58%	99.58%	99.58%	99.58%	99.58%
Difference between Market Value and Actuarial Value	\$ 16,877,526	\$ 299,395	\$ 816,866	\$ 102,349	\$ 18,096,136

Valuation as of July 1, 2023					
	Main System	Judges	Public Safety with Prior	Public Safety without Prior	Total
Market Value of Assets	\$ 3,631,018,404	\$ 66,078,134	\$ 126,443,916	\$ 20,400,288	\$ 3,843,940,742
% of Total	94.46%	1.72%	3.29%	0.53%	100.00%
Actuarial Value of Assets	\$ 3,683,545,963	\$ 67,034,043	\$ 128,273,097	\$ 20,695,406	\$ 3,899,548,509
% of Total	94.46%	1.72%	3.29%	0.53%	100.00%
Ratio of Actuarial Value to Market Value	101.45%	101.45%	101.45%	101.45%	101.45%
Difference between Market Value and Actuarial Value	\$ (52,527,559)	\$ (955,909)	\$ (1,829,181)	\$ (295,118)	\$ (55,607,767)

Market value of assets by plan provided by NDPERS Staff.

Actuarial value of assets by plan allocated based on the proportion of the market value of assets as of the actuarial valuation date.



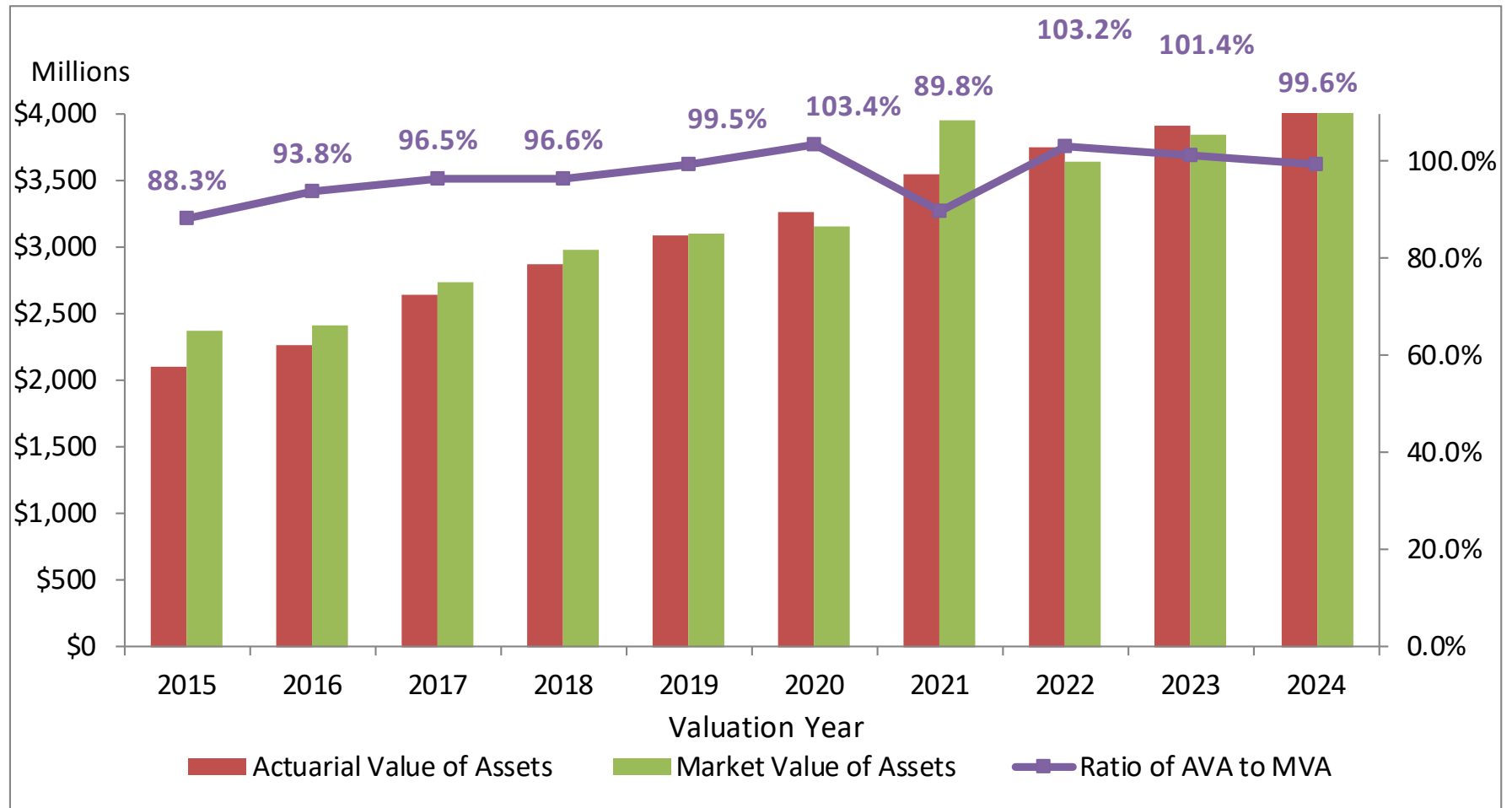
Changes in Actuarial Value of Assets (Total PERS)

Date	Employer Contributions	Member Contributions ¹	Transfers from/(to) Other Funds	Administrative Expenses	Benefit Payments and Refunds	Actuarial Value Investment Income	Actuarial Value of Assets at End of Year	Market Value of Assets at End of Year
7/1/2015	\$70,842,535	\$75,043,940	(\$584,727)	\$(2,365,357)	\$(134,397,090)	\$189,874,321	\$2,094,251,356	2,371,710,809
7/1/2016	77,080,576	83,397,439	23,176,288	(2,537,799)	(149,265,492)	139,175,273	2,265,277,641	2,414,895,657
7/1/2017	78,933,571	87,812,526	(239,609)	(2,607,243)	(162,752,359)	366,774,105	2,633,198,632	2,727,835,589
7/1/2018	80,727,209	97,446,721	(190,727)	(2,472,761)	(182,330,936)	242,410,591	2,868,788,729	2,970,180,276
7/1/2019	81,588,318	85,427,636	(330,963)	(2,531,304)	(197,426,974)	246,366,466	3,081,881,908	3,096,731,081
7/1/2020	85,504,033	92,293,674	(118,721)	(2,729,759)	(218,435,167)	222,186,848	3,260,582,816	3,154,351,139
7/1/2021	91,265,640	93,042,302	(93,418)	(2,569,186)	(231,206,986)	335,799,310	3,546,820,478	3,949,722,700
7/1/2022	96,630,783	99,897,299	(163,705)	(2,340,267)	(251,902,544)	261,417,622	3,750,359,666	3,635,771,902
7/1/2023	101,933,327	98,570,047	(316,367)	(2,670,084)	(271,197,647)	222,869,567	3,899,548,509	3,843,940,742
7/1/2024	123,000,618	108,636,719	134,594,518	(2,985,782)	(289,641,533)	274,038,164	4,247,191,213	4,265,287,349
10-Year Total	887,506,610	921,568,303	155,732,569	(25,809,542)	(2,088,556,728)	2,500,912,267		

¹ Includes repurchases of service credit and miscellaneous income.



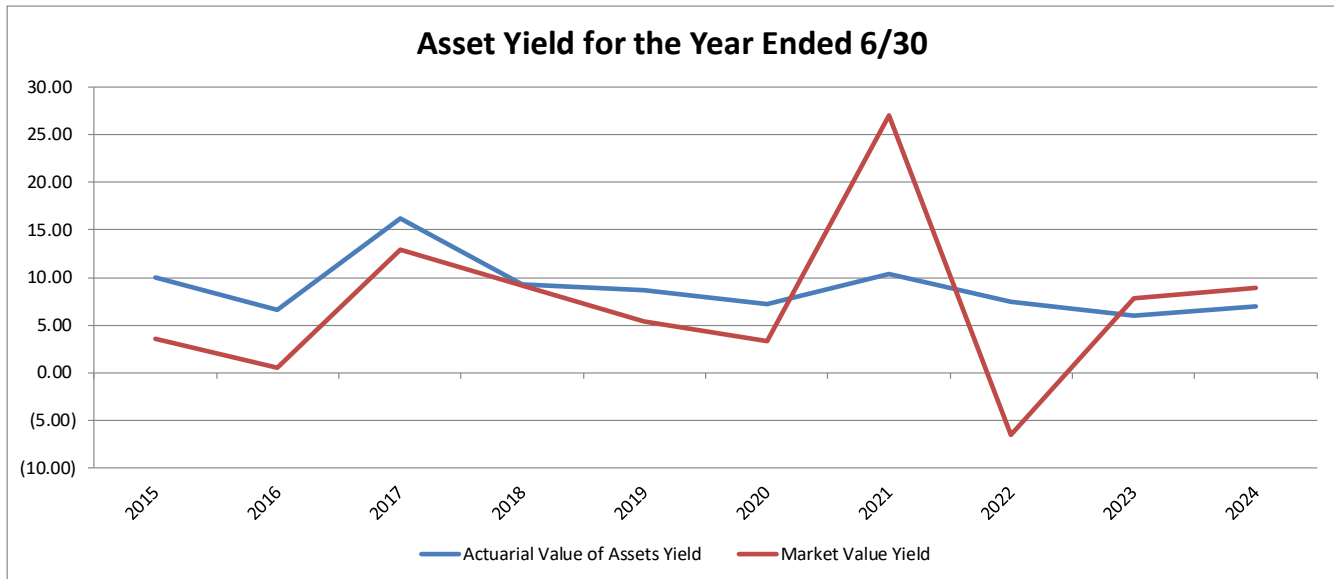
Historical Comparison of Actuarial Value of Assets to Market Value of Assets (Total PERS)



Values prior to July 1, 2016, were calculated by the prior actuary.

Historical Comparison of Total Investment Income (Total PERS)

Actuarial Valuation Date	Non-Investment Income Amount	Total Investment Income (Actuarial Assets Basis)			Total Investment Income (Market Assets Basis)		
		Amount	Yield	Actuarial Value of Assets	Amount	Yield	Market Value of Assets
7/1/2015	\$ 8,539,301	\$ 189,874,321	9.99 %	\$ 2,094,251,356	\$ 81,588,645	3.57 %	\$ 2,371,710,809
7/1/2016	31,851,012	139,175,273	6.60	2,265,277,641	11,333,836	0.47	2,414,895,657
7/1/2017	1,146,886	366,774,105	16.19	2,633,198,632	311,793,046	12.91	2,727,835,589
7/1/2018	(6,820,494)	242,410,591	9.22	2,868,788,729	249,165,181	9.15	2,970,180,276
7/1/2019	(33,273,287)	246,366,466	8.64	3,081,881,908	159,824,092	5.41	3,096,731,081
7/1/2020	(43,485,940)	222,186,848	7.26	3,260,582,816	101,105,998	3.29	3,154,351,139
7/1/2021	(49,561,648)	335,799,310	10.38	3,546,820,478	844,933,209	27.00	3,949,722,700
7/1/2022	(57,878,434)	261,417,622	7.43	3,750,359,666	(256,072,364)	(6.53)	3,635,771,902
7/1/2023	(73,680,724)	222,869,567	6.00	3,899,548,509	281,849,564	7.83	3,843,940,742
7/1/2024	73,604,540	274,038,164	6.96	4,247,191,213	347,742,067	8.96	4,265,287,349
10-Year Total	(149,558,788)	2,500,912,267	8.87		2,133,263,274	7.21	



Values prior to July 1, 2016, were calculated by the prior actuary.



SECTION C

ACTUARIAL VALUATION DATA

Summary of Participant Data (July 1, 2023, and July 1, 2024)

	Valuation as of July 1, 2024				
			Public Safety w/ Prior Main System Service	Public Safety w/o Prior Main System Service	
	Main System	Judges			Total
Active Members					
Number	23,839	60	1,649	251	25,799
Average Age	45.8	56.2	38.0	37.6	45.2
Average Vesting Service	8.9	16.0	9.1	6.5	8.9
Total Payroll	\$ 1,311,798,089	\$ 9,990,447	\$ 117,265,263	\$ 15,868,015	\$ 1,454,921,813
Inactive Members ¹					
Number	7,986	1	346	124	8,457
Total Benefits	\$ 52,319,642	\$ 31,281	\$ 2,529,140	\$ 500,133	\$ 55,380,196
Inactive Members Elected Refunds ¹					
Number	9,878	-	244	88	10,210
Total Account Balance	\$ 44,764,463	\$ -	\$ 1,282,126	\$ 310,112	\$ 46,356,701
Retired, Disabled and Beneficiary Members					
Number	15,370	67	168	27	15,632
Total Benefits	\$ 266,123,823	\$ 3,946,741	\$ 3,984,351	\$ 334,714	\$ 274,389,628
Total Membership	57,073	128	2,407	490	60,098

	Valuation as of July 1, 2023				
			Public Safety w/ Prior Main System Service	Public Safety w/o Prior Main System Service	
	Main System	Judges			Total
Active Members					
Number	23,678	57	1,044	240	25,019
Average Age	45.8	56.0	36.7	37.8	45.4
Average Vesting Service	9.2	15.8	8.0	6.4	9.1
Total Payroll	\$ 1,222,870,520	\$ 8,954,748	\$ 71,555,079	\$ 14,895,770	\$ 1,318,276,116
Inactive Members ¹					
Number	7,624	3	279	111	8,017
Total Benefits	\$ 50,531,448	\$ 107,712	\$ 1,833,570	\$ 416,184	\$ 52,888,914
Inactive Members Elected Refunds ¹					
Number	9,290	-	220	75	9,585
Total Account Balance	\$ 41,255,637	\$ -	\$ 1,400,621	\$ 234,082	\$ 42,890,340
Retired, Disabled and Beneficiary Members					
Number	14,755	66	158	18	14,997
Total Benefits	\$ 250,681,557	\$ 3,921,734	\$ 3,535,545	\$ 228,899	\$ 258,367,734
Total Membership	55,347	126	1,701	444	57,618

¹Includes transferred members.



Age/Service/Salary by Group as of July 1, 2024

Main System

Vesting Service as of Valuation Date										Contribution	
Current Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 and Over	Totals	Valuation Payroll	Account Balance *
Under 20	119	-	-	-	-	-	-	-	119	\$ 3,682,973	\$ 147,892
20-24	1,072	9	-	-	-	-	-	-	1,081	39,224,440	3,714,013
25-29	1,597	232	3	-	-	-	-	-	1,832	85,501,742	17,063,138
30-34	1,600	673	161	3	-	-	-	-	2,437	127,672,476	46,899,683
35-39	1,540	745	502	133	4	-	-	-	2,924	163,642,318	92,720,967
40-44	1,414	732	505	384	101	6	-	-	3,142	181,766,616	137,329,678
45-49	965	657	473	399	251	86	10	-	2,841	169,433,961	169,087,034
50-54	877	574	445	381	270	230	87	4	2,868	170,683,922	214,998,882
55-59	749	448	427	376	292	226	177	84	2,779	162,713,587	244,357,611
60-64	607	469	417	384	292	182	120	177	2,648	149,141,646	239,714,823
65-69	204	169	157	110	82	70	29	70	891	47,144,270	80,473,206
70-74	61	41	29	25	16	15	5	11	203	8,752,310	14,563,774
75 and Over	21	15	8	11	6	4	4	5	74	2,437,826	3,810,166
Total	10,826	4,764	3,127	2,206	1,314	819	432	351	23,839	\$ 1,311,798,089	\$ 1,264,880,867

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Previous Valuation		Current Valuation		Change
Average Age:	45.8	Average Age:	45.8	0.0
Average Vesting Service:	9.2	Average Vesting Service:	8.9	(0.3)
Average Annual Pay:	\$51,646	Average Annual Pay:	\$55,027	\$3,381
Average Account Balance:	\$52,275	Average Account Balance:	\$53,059	\$784
Vested Participants	16,260	Vested Participants	15,913	(347)
Nonvested Participants	7,418	Nonvested Participants	7,926	508
Total Participants	23,678	Total Participants	23,839	161

Annualized Salary as of Valuation Date											Totals
Current Age	Less Than \$20,000	\$20,000-\$29,999	\$30,000-\$39,999	\$40,000-\$49,999	\$50,000-\$59,999	\$60,000-\$69,999	\$70,000-\$79,999	\$80,000-\$89,999	\$90,000-\$99,999	\$100,000 & Over	
Under 20	26	36	20	30	7	-	-	-	-	-	119
20-24	161	303	142	242	156	61	12	3	-	1	1,081
25-29	113	294	249	374	385	240	112	35	22	8	1,832
30-34	141	287	261	469	481	349	213	105	66	65	2,437
35-39	143	386	280	447	529	415	279	186	108	151	2,924
40-44	153	396	306	466	511	446	314	183	132	235	3,142
45-49	121	306	292	451	441	361	312	199	128	230	2,841
50-54	101	317	301	459	452	416	280	186	118	238	2,868
55-59	104	282	337	447	462	382	299	158	103	205	2,779
60-64	102	298	361	457	453	339	250	143	79	166	2,648
65-69	58	133	131	161	130	89	72	41	24	52	891
70-74	40	46	28	25	28	15	6	4	2	9	203
75 and Over	23	16	13	6	6	9	1	-	-	-	74
Total	1,286	3,100	2,721	4,034	4,041	3,122	2,150	1,243	782	1,360	23,839

*Contribution account balance includes Portability Enhancement Provision (PEP) balance.



Age/Service/Salary by Group as of July 1, 2024

Judges

	Vesting Service as of Valuation Date										Contribution	
Current Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 and Over	Totals	Valuation Payroll	Account Balance	
Under 20	-	-	-	-	-	-	-	-	0	\$ -	\$ -	
20-24	-	-	-	-	-	-	-	-	0	-	-	
25-29	-	-	-	-	-	-	-	-	0	-	-	
30-34	-	-	-	-	-	-	-	-	0	-	-	
35-39	-	2	-	-	-	-	-	-	2	329,629	45,692	
40-44	2	3	2	-	-	-	-	-	7	1,151,724	510,699	
45-49	1	2	3	2	1	-	-	-	9	1,500,151	937,284	
50-54	2	3	1	2	1	1	1	-	11	1,811,534	1,572,990	
55-59	1	-	1	1	-	3	-	-	6	1,011,718	1,117,998	
60-64	-	1	2	2	4	1	1	1	12	2,008,619	2,442,662	
65-69	-	1	-	5	1	-	1	1	9	1,518,943	3,080,225	
70-74	-	1	2	1	-	-	-	-	4	658,128	640,224	
75 and Over	-	-	-	-	-	-	-	-	0	-	-	
Total	6	13	11	13	7	5	3	2	60	\$ 9,990,447	\$ 10,347,772	

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Previous Valuation		Current Valuation		Change
Average Age:	56.0	Average Age:	56.2	0.2
Average Vesting Service:	15.8	Average Vesting Service:	16.0	0.2
Average Annual Pay:	\$157,101	Average Annual Pay:	\$166,507	\$9,406
Average Account Balance:	\$160,018	Average Account Balance:	\$172,463	\$12,445
Vested Participants	55	Vested Participants	57	2
Nonvested Participants	2	Nonvested Participants	3	1
Total Participants	57	Total Participants	60	3

Current Age	Annualized Salary as of Valuation Date										Totals
	Less Than \$20,000	\$20,000-\$29,999	\$30,000-\$39,999	\$40,000-\$49,999	\$50,000-\$59,999	\$60,000-\$69,999	\$70,000-\$79,999	\$80,000-\$89,999	\$90,000-\$99,999	\$100,000 & Over	
Under 20	-	-	-	-	-	-	-	-	-	-	0
20-24	-	-	-	-	-	-	-	-	-	-	0
25-29	-	-	-	-	-	-	-	-	-	-	0
30-34	-	-	-	-	-	-	-	-	-	-	0
35-39	-	-	-	-	-	-	-	-	-	2	2
40-44	-	-	-	-	-	-	-	-	-	7	7
45-49	-	-	-	-	-	-	-	-	-	9	9
50-54	-	-	-	-	-	-	-	-	-	11	11
55-59	-	-	-	-	-	-	-	-	-	6	6
60-64	-	-	-	-	-	-	-	-	-	12	12
65-69	-	-	-	-	-	-	-	-	-	9	9
70-74	-	-	-	-	-	-	-	-	-	4	4
75 and Over	-	-	-	-	-	-	-	-	-	-	0
Total	0	0	0	0	0	0	0	0	0	60	60



Age/Service/Salary by Group as of July 1, 2024

Public Safety with Prior Main System Service

Vesting Service as of Valuation Date										Contribution	
Current Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 and Over	Totals	Valuation Payroll	Account Balance *
Under 20	7	-	-	-	-	-	-	-	7	\$ 371,669	\$ 14,110
20-24	166	2	-	-	-	-	-	-	168	9,412,094	809,464
25-29	186	79	-	-	-	-	-	-	265	16,341,852	3,628,247
30-34	88	169	37	-	-	-	-	-	294	20,206,471	8,181,928
35-39	70	73	112	27	-	1	-	-	283	20,552,259	12,262,594
40-44	38	54	56	56	8	2	1	-	215	16,473,419	13,898,965
45-49	21	30	15	34	38	10	2	-	150	12,247,624	13,972,366
50-54	22	24	13	19	22	33	4	-	137	11,079,911	15,731,396
55-59	10	17	4	14	12	9	11	2	79	6,328,313	10,068,309
60-64	5	8	2	4	8	2	9	3	41	3,506,377	6,016,153
65-69	1	3	2	2	-	-	-	1	9	692,580	941,291
70-74	1	-	-	-	-	-	-	-	1	52,694	8,331
75 and Over	-	-	-	-	-	-	-	-	0	-	-
Total	615	459	241	156	88	57	27	6	1,649	\$ 117,265,263	\$ 85,533,153

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Previous Valuation		Current Valuation		Change
Average Age:	36.7	Average Age:	38.0	1.3
Average Vesting Service:	8.0	Average Vesting Service:	9.1	1.1
Average Annual Pay:	\$68,539	Average Annual Pay:	\$71,113	\$2,574
Average Account Balance:	\$42,957	Average Account Balance:	\$51,870	\$8,913
Vested Participants	779	Vested Participants	1,228	449
Nonvested Participants	265	Nonvested Participants	421	156
Total Participants	1,044	Total Participants	1,649	605

Annualized Salary as of Valuation Date											Totals
Current Age	Less Than \$20,000	\$20,000-\$29,999	\$30,000-\$39,999	\$40,000-\$49,999	\$50,000-\$59,999	\$60,000-\$69,999	\$70,000-\$79,999	\$80,000-\$89,999	\$90,000-\$99,999	\$100,000 & Over	
Under 20	-	-	-	2	5	-	-	-	-	-	7
20-24	-	3	2	29	77	51	6	-	-	-	168
25-29	2	1	2	28	89	87	41	14	1	-	265
30-34	1	1	-	10	57	91	84	37	8	5	294
35-39	2	1	1	9	43	71	76	47	16	17	283
40-44	-	-	1	6	29	44	49	50	16	20	215
45-49	1	1	-	5	14	24	27	34	21	23	150
50-54	-	-	-	7	13	18	36	24	19	20	137
55-59	-	-	-	3	12	9	21	16	5	13	79
60-64	-	-	-	1	3	8	7	6	3	13	41
65-69	-	-	-	1	1	3	-	2	-	2	9
70-74	-	-	-	-	1	-	-	-	-	-	1
75 and Over	-	-	-	-	-	-	-	-	-	-	0
Total	6	7	6	101	344	406	347	230	89	113	1,649

*Contribution account balance includes Portability Enhancement Provision (PEP) balance.



Age/Service/Salary by Group as of July 1, 2024

Public Safety without Prior Main System Service

Vesting Service as of Valuation Date											Contribution	
Current Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 and Over	Totals	Valuation Payroll	Account Balance *	
Under 20	1	-	-	-	-	-	-	-	1	\$ 52,926	\$ 1,476	
20-24	28	-	-	-	-	-	-	-	28	1,372,667	93,127	
25-29	42	8	-	-	-	-	-	-	50	2,718,353	337,812	
30-34	18	19	3	-	-	-	-	-	40	2,478,142	567,543	
35-39	11	15	2	3	-	-	-	-	31	1,865,990	772,222	
40-44	9	13	7	5	1	-	-	-	35	2,533,718	1,415,588	
45-49	5	10	8	3	1	-	-	-	27	1,907,677	887,149	
50-54	6	3	6	2	1	-	1	-	19	1,347,610	1,238,049	
55-59	1	1	3	4	1	1	-	-	11	841,126	1,857,579	
60-64	3	2	2	-	-	-	-	-	7	564,263	355,376	
65-69	-	-	-	-	1	-	-	-	1	104,084	123,320	
70-74	-	-	-	-	-	1	-	-	1	81,458	428,871	
75 and Over	-	-	-	-	-	-	-	-	0	-	-	
Total	124	71	31	17	5	2	1	0	251	\$ 15,868,015	\$ 8,078,112	

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Previous Valuation		Current Valuation		Change
Average Age:	37.8	Average Age:	37.6	(0.2)
Average Vesting Service:	6.4	Average Vesting Service:	6.5	0.1
Average Annual Pay:	\$62,066	Average Annual Pay:	\$63,219	\$1,153
Average Account Balance:	\$32,689	Average Account Balance:	\$32,184	(\$505)
Vested Participants	162	Vested Participants	164	2
Nonvested Participants	78	Nonvested Participants	87	9
Total Participants	240	Total Participants	251	11

Annualized Salary as of Valuation Date											
Current Age	Less Than \$20,000	\$20,000-\$29,999	\$30,000-\$39,999	\$40,000-\$49,999	\$50,000-\$59,999	\$60,000-\$69,999	\$70,000-\$79,999	\$80,000-\$89,999	\$90,000-\$99,999	\$100,000 & Over	Totals
Under 20	-	-	-	-	1	-	-	-	-	-	1
20-24	1	-	2	9	12	4	-	-	-	-	28
25-29	1	1	1	3	31	13	-	-	-	-	50
30-34	-	-	1	2	13	17	6	-	1	-	40
35-39	2	2	-	2	10	6	5	1	2	1	31
40-44	-	-	-	1	3	13	9	6	1	2	35
45-49	-	-	1	2	7	3	5	2	5	2	27
50-54	-	-	-	2	2	6	4	2	2	1	19
55-59	-	-	1	-	-	4	2	1	2	1	11
60-64	-	-	-	-	-	2	2	2	-	1	7
65-69	-	-	-	-	-	-	-	-	-	1	1
70-74	-	-	-	-	-	-	-	1	-	-	1
75 and Over	-	-	-	-	-	-	-	-	-	-	0
Total	4	3	6	21	79	68	33	15	13	9	251

*Contribution account balance includes Portability Enhancement Provision (PEP) balance.



Age/Service/Salary by Group as of July 1, 2024

Combined Main System, Judges and Public Safety

Current Age	Vesting Service as of Valuation Date									Totals	Valuation Payroll	Contribution	
	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 and Over				Account Balance *	
Under 20	127	-	-	-	-	-	-	-	-	127	\$ 4,107,569	\$ 163,478	
20-24	1,266	11	-	-	-	-	-	-	-	1,277	50,009,201	4,616,605	
25-29	1,825	319	3	-	-	-	-	-	-	2,147	104,561,947	21,029,196	
30-34	1,706	861	201	3	-	-	-	-	-	2,771	150,357,089	55,649,154	
35-39	1,621	835	616	163	4	1	-	-	-	3,240	186,390,196	105,801,475	
40-44	1,463	802	570	445	110	8	1	-	-	3,399	201,925,476	153,154,929	
45-49	992	699	499	438	291	96	12	-	-	3,027	185,089,413	184,883,832	
50-54	907	604	465	404	294	264	93	4	-	3,035	184,922,977	233,541,316	
55-59	761	466	435	395	305	239	188	86	-	2,875	170,894,744	257,401,497	
60-64	615	480	423	390	304	185	130	181	-	2,708	155,220,906	248,529,014	
65-69	205	173	159	117	84	70	30	72	-	910	49,459,877	84,618,042	
70-74	62	42	31	26	16	16	5	11	-	209	9,544,591	15,641,199	
75 and Over	21	15	8	11	6	4	4	5	-	74	2,437,826	3,810,166	
Total	11,571	5,307	3,410	2,392	1,414	883	463	359	-	25,799	\$ 1,454,921,813	\$ 1,368,839,904	

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Previous Valuation		Current Valuation		Change
Average Age:	45.4	Average Age:	45.2	(0.2)
Average Vesting Service:	9.1	Average Vesting Service:	8.9	(0.2)
Average Annual Pay:	\$52,691	Average Annual Pay:	\$56,395	\$3,704
Average Account Balance:	\$51,944	Average Account Balance:	\$53,058	\$1,114
Vested Participants	17,256	Vested Participants	17,362	106
Nonvested Participants	7,763	Nonvested Participants	8,437	674
Total Participants	25,019	Total Participants	25,799	780

Current Age	Annualized Salary as of Valuation Date										Totals
	Less Than \$20,000	\$20,000-\$29,999	\$30,000-\$39,999	\$40,000-\$49,999	\$50,000-\$59,999	\$60,000-\$69,999	\$70,000-\$79,999	\$80,000-\$89,999	\$90,000-\$99,999	\$100,000 & Over	
Under 20	26	36	20	32	13	-	-	-	-	-	127
20-24	162	306	146	280	245	116	18	3	-	1	1,277
25-29	116	296	252	405	505	340	153	49	23	8	2,147
30-34	142	288	262	481	551	457	303	142	75	70	2,771
35-39	147	389	281	458	582	492	360	234	126	171	3,240
40-44	153	396	307	473	543	503	372	239	149	264	3,399
45-49	122	307	293	458	462	388	344	235	154	264	3,027
50-54	101	317	301	468	467	440	320	212	139	270	3,035
55-59	104	282	338	450	474	395	322	175	110	225	2,875
60-64	102	298	361	458	456	349	259	151	82	192	2,708
65-69	58	133	131	162	131	92	72	43	24	64	910
70-74	40	46	28	25	29	15	6	5	2	13	209
75 and Over	23	16	13	6	6	9	1	-	-	-	74
Total	1,296	3,110	2,733	4,156	4,464	3,596	2,530	1,488	884	1,542	25,799

*Contribution account balance includes Portability Enhancement Provision (PEP) balance.



Historical Schedule of Active Member Data through July 1, 2024

Valuation Date 7/1	Main System			
	Number	Annual Payroll (\$ in Millions)	Average Annual Pay ¹	% Increase in Avg Pay
2015	22,381	\$993.6	\$43,395	0.0%
2016	22,762	1,007.8	44,274	2.0%
2017	22,574	1,020.8	45,222	2.1%
2018	22,711	1,027.3	45,234	0.0%
2019	22,826	1,040.2	45,570	0.7%
2020	23,487	1,103.1	46,967	3.1%
2021	23,370	1,132.4	48,455	3.2%
2022	23,487	1,160.8	49,425	2.0%
2023	23,678	1,222.9	51,646	4.5%
2024	23,839	1,311.8	55,027	6.5%

Valuation Date 7/1	Judges			
	Number	Annual Payroll (\$ in Millions)	Average Annual Pay ¹	% Increase in Avg Pay
2015	51	\$7.3	\$142,636	2.4%
2016	56	7.9	141,733	(0.6)%
2017	54	7.9	145,668	2.8%
2018	55	8.0	145,615	(0.0)%
2019	56	8.2	145,791	0.1%
2020	57	8.4	148,047	1.5%
2021	57	8.7	151,836	2.6%
2022	57	8.7	153,147	0.9%
2023	57	9.0	157,101	2.6%
2024	60	10.0	166,507	6.0%

¹ Prior to the actuarial valuation as of July 1, 2016, annual payroll is based on projected annual compensation for the upcoming year. Beginning with the actuarial valuation as of July 1, 2016, annual payroll and average annual pay are based on annualized payroll as of the actuarial valuation date.

Values prior to July 1, 2016, were calculated by the prior actuary.



Historical Schedule of Active Member Data through July 1, 2024

Valuation Date 7/1	Public Safety with Prior Main System Service			
	Number	Annual Payroll (\$ in Millions)	Average Annual Pay ¹	% Increase in Avg Pay
2015	318	\$18.7	\$58,781	10.7%
2016	498	28.2	56,678	(3.6)%
2017	498	28.8	57,762	1.9%
2018	598	34.5	57,728	(0.1)%
2019	732	43.0	58,731	1.7%
2020	745	45.4	60,918	3.7%
2021	967	61.5	63,633	4.5%
2022	990	64.7	65,400	2.8%
2023	1,044	71.6	68,539	4.8%
2024	1,649	117.3	71,113	3.8%

Valuation Date 7/1	Public Safety without Prior Main System Service			
	Number	Annual Payroll (\$ in Millions)	Average Annual Pay ¹	% Increase in Avg Pay
2015	95	\$4.6	\$48,204	9.9%
2016	100	4.6	46,217	(4.1)%
2017	117	5.9	50,400	9.0%
2018	119	6.1	51,352	1.9%
2019	140	7.1	50,646	(1.4)%
2020	200	10.8	54,124	6.9%
2021	200	11.1	55,485	2.5%
2022	245	14.0	57,125	3.0%
2023	240	14.9	62,066	8.6%
2024	251	15.9	63,219	1.9%

¹Prior to the actuarial valuation as of July 1, 2016, annual payroll is based on projected annual compensation for the upcoming year. Beginning with the actuarial valuation as of July 1, 2016, annual payroll and average annual pay are based on annualized payroll as of the actuarial valuation date.

Values prior to July 1, 2016, were calculated by the prior actuary.

Summary of Active Member Data as of July 1, 2024

Active Members Eligible For:	Main System	Judges	Public Safety with Prior Main Service	Public Safety without Prior Main Service	Total
Retirement					
Normal	1,168	13	120	18	1,319
Rule of 85*	1,011	5	4	0	1,020
Early Retirement	<u>3,542</u>	<u>14</u>	<u>120</u>	<u>16</u>	<u>3,692</u>
Total Retirement	5,721	32	244	34	6,031
Deferred Retirement	<u>10,192</u>	<u>25</u>	<u>984</u>	<u>130</u>	<u>11,331</u>
Total Vested	15,913	57	1,228	164	17,362
Non-Vested	7,926	3	421	87	8,437
Grand Total	23,839	60	1,649	251	25,799

**Includes Rule of 85, Rule of 88 and Rule of 90.*

Five-Year Normal Retirement Eligibility Projection

Main System				
		Age 65	Rule of 85	Total
Currently Eligible as of:	June 30, 2024	1,168	1,011	2,179
Newly Eligible as of:	June 30, 2025	323	249	572
	June 30, 2026	330	260	590
	June 30, 2027	345	284	629
	June 30, 2028	379	251	630
	June 30, 2029	386	264	650
Grand Total		2,931	2,319	5,250

Judges				
		Age 65	Rule of 85	Total
Currently Eligible as of:	June 30, 2024	13	5	18
Newly Eligible as of:	June 30, 2025	1	5	6
	June 30, 2026	1	1	2
	June 30, 2027	0	2	2
	June 30, 2028	0	1	1
	June 30, 2029	1	1	2
Grand Total		16	15	31

No pre-retirement decrements are assumed.



Five-Year Normal Retirement Eligibility Projection

Public Safety with Prior Main System Service				
		Age 55	Rule of 85	Total
Currently Eligible as of:	June 30, 2024	120	4	124
Newly Eligible as of:	June 30, 2025	16	0	16
	June 30, 2026	29	3	32
	June 30, 2027	38	4	42
	June 30, 2028	29	5	34
	June 30, 2029	23	3	26
Grand Total		255	19	274

Public Safety without Prior Main System Service				
		Age 55	Rule of 85	Total
Currently Eligible as of:	June 30, 2024	18	0	18
Newly Eligible as of:	June 30, 2025	4	1	5
	June 30, 2026	2	0	2
	June 30, 2027	5	0	5
	June 30, 2028	3	0	3
	June 30, 2029	6	0	6
Grand Total		38	1	39

No pre-retirement decrements are assumed.



Schedule of Members in Pay Status as of July 1, 2024

Main System							
Monthly Amount	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under \$200	818	492	1	62	233	1,606	1,373
\$200 - \$400	892	772	12	68	281	2,025	1,744
\$400 - \$600	761	635	25	69	213	1,703	1,490
\$600 - \$800	584	375	32	111	148	1,250	1,102
\$800 - \$1,000	492	226	20	219	102	1,059	957
\$1,000 - \$1,200	412	181	9	321	84	1,007	923
\$1,200 - \$1,400	295	98	2	369	61	825	764
\$1,400 - \$1,600	260	51	4	341	43	699	656
\$1,600 - \$1,800	218	32	4	368	35	657	622
\$1,800 - \$2,000	180	22	0	367	33	602	569
\$2,000 - \$2,200	129	11	0	322	22	484	462
\$2,200 - \$2,400	116	10	0	306	32	464	432
\$2,400 - \$2,600	97	7	1	290	12	407	395
\$2,600 - \$2,800	77	6	0	241	15	339	324
\$2,800 - \$3,000	64	4	0	212	10	290	280
\$3,000 and Over	483	11	0	1,392	67	1,953	1,886
Total	5,878	2,933	110	5,058	1,391	15,370	13,979
Payment Option	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Life	3,574	2,061	87	2,346	257	8,325	8,068
Life 1% Graduated Benefits	5	0	0	6	0	11	11
Life 2% Graduated Benefits	10	0	0	12	0	22	22
Level Social Security Payment	1	15	0	83	0	99	99
Joint & 100% Survivor	1,557	557	16	1,612	744	4,486	3,742
Joint & 100% Survivor 1% Graduated Benefits	1	0	0	5	0	6	6
Joint & 100% Survivor 2% Graduated Benefits	7	0	0	7	1	15	14
Joint & 50% Survivor	584	210	6	891	304	1,995	1,691
Joint & 50% Survivor 1% Graduated Benefits	4	0	0	3	1	8	7
Joint & 50% Survivor 2% Graduated Benefits	0	0	0	1	0	1	1
20 Year C & L	67	29	1	39	46	182	136
10 Year C & L	66	55	0	44	32	197	165
10 Year C & L 1% Graduated Benefits	0	0	0	1	0	1	1
5 Year C & L	2	6	0	8	6	22	16
Total	5,878	2,933	110	5,058	1,391	15,370	13,979
Age	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under 50	0	0	17	1	40	58	18
50 - 54	0	0	15	18	36	69	33
55 - 59	0	21	29	223	42	315	273
60 - 64	0	288	47	868	91	1,294	1,203
65 - 69	1,607	668	2	1,339	171	3,787	3,616
70 - 74	1,833	703	0	1,196	223	3,955	3,732
75 and Over	2,438	1,253	0	1,413	788	5,892	5,104
Total	5,878	2,933	110	5,058	1,391	15,370	13,979

	Previous Valuation	Current Valuation	Change
Average Age	73.3	73.5	0.2
Average Monthly Benefit	\$1,416	\$1,443	\$27
Total Members in Pay Status	14,755	15,370	615

* Includes Rule of 85, Rule of 88 and Rule of 90.

** Includes alternate payees.

*** Total excluding beneficiaries.



Schedule of Members in Pay Status as of July 1, 2024

Judges							
Monthly Amount	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under \$400	0	0	0	0	0	0	0
\$400 - \$800	0	0	0	0	1	1	0
\$800 - \$1,200	2	0	0	0	0	2	2
\$1,200 - \$1,600	0	0	0	2	1	3	2
\$1,600 - \$2,000	2	1	0	0	4	7	3
\$2,000 - \$2,400	0	0	0	0	0	0	0
\$2,400 - \$2,800	1	0	0	0	2	3	1
\$2,800 - \$3,200	2	0	0	0	3	5	2
\$3,200 - \$3,600	1	0	0	0	1	2	1
\$3,600 - \$4,000	2	1	0	0	0	3	3
\$4,000 - \$4,400	1	0	0	0	0	1	1
\$4,400 - \$4,800	5	0	0	2	1	8	7
\$4,800 - \$5,200	0	0	0	0	2	2	0
\$5,200 - \$5,600	2	0	0	2	0	4	4
\$5,600 - \$6,000	1	0	0	1	0	2	2
\$6,000 and Over	13	0	1	8	2	24	22
Total	32	2	1	15	17	67	50
Payment Option	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Life	3	0	0	1	4	8	4
Level Social Security Payment	0	0	0	0	0	0	0
Joint & 100% Survivor	20	1	0	8	10	39	29
Joint & 50% Survivor	8	1	1	6	3	19	16
10 Year C & L	0	0	0	0	0	0	0
5 Year C & L	0	0	0	0	0	0	0
Total	32	2	1	15	17	67	50
Age	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under 50	0	0	0	0	0	0	0
50 - 54	0	0	0	0	0	0	0
55 - 59	0	0	0	0	0	0	0
60 - 64	0	0	1	0	1	2	1
65 - 69	3	0	0	4	0	7	7
70 - 74	12	1	0	5	3	21	18
75 and Over	17	1	0	6	13	37	24
Total	32	2	1	15	17	67	50

	Previous Valuation	Current Valuation	Change
Average Age	77.1	77.6	0.5
Average Monthly Benefit	\$4,952	\$4,909	(\$43)
Total Members in Pay Status	66	67	1

* Includes Rule of 85, Rule of 88 and Rule of 90.

** Includes alternate payees.

*** Total excluding beneficiaries.



Schedule of Members in Pay Status as of July 1, 2024

Public Safety with prior Main System Service

Monthly Amount	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under \$200	6	0	0	0	4	10	6
\$200 - \$400	6	1	0	0	4	11	7
\$400 - \$600	15	2	0	0	1	18	17
\$600 - \$800	7	0	0	0	2	9	7
\$800 - \$1,000	7	0	0	0	2	9	7
\$1,000 - \$1,200	11	0	0	0	2	13	11
\$1,200 - \$1,400	7	0	0	0	0	7	7
\$1,400 - \$1,600	9	0	0	0	1	10	9
\$1,600 - \$1,800	7	0	0	0	0	7	7
\$1,800 - \$2,000	5	1	0	0	0	6	6
\$2,000 - \$2,200	8	0	0	1	3	12	9
\$2,200 - \$2,400	2	0	0	0	1	3	2
\$2,400 - \$2,600	2	2	0	1	0	5	5
\$2,600 - \$2,800	3	0	0	0	0	3	3
\$2,800 - \$3,000	2	0	0	1	0	3	3
\$3,000 and Over	35	1	0	6	0	42	42
Total	132	7	0	9	20	168	148
Payment Option	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Life	61	3	0	2	4	70	66
Level Social Security Payment	3	1	0	0	0	4	4
Joint & 100% Survivor	46	3	0	6	7	62	55
Joint & 100% Survivor 1% Graduated Benefits	0	0	0	0	0	0	0
Joint & 50% Survivor	20	0	0	1	3	24	21
20 Year C & L	1	0	0	0	6	7	1
10 Year C & L	0	0	0	0	0	0	0
5 Year C & L	0	0	0	0	0	0	0
20 Year Certain	0	0	0	0	0	0	0
Total	132	7	0	9	20	168	148
Age	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under 50	0	0	0	0	6	6	0
50 - 54	0	1	0	0	2	3	1
55 - 59	16	4	0	3	0	23	23
60 - 64	25	0	0	2	1	28	27
65 - 69	41	2	0	4	3	50	47
70 - 74	31	0	0	0	5	36	31
75 and Over	19	0	0	0	3	22	19
Total	132	7	0	9	20	168	148

	Previous Valuation	Current Valuation	Change
Average Age	66.4	66.6	0.2
Average Monthly Benefit	\$1,865	\$1,976	\$111
Total Members in Pay Status	158	168	10

* Includes Rule of 85, Rule of 88 and Rule of 90.

** Includes alternate payees.

*** Total excluding beneficiaries.



Schedule of Members in Pay Status as of July 1, 2024

Public Safety without Prior Main System Service

Monthly Amount	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under \$200	2	0	0	0	0	2	2
\$200 - \$400	3	0	0	0	1	4	3
\$400 - \$600	6	1	0	0	2	9	7
\$600 - \$800	1	0	0	0	0	1	1
\$800 - \$1,000	0	0	1	0	1	2	1
\$1,000 - \$1,200	0	0	0	0	1	1	0
\$1,200 - \$1,400	2	0	0	0	0	2	2
\$1,400 - \$1,600	0	0	0	0	1	1	0
\$1,600 - \$1,800	0	0	0	0	0	0	0
\$1,800 - \$2,000	1	0	0	0	0	1	1
\$2,000 - \$2,200	0	0	0	0	0	0	0
\$2,200 - \$2,400	1	0	0	0	0	1	1
\$2,400 - \$2,600	0	0	0	0	0	0	0
\$2,600 - \$2,800	0	0	0	0	0	0	0
\$2,800 - \$3,000	0	0	0	0	0	0	0
\$3,000 and Over	3	0	0	0	0	3	3
Total	19	1	1	0	6	27	21
Payment Option	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Life	6	0	1	0	3	10	7
Level Social Security Payment	0	0	0	0	0	0	0
Joint & 100% Survivor	11	1	0	0	3	15	12
Joint & 50% Survivor	2	0	0	0	0	2	2
10 Year C & L	0	0	0	0	0	0	0
5 Year C & L	0	0	0	0	0	0	0
Total	19	1	1	0	6	27	21
Age	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under 50	0	0	1	0	2	3	1
50 - 54	0	0	0	0	0	0	0
55 - 59	2	1	0	0	3	6	3
60 - 64	9	0	0	0	0	9	9
65 - 69	5	0	0	0	1	6	5
70 - 74	3	0	0	0	0	3	3
75 and Over	0	0	0	0	0	0	0
Total	19	1	1	0	6	27	21

	Previous Valuation	Current Valuation	Change
Average Age	62.4	61.0	-1.4
Average Monthly Benefit	\$1,060	\$1,033	(\$27)
Total Members in Pay Status	18	27	9

* Includes Rule of 85, Rule of 88 and Rule of 90.

** Includes alternate payees.

*** Total excluding beneficiaries.



Schedule of New Pensions Awarded during the Year as of July 1, 2024

Main System, Judges, Public Safety							
Monthly Amount	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under \$200	67	10	0	11	12	100	88
\$200 - \$400	78	24	0	4	21	127	106
\$400 - \$600	70	21	2	5	13	111	98
\$600 - \$800	56	16	3	3	11	89	78
\$800 - \$1,000	40	14	2	4	14	74	60
\$1,000 - \$1,200	35	9	5	5	9	63	54
\$1,200 - \$1,400	24	7	0	14	3	48	45
\$1,400 - \$1,600	24	2	0	12	6	44	38
\$1,600 - \$1,800	28	2	0	8	3	41	38
\$1,800 - \$2,000	14	3	0	16	4	37	33
\$2,000 - \$2,200	15	3	0	21	7	46	39
\$2,200 - \$2,400	9	0	0	15	7	31	24
\$2,400 - \$2,600	9	2	0	14	1	26	25
\$2,600 - \$2,800	7	1	0	11	5	24	19
\$2,800 - \$3,000	8	0	0	13	0	21	21
\$3,000 and Over	61	2	0	118	10	191	181
Total	545	116	12	274	126	1,073	947
Payment Option	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Life	285	69	7	112	18	491	473
Life 1% Graduated Benefits	0	0	0	0	0	0	0
Life 2% Graduated Benefits	0	0	0	2	0	2	2
Level Social Security Payment	0	0	0	0	0	0	0
Joint & 100% Survivor	196	30	4	97	70	397	327
Joint & 100% Survivor 1% Graduated Benefits	0	0	0	2	0	2	2
Joint & 100% Survivor 2% Graduated Benefits	0	0	0	0	0	0	0
Joint & 50% Survivor	52	11	1	53	26	143	117
Joint & 50% Survivor 1% Graduated Benefits	0	0	0	0	0	0	0
Joint & 50% Survivor 2% Graduated Benefits	0	0	0	0	0	0	0
20 Year C & L	5	4	0	7	6	22	16
10 Year C & L	7	2	0	1	6	16	10
10-Year C & L 1% Graduated Benefits	0	0	0	0	0	0	0
Total	545	116	12	274	126	1,073	947
Age	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under 50	0	0	4	1	8	13	5
50 - 54	0	0	3	9	7	19	12
55 - 59	5	5	3	52	6	71	65
60 - 64	11	96	2	158	9	276	267
65 - 69	430	15	0	53	23	521	498
70 - 74	72	0	0	1	20	93	73
75 and Over	27	0	0	0	53	80	27
Total	545	116	12	274	126	1,073	947

	Previous Valuation	Current Valuation	Change
New Pensions Awarded	1,114	1,073	-41
Average Age	65.9	66.0	0.1
Average Monthly Benefit	\$1,646	\$1,676	\$30

* Includes Rule of 85, Rule of 88 and Rule of 90.

** Includes alternate payees.

*** Total excluding beneficiaries.



Schedule of Average Benefit Payments as of July 1, 2024

Main System		Years of Vesting Service						Total
		<10	10-14	15-19	20-24	25-29	>=30	
2020	Number of Retirees	2,322	1,689	1,481	1,618	1,778	2,752	11,640
	Average Monthly Benefit	\$282	\$550	\$814	\$1,316	\$1,812	\$2,823	\$1,367
	Average Years of Service	6.26	12.30	17.31	22.57	27.34	35.60	20.96
2021	Number of Retirees	2,467	1,746	1,545	1,708	1,824	2,882	12,172
	Average Monthly Benefit	\$288	\$570	\$844	\$1,353	\$1,845	\$2,885	\$1,397
	Average Years of Service	6.25	12.32	17.34	22.56	27.35	35.64	20.94
2022	Number of Retirees	2,568	1,814	1,615	1,772	1,892	3,054	12,715
	Average Monthly Benefit	\$293	\$600	\$884	\$1,393	\$1,898	\$2,969	\$1,447
	Average Years of Service	6.26	12.32	17.33	22.55	27.35	35.69	21.01
2023	Number of Retirees	2,761	1,911	1,717	1,853	1,969	3,207	13,418
	Average Monthly Benefit	\$299	\$623	\$909	\$1,429	\$1,943	\$3,017	\$1,470
	Average Years of Service	6.25	12.33	17.31	22.56	27.34	35.73	20.92
2024	Number of Retirees	2,928	1,997	1,772	1,909	2,038	3,335	13,979
	Average Monthly Benefit	\$305	\$641	\$937	\$1,466	\$1,978	\$3,072	\$1,496
	Average Years of Service	6.21	12.33	17.28	22.58	27.34	35.79	20.86
Judges		<10	10-14	15-19	20-24	25-29	>=30	Total
2020	Number of Retirees	4	3	6	11	7	13	44
	Average Monthly Benefit	\$2,274	\$3,588	\$4,123	\$5,452	\$4,891	\$6,589	\$5,102
	Average Years of Service	6.29	11.92	17.81	23.17	26.80	35.58	24.38
2021	Number of Retirees	4	3	6	11	8	15	47
	Average Monthly Benefit	\$2,274	\$3,643	\$4,123	\$5,452	\$5,261	\$6,808	\$5,297
	Average Years of Service	6.29	11.92	17.81	23.17	26.70	35.27	24.79
2022	Number of Retirees	5	3	6	11	8	15	48
	Average Monthly Benefit	\$2,482	\$3,643	\$4,123	\$5,452	\$5,261	\$6,855	\$5,270
	Average Years of Service	6.67	11.92	17.81	23.17	26.70	35.27	24.45
2023	Number of Retirees	6	2	6	11	8	16	49
	Average Monthly Benefit	\$2,671	\$4,521	\$4,681	\$5,452	\$5,261	\$7,231	\$5,529
	Average Years of Service	6.56	12.34	17.60	23.17	26.70	37.38	25.23
2024	Number of Retirees	7	3	5	10	9	16	50
	Average Monthly Benefit	\$2,826	\$3,639	\$4,835	\$5,721	\$5,162	\$7,231	\$5,485
	Average Years of Service	6.89	11.58	17.68	23.26	27.03	37.38	24.91

Includes retired and disabled members.



Schedule of Average Benefit Payments as of July 1, 2024

Public Safety with Main Service		Years of Vesting Service						Total
		<10	10-14	15-19	20-24	25-29	>=30	
2019	Number of Retirees	20	13	11	20	15	25	104
	Average Monthly Benefit	\$630	\$947	\$1,466	\$1,733	\$2,018	\$3,464	\$1,852
	Average Years of Service	6.27	12.27	17.05	22.12	27.49	33.24	20.75
2020	Number of Retirees	24	14	12	19	16	28	113
	Average Monthly Benefit	\$596	\$815	\$1,491	\$1,703	\$2,138	\$3,452	\$1,830
	Average Years of Service	5.99	12.26	17.27	22.15	27.44	33.19	20.46
2021	Number of Retirees	29	15	12	17	19	31	123
	Average Monthly Benefit	\$627	\$851	\$1,491	\$1,865	\$2,266	\$3,554	\$1,900
	Average Years of Service	5.99	12.37	17.27	22.23	27.28	33.40	20.31
2022	Number of Retirees	30	15	14	18	21	34	132
	Average Monthly Benefit	\$619	\$908	\$1,570	\$1,834	\$2,222	\$3,694	\$1,965
	Average Years of Service	5.96	12.33	17.25	22.13	27.32	33.80	20.65
2023	Number of Retirees	32	16	14	20	21	38	141
	Average Monthly Benefit	\$570	\$947	\$1,555	\$1,909	\$2,222	\$3,669	\$1,981
	Average Years of Service	5.86	12.45	17.33	22.15	27.32	33.95	20.82
2024	Number of Retirees	32	15	15	21	24	41	148
	Average Monthly Benefit	\$578	\$952	\$1,677	\$1,922	\$2,671	\$3,694	\$2,121
	Average Years of Service	5.85	12.58	17.32	22.10	27.44	33.85	21.26
Public Safety without Main Service		<10	10-14	15-19	20-24	25-29	>=30	Total
2019	Number of Retirees	7	1	0	0	1	0	9
	Average Monthly Benefit	\$410	\$1,204	\$0	\$0	\$3,126	\$0	\$800
	Average Years of Service	4.44	12.58	0.00	0.00	26.17	0.00	7.76
2020	Number of Retirees	8	1	0	0	2	0	11
	Average Monthly Benefit	\$421	\$1,204	\$0	\$0	\$2,345	\$0	\$842
	Average Years of Service	4.79	12.58	0.00	0.00	27.05	0.00	9.54
2021	Number of Retirees	10	1	0	0	2	0	13
	Average Monthly Benefit	\$456	\$1,204	\$0	\$0	\$2,345	\$0	\$805
	Average Years of Service	5.06	12.58	0.00	0.00	27.05	0.00	9.02
2022	Number of Retirees	9	1	1	0	1	0	12
	Average Monthly Benefit	\$457	\$1,204	\$497	\$0	\$3,126	\$0	\$745
	Average Years of Service	5.22	12.58	16.58	0.00	26.17	0.00	8.53
2023	Number of Retirees	9	1	2	1	1	0	14
	Average Monthly Benefit	\$457	\$1,204	\$1,430	\$3,759	\$3,126	\$0	\$1,076
	Average Years of Service	5.22	12.58	17.13	23.33	26.17	0.00	10.24
2024	Number of Retirees	10	2	3	2	1	3	21
	Average Monthly Benefit	\$455	\$1,231	\$1,592	\$3,788	\$3,126	\$212	\$1,101
	Average Years of Service	5.18	12.83	17.92	22.04	26.17	35.78	14.71

Includes retired and disabled members.



Schedule of Retirees and Beneficiaries Added to and Removed from the Rolls

Main System

Plan Year	Beg. of Year		Added to Rolls		Removed from Rolls		End of Year Balance		Average	% Increase
	No.	Ann. Benefits*	No.	Ann. Benefits*	No.	Ann. Benefits*	No.**	Ann. Benefits*	Annual Benefit	in Annual Benefits
Retirement										
2015	9,230	\$ 113.0	992	\$ 19.3	(243)	\$ (2.4)	9,979	\$ 129.9	\$ 13,017	15.0%
2016	9,979	129.9	703	12.3	(288)	(2.6)	10,394	139.6	13,435	7.5%
2017	10,394	139.6	870	16.1	(307)	(3.0)	10,957	152.8	13,943	9.4%
2018	10,957	152.8	953	19.7	(372)	(3.6)	11,538	169.0	14,645	10.6%
2019	11,538	169.0	913	18.8	(334)	(3.0)	12,117	184.9	15,257	9.4%
2020	12,117	184.9	1,032	20.5	(401)	(4.3)	12,748	201.1	15,772	8.8%
2021	12,748	201.1	1,025	18.6	(412)	(4.3)	13,361	215.3	16,116	7.1%
2022	13,361	215.3	1,036	22.8	(420)	(4.7)	13,977	233.4	16,701	8.4%
2023	13,977	233.4	1,094	21.5	(316)	(4.2)	14,755	250.7	16,990	7.4%
2024	14,755	250.7	1,045	20.9	(430)	(5.5)	15,370	266.1	17,314	6.2%

* \$ in millions.

** Excludes 28 pensioners as of June 30, 2015, 35 pensioners as of June 30, 2016, 41 pensioners as of June 30, 2017, 37 pensioners as of June 30, 2018, 37 pensioners as of June 30, 2019, 42 pensioners as of June 30, 2020, 35 pensioners as of June 30, 2021, 32 pensioners as of June 30, 2022, 37 pensioners as of June 30, 2023, and 41 pensioners as of June 30, 2024 in suspended status.

Judges

Plan Year	Beg. of Year		Added to Rolls		Removed from Rolls		End of Year Balance		Average Annual Benefit	% Increase in Annual Benefits
	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits		
Retirement										
2015	38	\$ 1,720,921	6	\$ 462,888	0	\$ 0	44	\$ 2,183,809	\$ 49,632	26.9%
2016	44	2,183,809	2	85,597	(3)	(147,638)	43	2,121,768	49,343	-2.8%
2017	43	2,121,768	10	674,619	(3)	(156,433)	50	2,639,954	52,799	24.4%
2018	50	2,639,954	7	331,377	(2)	(68,572)	55	2,902,760	52,777	10.0%
2019	55	2,902,760	3	241,678	0	0	58	3,144,438	54,214	8.3%
2020	58	3,144,438	3	293,611	(1)	(94,084)	60	3,343,965	55,733	6.3%
2021	60	3,343,965	3	293,778	0	0	63	3,637,743	57,742	8.8%
2022	63	3,637,743	1	48,097	0	0	64	3,685,840	57,591	1.3%
2023	64	3,685,840	4	299,379	(2)	(63,485)	66	3,921,734	59,420	6.4%
2024	66	3,921,734	4	153,173	(3)	(128,165)	67	3,946,741	58,907	0.6%

Values prior to July 1, 2016, were calculated by the prior actuary.

Totals may not add due to rounding.



Schedule of Retirees and Beneficiaries Added to and Removed from the Rolls

Public Safety with prior Main System Service

Plan Year	Beg of Year		Added to Rolls		Removed from Rolls		End of Year Balance		Average	% Increase
	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits	Annual Benefit	in Annual Benefits
Retirement										
2015	62	\$ 1,101,617	11	\$ 301,041	0	\$ 0	73	\$ 1,402,658	\$ 19,215	27.3%
2016	73	1,402,658	7	53,522	(1)	(10,529)	79	1,445,651	18,299	3.1%
2017	79	1,445,651	11	390,805	0	0	90	1,836,456	20,405	27.0%
2018	90	1,836,456	15	371,954	(2)	(22,510)	103	2,185,900	21,222	19.0%
2019	103	2,185,900	15	309,766	(3)	(87,471)	115	2,408,195	20,941	10.2%
2020	115	2,408,195	12	223,956	(2)	(38,955)	125	2,593,195	20,746	7.7%
2021	125	2,593,195	15	399,735	(3)	(44,015)	137	2,948,915	21,525	13.7%
2022	137	2,948,915	14	341,750	(3)	(18,787)	148	3,271,877	22,107	11.0%
2023	148	3,271,877	13	345,199	(3)	(81,531)	158	3,535,545	22,377	8.1%
2024	158	3,535,545	15	507,458	(5)	(58,652)	168	3,984,351	23,716	12.7%

Public Safety without prior Main System Service

Plan Year	Beg of Year		Added to Rolls		Removed from Rolls		End of Year Balance		Average	% Increase
	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits	Annual Benefit	in Annual Benefits
Retirement										
2015	1	\$ 9,792	0	\$ 0	0	\$ 0	1	\$ 9,792	\$ 9,792	0.0%
2016	1	9,792	1	3,264	0	0	2	13,056	6,528	33.3%
2017	2	13,056	4	57,609	0	0	6	70,665	11,778	441.2%
2018	6	70,665	2	19,573	0	0	8	90,238	11,280	27.7%
2019	8	90,238	2	10,405	0	0	10	100,643	10,064	11.5%
2020	10	100,643	2	24,715	0	0	12	125,358	10,447	24.6%
2021	12	125,358	2	14,349	0	0	14	139,708	9,979	11.4%
2022	14	139,708	3	30,110	(2)	(24,143)	15	145,675	9,712	4.3%
2023	15	145,675	3	83,224	0	0	18	228,899	12,717	57.1%
2024	18	228,899	9	105,815	0	0	27	334,714	12,397	46.2%

Values prior to July 1, 2016, were calculated by the prior actuary.

Totals may not add due to rounding.



SECTION D

GASB STATEMENT No. 67 SCHEDULES

Discussion

Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67 establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability. Similarly, GASB Statement No. 68 establishes standards for state and local government employers (as well as non-employer contributing entities) to account for and disclose the net pension liability, pension expense and other information associated with providing retirement benefits to their employees (and former employees) on their basic financial statements.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain non-actuarial information, such as notes regarding accounting policies and investments, is not included in this report and the retirement system and/or plan sponsor will be responsible for preparing and disclosing that information to comply with these accounting standards.

Financial Statements

Pension plans that prepare their own, stand-alone financial statements are required to present two financial statements – a statement of fiduciary net position and a statement of changes in fiduciary net position in accordance with GASB Statement No. 67. The *statement of fiduciary net position* presents the assets and liabilities of the pension plan at the end of the pension plan's reporting period. The *statement of changes in fiduciary net position* presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expenses, and net increase or decrease in the fiduciary net position.

Notes to Financial Statements

GASB Statement No. 68 requires the notes of the employer's financial statements to disclose the total pension expense, the pension plan's liabilities and assets, and deferred outflows and inflows of resources related to pensions.

GASB Statement Nos. 67 and 68 require the notes of the financial statements for the employers and pension plans to include certain additional information. The list of disclosure items should include:

- A description of benefits provided by the plan;
- The type of employees and number of members covered by the pension plan;
- A description of the plan's funding policy, which includes member and employer contribution requirements;
- The pension plan's investment policies;
- The pension plan's fiduciary net position, net pension liability and the pension plan's fiduciary net position as a percentage of the total pension liability;
- The net pension liability using a discount rate that is 1% higher and 1% lower than used to calculate the total pension liability and net pension liability for financial reporting purposes;
- Significant assumptions and methods used to calculate the total pension liability;
- Inputs to the discount rates; and
- Certain information about mortality assumptions and the dates of experience studies.

GASB Statement No. 67

Retirement systems that issue stand-alone financial statements are required to disclose additional information in accordance with GASB Statement No. 67. This information includes:

- The composition of the pension plan's board and the authority under which benefit terms may be amended;
- A description of how fair value is determined;
- Information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5%, receivables and insurance contracts excluded from plan assets; and
- Annual money-weighted rate of return.

Required Supplementary Information

GASB Statement No. 67 requires a 10-year fiscal history of:

- Sources of changes in the net pension liability;
- Information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll; and
- A comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.

Timing of the Actuarial Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. The net pension liability and pension expense should be measured as of the pension plan's fiscal year end (measurement date) on a date that is within the employer's prior fiscal year. If the actuarial valuation used to determine the total pension liability is not calculated as of the measurement date, the total pension liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total pension liability shown in this report is based on an actuarial valuation performed as of June 30, 2024, and a measurement date of June 30, 2024.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) a tax-exempt municipal bond rate based on an index of 20-year mixed maturity general obligation bonds with an average Standard & Poor's Corp.'s AA credit rating (which is published by Fidelity) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this actuarial valuation, the expected rate of return on pension plan investments is 6.50%; the municipal bond rate is 3.97% (based on the most recent date available on or before the measurement date of the "20-year Municipal GO Index" from Fidelity); and the resulting Single Discount Rate is 6.50%.



GASB Statement No. 67

Executive Summary as of June 30, 2024

	Main System	Judges	Public Safety with Prior Main Service	Public Safety without Prior Main Service	Total
Actuarial Valuation Date	7/1/2024	7/1/2024	7/1/2024	7/1/2024	7/1/2024
Measurement Date of the Net Pension Liability	7/1/2024	7/1/2024	7/1/2024	7/1/2024	7/1/2024
Plan's Fiscal Year Ending Date (Reporting Date) for GASB 67	6/30/2024	6/30/2024	6/30/2024	6/30/2024	6/30/2024

Membership

Number of					
- Retirees and Beneficiaries	15,370	67	168	27	15,632
- Inactive, Nonretired Members	17,864	1	590	212	18,667
- Active Members	23,839	60	1,649	251	25,799
- Total	57,073	128	2,407	490	60,098
Covered Payroll	\$ 1,311,798,089	\$ 9,990,447	\$ 117,265,263	\$ 15,868,015	\$ 1,454,921,813

Net Pension Liability

Total Pension Liability	\$ 5,848,415,047	\$ 62,678,213	\$ 282,550,656	\$ 25,324,652	\$ 6,218,968,568
Plan Fiduciary Net Position	3,978,059,001	70,567,926	192,536,667	24,123,755	4,265,287,349
Net Pension Liability	\$ 1,870,356,046	\$ (7,889,713)	\$ 90,013,989	\$ 1,200,897	\$ 1,953,681,219
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	68.02 %	112.59 %	68.14 %	95.26 %	68.59 %
Net Pension Liability as a Percentage of Covered Payroll	142.58 %	(78.97)%	76.76 %	7.57 %	134.28 %

Development of the Single Discount Rate

Single Discount Rate	6.50 %	6.50 %	6.50 %	6.50 %	6.50 %
Long-Term Expected Rate of Investment Return	6.50 %	6.50 %	6.50 %	6.50 %	6.50 %
Long-Term Municipal Bond Rate*	3.97 %	3.97 %	3.97 %	3.97 %	3.97 %
Last year ending June 30 in the 2025 to 2124 projection period for which projected benefit payments are fully funded	2124	2124	2124	2124	2124

*Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of June 30, 2024. In describing this index, Fidelity notes that the municipal curves are constructed using option-adjusted analytics of a diverse population of over 10,000 tax exempt securities.



GASB Statement No. 67

Schedules of Required Supplementary Information Schedule of Net Pension Liability and Related Ratios Multiyear

Last 10 Fiscal Years (which may be built prospectively)

FY Ending 30-Jun	System	Total Pension Liability ¹	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll ²	Net Pension Liability as a % of Covered Payroll
2015	Main	\$ 2,976,071,808	\$ 2,296,088,880	\$ 679,982,928	77.15 %	\$ 946,197,522	71.86 %
2015	Judges	39,381,443	44,137,412	(4,755,969)	112.08 %	6,964,502	(68.29)%
2015	Public Safety with prior Main System service	34,317,782	28,691,976	5,625,806	83.61 %	16,732,974	33.62 %
2015	Public Safety without prior Main System service	2,675,506	2,792,541	(117,035)	104.37 %	3,641,404	(3.21)%
2015	Total PERS	3,052,446,539	2,371,710,809	680,735,730	77.70 %	973,536,402	69.92 %
2016	Main	\$ 3,299,381,100	\$ 2,324,783,623	\$ 974,597,477	70.46 %	\$ 1,007,764,043	96.71 %
2016	Judges	39,819,443	44,269,616	(4,450,173)	111.18 %	7,937,062	(56.07)%
2016	Public Safety with prior Main System service	53,865,148	42,406,694	11,458,454	78.73 %	28,225,868	40.60 %
2016	Public Safety without prior Main System service	3,499,776	3,435,724	64,052	98.17 %	4,621,494	1.39 %
2016	Total PERS	3,396,565,467	2,414,895,657	981,669,810	71.10 %	1,048,548,467	93.62 %
2017	Main	\$ 4,227,873,933	\$ 2,620,545,753	\$ 1,607,328,180	61.98 %	\$ 1,020,843,253	157.45 %
2017	Judges	45,789,468	49,576,578	(3,787,110)	108.27 %	7,866,090	(48.14)%
2017	Public Safety with prior Main System service	73,040,417	51,024,228	22,016,189	69.86 %	28,765,678	76.54 %
2017	Public Safety without prior Main System service	7,667,872	6,689,031	978,841	87.23 %	5,896,777	16.60 %
2017	Total PERS	4,354,371,690	2,727,835,589	1,626,536,101	62.65 %	1,063,371,798	152.96 %
2018	Main	\$ 4,536,928,161	\$ 2,849,319,075	\$ 1,687,609,086	62.80 %	\$ 1,027,317,202	164.27 %
2018	Judges	47,011,600	53,493,730	(6,482,130)	113.79 %	8,008,841	(80.94)%
2018	Public Safety with prior Main System service	82,162,213	58,857,977	23,304,236	71.64 %	34,521,069	67.51 %
2018	Public Safety without prior Main System service	9,479,781	8,509,494	970,287	89.76 %	6,110,843	15.88 %
2018	Total PERS	4,675,581,755	2,970,180,276	1,705,401,479	63.53 %	1,075,957,954	158.50 %
2019	Main	\$ 4,136,252,987	\$ 2,964,180,628	\$ 1,172,072,359	71.66 %	\$ 1,040,170,174	112.68 %
2019	Judges	44,558,881	55,455,075	(10,896,194)	124.45 %	8,164,306	(133.46)%
2019	Public Safety with prior Main System service	79,501,182	67,134,798	12,366,384	84.45 %	42,991,270	28.76 %
2019	Public Safety without prior Main System service	9,026,915	9,960,580	(933,665)	110.34 %	7,090,395	(13.17)%
2019	Total PERS	4,269,339,965	3,096,731,081	1,172,608,884	72.53 %	1,098,416,146	106.75 %
2020	Main	\$ 6,157,520,698	\$ 3,011,499,294	\$ 3,146,021,404	48.91 %	\$ 1,103,120,694	285.19 %
2020	Judges	63,768,454	56,273,160	7,495,294	88.25 %	8,438,678	88.82 %
2020	Public Safety with prior Main System service	139,828,360	74,280,460	65,547,900	53.12 %	45,383,846	144.43 %
2020	Public Safety without prior Main System service	18,682,804	12,298,225	6,384,579	65.83 %	10,824,717	58.98 %
2020	Total PERS	6,379,800,316	3,154,351,139	3,225,449,177	49.44 %	1,167,767,935	276.21 %
2021	Main	\$ 4,795,054,158	\$ 3,752,753,612	\$ 1,042,300,546	78.26 %	\$ 1,132,390,738	92.04 %
2021	Judges	53,424,304	68,256,490	(14,832,186)	127.76 %	8,654,665	(171.38)%
2021	Public Safety with prior Main System service	128,468,679	111,897,170	16,571,509	87.10 %	61,533,502	26.93 %
2021	Public Safety without prior Main System service	14,595,856	16,815,428	(2,219,572)	115.21 %	11,097,033	(20.00)%
2021	Total PERS	4,991,542,997	3,949,722,700	1,041,820,297	79.13 %	1,213,675,937	85.84 %
2022	Main	6,325,032,015	3,444,965,426	2,880,066,589	54.47 %	1,160,836,487	248.10 %
2022	Judges	65,819,245	62,598,397	3,220,848	95.11 %	8,729,372	36.90 %
2022	Public Safety with prior Main System service	193,089,067	110,992,147	82,096,920	57.48 %	64,746,118	126.80 %
2022	Public Safety without prior Main System service	23,528,893	17,215,932	6,312,961	73.17 %	13,995,584	45.11 %
2022	Total PERS	6,607,469,220	3,635,771,902	2,971,697,318	55.03 %	1,248,307,560	238.06 %
2023	Main	5,559,270,755	3,631,018,404	1,928,252,351	65.31 %	1,222,870,520	157.68 %
2023	Judges	59,565,058	66,078,134	(6,513,076)	110.93 %	8,954,748	(72.73)%
2023	Public Safety with prior Main System service	187,025,504	126,443,916	60,581,588	67.61 %	71,555,079	84.66 %
2023	Public Safety without prior Main System service	22,264,260	20,400,288	1,863,972	91.63 %	14,895,770	12.51 %
2023	Total PERS	5,828,125,577	3,843,940,742	1,984,184,835	65.96 %	1,318,276,116	150.51 %
2024	Main	\$ 5,848,415,047	\$ 3,978,059,001	\$ 1,870,356,046	68.02 %	\$ 1,311,798,089	142.58 %
2024	Judges	62,678,213	70,567,926	(7,889,713)	112.59 %	9,990,447	(78.97)%
2024	Public Safety with prior Main System service	282,550,656	192,536,667	90,013,989	68.14 %	117,265,263	76.76 %
2024	Public Safety without prior Main System service	25,324,652	24,123,755	1,200,897	95.26 %	15,868,015	7.57 %
2024	Total PERS	6,218,968,568	4,265,287,349	1,953,681,219	68.59 %	1,454,921,813	134.28 %

¹ The total pension liability is based on a single discount rate of 8.00% for fiscal years prior to 2017, 6.44% for fiscal year 2017, 6.32% for fiscal year 2018, 7.50% for fiscal year 2019, 4.64% for fiscal year 2020, 7.00% for fiscal year 2021, 5.10% for fiscal year 2022, and 6.50% for fiscal years 2023 and 2024.

² Prior to the actuarial valuation as of July 1, 2016, annual payroll is based on projected annual compensation for the upcoming year. Beginning with the actuarial valuation as of July 1, 2016, annual payroll and average annual pay are based on annualized payroll as of the actuarial valuation date.

Values prior to July 1, 2016, were calculated by the prior actuary.



GASB Statement No. 67

Schedule of Changes in Net Pension Liability and Related Ratios Current Report Period Fiscal Year Ended June 30, 2024

	Main System	Judges	Public Safety		Total PERS
			with Prior Main System Service	without Prior Main System Service	
Total pension liability					
Service cost	\$ 152,758,636	\$ 2,284,204	\$ 12,179,130	\$ 2,235,348	\$ 169,457,318
Interest on the total pension liability	357,253,880	3,822,875	12,388,254	1,505,684	374,970,693
Changes of benefit terms	(1,787,775)	-	-	-	(1,787,775)
Difference between expected and actual experience ¹	61,809,703	817,512	75,896,874	(274,319)	138,249,770
Changes of assumptions	0	0	0	0	0
Benefit payments and refunds	(280,890,152)	(3,811,436)	(4,939,106)	(406,321)	(290,047,015)
Net change in total pension liability	289,144,292	3,113,155	95,525,152	3,060,392	390,842,991
Total pension liability - beginning²	5,559,270,755	59,565,058	187,025,504	22,264,260	5,828,125,577
Total pension liability - ending (a)²	\$ 5,848,415,047	\$ 62,678,213	\$ 282,550,656	\$ 25,324,652	\$ 6,218,968,568
Plan fiduciary net position					
Contributions - Employer	\$ 107,984,538	\$ 1,718,963	\$ 11,939,147	\$ 1,357,970	\$ 123,000,618
Contributions - Employee	94,573,157	784,910	5,837,157	878,676	102,073,900
Contributions - Transfer from General Fund	135,000,000	0	0	0	135,000,000
Contributions - Service credit repurchases	6,154,423	-	366,550	18,949	6,539,922
Pension plan net investment income	325,834,469	5,826,616	14,183,525	1,897,457	347,742,067
Benefit payments and refunds	(280,890,152)	(3,811,436)	(4,939,106)	(406,321)	(290,047,015)
Pension plan administrative expense	(2,814,595)	(29,261)	(118,662)	(23,264)	(2,985,782)
Transfers and Other Income	(38,801,243)	-	38,824,140	-	22,897
Net change in plan fiduciary net position	347,040,597	4,489,792	66,092,751	3,723,467	421,346,607
Plan fiduciary net position - beginning	3,631,018,404	66,078,134	126,443,916	20,400,288	3,843,940,742
Plan fiduciary net position - ending (b)	\$ 3,978,059,001	\$ 70,567,926	\$ 192,536,667	\$ 24,123,755	\$ 4,265,287,349
Net pension liability - ending (a) - (b)	\$ 1,870,356,046	\$ (7,889,713)	\$ 90,013,989	\$ 1,200,897	\$ 1,953,681,219
Plan fiduciary net position as a percentage					
of total pension liability	68.02 %	112.59 %	68.14 %	95.26 %	68.59 %
Covered-employee payroll	\$ 1,311,798,089	\$ 9,990,447	\$ 117,265,263	\$ 15,868,015	\$ 1,454,921,813
Net pension liability as a percentage					
of covered-employee payroll	142.58 %	(78.97)%	76.76 %	7.57 %	134.28 %

¹ Includes liability attributable to transfer of members and service credit repurchases.

² The total pension liability is based on a single discount rate of 6.50% for the beginning of the fiscal year and 6.50% for the end of the fiscal year.



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Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

The following presents the net pension liability/(asset) of the PERS, calculated using the current single discount rate of 6.50%, as well as what the PERS' net pension liability/(asset) would be if it were calculated using a discount rate that is 1-percentage point lower (5.50%) or is 1-percentage point higher (7.50%) than the current rate.

System	1% Decrease	Current Single Discount	1% Increase
	5.50%	Rate Assumption 6.50%	7.50%
Main System	\$2,643,255,481	\$1,870,356,046	\$1,229,338,099
Judges	(1,803,761)	(7,889,713)	(13,108,840)
Public Safety			
With Main System Service	139,872,179	90,013,989	49,895,861
Without Main System Service	5,655,192	1,200,897	(2,349,114)
Total PERS	2,786,979,091	1,953,681,219	1,263,776,006

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System Asset Allocation

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return	Allocation-Weighted Long-Term Expected Real Rate of Return
Domestic Equities	31.90 %	4.10 %	1.30 %
International Equities	19.10 %	7.00 %	1.34 %
Private Equity	7.00 %	8.50 %	0.60 %
Domestic Fixed Income	23.00 %	2.88 %	0.66 %
Global Real Assets	19.00 %	6.10 %	1.16 %
Cash Equivalents	0.00 %	0.00 %	0.00 %
Total	100.00 %		5.06 %

Asset allocation and long-term expected arithmetic returns were provided by RIO and are net of inflation of 2.40%.

The discount rate used to measure the total pension liability of the total PERS plan was 6.50%. The projection of cash flows used to determine the discount rate assumed plan member and statutory/Board approved employer contributions will be made at the statutory rates described in this report. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries are not included. Based on those assumptions, the Total PERS pension plan's fiduciary net position was projected to be sufficient to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all projected benefit payments.

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Schedule of Contributions Multiyear

FY Ending 30-Jun	System	Actuarially Determined Contribution ¹	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll ²	Actual Contribution as a % of Covered Payroll
2015	Main	\$ 104,636,238	\$ 67,669,374	\$ 36,966,864	\$ 946,197,522	7.15%
2015	Judges	1,030,705	1,225,358	(194,653)	6,964,502	17.59%
2015	Public Safety with prior Main System service	1,577,004	1,638,384	(61,380)	16,732,974	9.79%
2015	Public Safety without prior Main System service	270,026	309,419	(39,393)	3,641,404	8.50%
2015	Total PERS	107,513,973	70,842,535	36,671,438	973,536,402	7.28%
2016	Main	\$ 121,358,455	\$ 72,960,487	\$ 48,397,968	\$ 1,007,764,043	7.24%
2016	Judges	781,713	1,364,327	(582,614)	7,937,062	17.19%
2016	Public Safety with prior Main System service	1,828,196	2,384,097	(555,901)	28,225,868	8.45%
2016	Public Safety without prior Main System service	367,803	371,664	(3,861)	4,621,494	8.04%
2016	Total PERS	124,336,167	77,080,576	47,255,591	1,048,548,467	7.35%
2017	Main	\$ 112,981,892	\$ 74,023,555	\$ 38,958,337	\$ 1,020,843,253	7.25%
2017	Judges	734,399	1,407,326	(672,927)	7,866,090	17.89%
2017	Public Safety with prior Main System service	2,514,672	3,005,338	(490,666)	28,765,678	10.45%
2017	Public Safety without prior Main System service	333,237	497,352	(164,115)	5,896,777	8.43%
2017	Total PERS	116,564,200	78,933,571	37,630,629	1,063,371,798	7.42%
2018	Main	\$ 122,272,212	\$ 75,666,300	\$ 46,605,912	\$ 1,027,317,202	7.37%
2018	Judges	393,904	1,413,703	(1,019,799)	8,008,841	17.65%
2018	Public Safety with prior Main System service	2,602,245	3,175,608	(573,363)	34,521,069	9.20%
2018	Public Safety without prior Main System service	445,737	471,598	(25,861)	6,110,843	7.72%
2018	Total PERS	125,714,098	80,727,209	44,986,889	1,075,957,954	7.50%
2019	Main	123,630,789	75,730,260	47,900,529	1,040,170,174	7.28%
2019	Judges	168,596	1,425,454	(1,256,858)	8,164,306	17.46%
2019	Public Safety with prior Main System service	2,911,194	3,762,300	(851,106)	42,991,270	8.75%
2019	Public Safety without prior Main System service	418,346	670,304	(251,958)	7,090,395	9.45%
2019	Total PERS	127,128,925	81,588,318	45,540,607	1,098,416,146	7.43%
2020	Main	135,980,074	78,110,561	57,869,513	1,103,120,694	7.08%
2020	Judges	240,210	1,570,506	(1,330,296)	8,438,678	18.61%
2020	Public Safety with prior Main System service	3,817,846	4,845,254	(1,027,408)	45,383,846	10.68%
2020	Public Safety without prior Main System service	499,195	977,712	(478,517)	10,824,717	9.03%
2020	Total PERS	140,537,325	85,504,033	55,033,292	1,167,767,935	7.32%
2021	Main	151,280,352	83,508,849	67,771,503	1,132,390,738	7.37%
2021	Judges	765,599	1,389,483	(623,884)	8,654,665	16.05%
2021	Public Safety with prior Main System service	4,581,035	5,470,675	(889,640)	61,533,502	8.89%
2021	Public Safety without prior Main System service	916,045	896,633	19,412	11,097,033	8.08%
2021	Total PERS	157,543,031	91,265,640	66,277,391	1,213,675,937	7.52%
2022	Main	149,553,767	87,430,734	62,123,033	1,160,836,487	7.53%
2022	Judges	768,657	1,661,040	(892,383)	8,729,372	19.03%
2022	Public Safety with prior Main System service	6,185,915	6,507,951	(322,036)	64,746,118	10.05%
2022	Public Safety without prior Main System service	881,328	1,031,058	(149,730)	13,995,584	7.37%
2022	Total PERS	157,389,667	96,630,783	60,758,884	1,248,307,560	7.74%
2023	Main	180,867,772	92,511,041	88,356,731	1,222,870,520	7.57%
2023	Judges	1,069,985	1,558,939	(488,954)	8,954,748	17.41%
2023	Public Safety with prior Main System service	7,946,873	6,658,082	1,288,791	71,555,079	9.30%
2023	Public Safety without prior Main System service	1,389,262	1,205,265	183,997	14,895,770	8.09%
2023	Total PERS	191,273,892	101,933,327	89,340,565	1,318,276,116	7.73%
2024 ³	Main	\$ 190,776,432	\$ 242,984,538	\$ (52,208,106)	\$ 1,311,798,089	18.52%
2024	Judges	1,037,938	1,718,963	(681,025)	9,990,447	17.21%
2024	Public Safety with prior Main System service	11,184,053	11,939,147	(755,094)	117,265,263	10.18%
2024	Public Safety without prior Main System service	1,476,246	1,357,970	118,276	15,868,015	8.56%
2024	Total PERS	204,474,669	258,000,618	(53,525,949)	1,454,921,813	17.73%

¹ The actuarially determined contribution was based on an investment return assumption of 8.00% and a payroll growth assumption of 4.50% (4.00% for Judges) for fiscal years ending 2014 through 2017, an investment return assumption of 7.75% and a payroll growth assumption of 3.75% (3.25% for Judges) for fiscal year ending 2018, an investment return assumption of 7.50% and a payroll growth assumption of 3.75% (3.25% for Judges) for fiscal year ending 2019, an investment return assumption of 7.00% and a payroll growth assumption of 3.50% (3.00% for Judges) for fiscal years ending 2020, 2021, 2022, and an investment return assumption of 6.50% and a payroll growth assumption of 3.50% (3.00% for Judges) for fiscal years ending 2023 and 2024.

² Prior to the actuarial valuation as of July 1, 2016, annual payroll is based on projected annual compensation for the upcoming year. Beginning with the actuarial valuation as of July 1, 2016, annual payroll and average annual pay are based on annualized payroll as of the actuarial valuation date.

³ The Main System employer contribution for fiscal year 2024 includes a \$135 million cash infusion. Values prior to July 1, 2016, were calculated by the prior actuary.



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Notes The actuarially determined contribution amount is calculated as of June 30, 12 months prior to the end of the fiscal year in which the contributions are reported.

Methods and Assumptions Used to Determine Actuarially Determined Contribution Rates:

Valuation Date	July 1, 2023
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Open Period
	Assumed annual payroll growth of 3.50% (3.00% for Judges)
Remaining Amortization Period	20 years
Asset Valuation Method	5-Year smoothed market
Inflation	2.25%
Salary Increases	3.50% to 17.75% including inflation
Investment Rate of Return	6.50%
Retirement Age	Age-based table of rates that are specific to the type of eligibility condition.
Mortality	Sex-distinct Pub-2010 tables for General Employees, with scaling based on actual experience. Respective corresponding tables were used for healthy retirees, disabled retirees, and active members. Mortality rates are projected from 2010 using the MP-2019 scale.

Other Information:

Notes

The benefit accrual rate for members first enrolled on or after January 1, 2020 in the Main and Public Safety Systems is 1.75% (compared to 2.00% for members enrolled before January 1, 2020).

The investment return assumption was updated from 7.00% to 6.50% beginning with the actuarial valuation as of July 1, 2022. All other actuarial assumptions used in the actuarial valuation as of July 1, 2022 were based on an experience review for the period from July 1, 2014 to July 1, 2019, and were adopted for first use commencing with the actuarial valuation as of July 1, 2020.

The employer rates to the System are the statutory/Board approved contribution rates of 8.12% of payroll for the Main System (9.26% for members enrolled on or after January 1, 2020), 17.52% for the Judges System, 11.40% for Public Safety with prior Main System service System, 22.26% for BCI, 14.34% for State Public Safety, and 9.16% for Public Safety without prior Main System service System. In 2023, House Bill 1040 was passed, which closes the Main System to employees newly enrolled into the system on January 1, 2025 and later. The state employer contribution for 2026 and later was changed to be the amount sufficient to fund the Main System on actuarial basis, with the amortization of the unfunded liability determined on a level percent of payroll basis over a closed period beginning on January 1, 2026 and ending June 30, 2056.

Legislation was passed relating to the Public Safety with Prior Service System. The Public Safety with Prior Service System was expanded to allow peace officers employed by the State to participate. The provisions are similar to the Public Safety with Prior Service System, but with a 6.00 percent employee contribution rate. The benefit multiplier and the vesting requirements for the Bureau of Criminal Investigation group were changed.

Methods and Assumptions Used to Determine GASB 67/68 Net Pension Liability:

Valuation Date	July 1, 2024
Actuarial Cost Method	Entry Age Normal
Asset Valuation Method	Plan Fiduciary Net Position (Market value of assets, no asset smoothing)
Inflation	2.25%
Salary Increases	3.50% to 17.75% including inflation
Single Discount Rate	6.50% (Based on an investment return assumption of 6.50% and a municipal bond rate of 3.86%)
Retirement Age	Age-based table of rates that are specific to the type of eligibility condition.
Mortality	Sex-distinct Pub-2010 tables for General Employees, with scaling based on actual experience. Respective corresponding tables were used for healthy retirees, disabled retirees, and active members. Mortality rates are projected from 2010 using the MP-2019 scale.

Other Information:

Notes

The employer rates to the System are the statutory/Board approved contribution rates of 8.12% of payroll for the Main System (9.26% for members enrolled on or after January 1, 2020), 17.52% for the Judges System, 11.40% for Public Safety with prior Main System service System, 22.26% for BCI, 14.34% for State Public Safety, and 9.16% for Public Safety without prior Main System service System.

The benefit accrual rate for members first enrolled on or after January 1, 2020 in the Main and Public Safety Systems is 1.75% (compared to 2.00% for members enrolled before January 1, 2020).

The investment return assumption was updated from 7.00% to 6.50% beginning with the actuarial valuation as of July 1, 2022. All other actuarial assumptions used in the actuarial valuation as of July 1, 2022 were based on an experience review for the period from July 1, 2014 to July 1, 2019, and were adopted for first use commencing with the actuarial valuation as of July 1, 2020.

In 2023, House Bill 1040 was passed, which closes the Main System to employees newly enrolled into the system on January 1, 2025 and later. The state employer contribution for 2026 and later was changed to be the amount sufficient to fund the Main System on actuarial basis, with the amortization of the unfunded liability determined on a level percent of payroll basis over a closed period beginning on January 1, 2026 and ending June 30, 2056.



SECTION E

ACTUARIAL VALUATION PROCEDURES

Actuarial Assumptions in the Actuarial Valuation Process

Normal cost and the allocation of benefit values between service rendered before and after the actuarial valuation date were determined using the **Entry Age Normal** Actuarial Cost Method. Under this Method, a Normal Cost is developed by spreading the actuarial value of benefits expected to be received by each active participant over the total working lifetime of that participant, from date of hire to termination, as a level percentage of pay.

Financing of Unfunded Actuarial Accrued Liabilities. The unfunded actuarial accrued liability is amortized using 20-year open level-percentage of pay amortization of the unfunded liability as of the actuarial valuation date for purposes of calculating the Actuarially Determined Employer Contribution (ADEC). The state employer contribution to the Main System for 2026 and later will be the amount sufficient to fund the Main System on an actuarial basis, with the amortization of the unfunded liability determined on a level percent of payroll basis over a closed period beginning on January 1, 2026 and ending June 30, 2056.

Actuarial Value of Pension Plan Assets. The calculated value is determined by adjusting the market value of assets to reflect the investment gains and losses (the difference between the actual investment return and the expected investment return) during each of the last five years at the rate of 20 percent per year. This asset smoothing method was adopted by the Board for use beginning with the July, 1 2017 actuarial valuation. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017.

Actuarial Valuation Assumptions. The contribution and benefit values of the System are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the actuarial cost method described above.

The principal areas of financial risk which require assumptions about future experiences are:

- Long-term rates of investment return to be generated by the assets of the Plan;
- Patterns of pay increases to members;
- Rates of mortality among members, retirees and beneficiaries;
- Rates of withdrawal of active members;
- Rates of disability among members; and
- The age patterns of actual retirement.

In an actuarial valuation, the monetary effect of each assumption is calculated for as long as a present covered person survives; a period of time which can be as long as a century.

Actual experience of the Plan will not coincide exactly with assumed experience. Each actuarial valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

Actuarial Assumptions in the Actuarial Valuation Process

From time-to-time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations). Thus, an experience review of the North Dakota Public Employees Retirement System for the period July 1, 2014 to July 1, 2019, was performed to compare the demographic and economic experience against the actuarial assumptions used in the actuarial valuations. Most of the actuarial assumptions described in this section were adopted by the Board for use beginning with the July 1, 2020 actuarial valuation.

All actuarial assumptions are expectations of future experience, not current market measures.

The actuarial assumptions were provided by, and are the responsibility of, the NDPERS Board.

Actuarial Valuation Assumptions

Current Actuarial Valuation Assumptions and Methods

The assumed rate of investment return used is 6.50 percent, net of investment expenses, annually. This assumption was adopted by the Board for use beginning with the July 1, 2022 actuarial valuation.

The assumed rate of price inflation is 2.25 percent. This assumption was adopted by the Board for use beginning with the July 1, 2020 actuarial valuation.

No Cost of Living Adjustments (COLA) are provided to benefit recipients. Therefore, there is no COLA assumption for this actuarial valuation.

The rates of annual salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefit amounts will be based.

Service At Beginning of Year	Main System		Public Safety	Judges
	State Employee	Non-State Employee		
0	10.75%	13.25%	17.75%	
1	7.50%	8.00%	15.00%	
2	5.75%	7.25%	12.75%	
3			7.25%	
4			7.25%	
Age*				
Under 30	5.75%	7.25%	6.75%	3.00%
30-34	5.75%	6.75%	6.75%	3.00%
35-39	5.75%	6.75%	6.25%	3.00%
40-44	5.25%	6.25%	6.25%	3.00%
45-49	5.25%	6.25%	5.25%	3.00%
50-54	4.75%	5.75%	5.25%	3.00%
55-59	4.50%	5.50%	5.25%	3.00%
60-64	4.00%	4.75%	5.25%	3.00%
65-69	4.00%	4.75%	4.50%	3.00%
70+	3.50%	4.50%	4.25%	3.00%

**Age-based salary increase rates apply for employees with three or more years of service in the Main System, five or more years of service in the Public Safety Systems and for all employees in the Judges System.*

The assumed rate of total payroll growth used in amortizing the unfunded liability as a level percentage of pay is:

Main System and Public Safety: 3.50 percent

Judges: 3.00 percent

This assumption was adopted by the Board for use beginning with the July 1, 2020 actuarial valuation.



Actuarial Valuation Assumptions

The mortality assumptions are as follows:

Type	Assumption	Male Scaling Factor	Female Scaling Factor
Post-Retirement Non-Disabled	Pub-2010 Healthy Retiree Mortality Table (for General Employees), sex distinct	103%	101%
Post-Retirement Disabled	Pub-2010 Disabled Retiree Mortality Table (for General Employees), sex distinct	117%	112%
Pre-Retirement	Pub-2010 Employee Mortality Table (for General Employees), sex distinct	92%	92%

Mortality is projected from 2010 with generational mortality improvement using the MP-2019 two-dimensional mortality improvement scales.

Following is a table with the life expectancies by age as of the actuarial valuation date.

Age	Healthy Mortality		Disabled Mortality	
	Future Life		Future Life	
	Expectancy (years) in 2024		Expectancy (years) in 2024	
	Male	Female	Male	Female
20	67.40	70.84	50.10	54.69
25	62.02	65.44	45.36	49.54
30	56.65	60.04	40.57	44.43
35	51.32	54.67	36.14	39.71
40	46.03	49.32	32.00	35.38
45	40.77	44.00	28.05	31.35
50	35.65	38.79	24.39	27.64
55	30.76	33.81	21.13	24.34
60	26.04	28.92	18.20	21.28
65	21.53	24.16	15.48	18.17
70	17.24	19.59	12.84	14.93
75	13.29	15.31	10.24	11.76
80	9.80	11.45	7.83	8.93
85	6.94	8.18	5.76	6.63
90	4.83	5.68	4.12	4.93
95	3.40	3.96	2.97	3.58
100	2.42	2.77	2.12	2.49
105	1.82	2.02	1.57	1.80

Actuarial Valuation Assumptions

Rates of separation from active membership are represented by the following table (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members terminating employment.

Service and Age-Based Rates for First Five Years of Service						
Service Beginning of Year	Main System			Public Safety		
	Age					
	Under 30	30-39	40+	Under 30	30-39	40+
0	28.00%	20.00%	17.00%	27.00%	19.00%	16.00%
1	24.00%	17.00%	14.00%	25.00%	19.00%	16.00%
2	18.00%	14.00%	12.00%	20.00%	16.00%	14.00%
3	16.00%	13.00%	12.00%	17.00%	14.00%	14.00%
4	13.00%	11.00%	11.00%	17.00%	10.00%	10.00%
Age	Age-Based Rates Only after First Five Years of Service					
	Main System			Public Safety		
20-24	11.00%			10.00%		
25-29	10.00%			10.00%		
30-34	6.50%			7.50%		
35-39	5.50%			7.50%		
40-44	4.50%			5.00%		
45-49	4.20%			5.00%		
50-54	3.90%			5.00%		
55-59	3.60%			5.00%		
60+	3.30%			5.00%		

No pre-retirement termination is assumed for Judges.

Vested participants who terminate are assumed to elect the option with the greater present value:

- 1) *A refund of their accumulated contributions with interest or*
- 2) *A deferred benefit.*

Withdrawal rates end upon eligibility for early retirement.

Early retirement eligibility is as follows:

Main System: Earlier of (i) age 55 and 3 years of service, and (ii) eligibility for Rule of 85. For members hired on or after 1/1/2016, earlier of (i) age 60 and 3 years of service, and (ii) eligibility for Rule of 90.

Public Safety: Age 50 and 3 years of service.

Account Balance Due to Vested Employer Contribution (PEP): Participation Under Chapter 54-52.2: If not elected: None. If elected: 100% of active members of the Main System and Public Safety. Contribution: Maximum allowed, based on service at the beginning of the Plan year.



Actuarial Valuation Assumptions

Rates of disability:

Before age 65: Males: 15.00% of OASDI disability incidence rates.
Females: 8.50% of OASDI disability incidence rates.

Age 65 and later: 0.15% per year.

Rates of disability were as follows:

Age	All Plans	
	Male	Female
20	0.0090%	0.0051%
25	0.0128%	0.0073%
30	0.0165%	0.0094%
35	0.0221%	0.0125%
40	0.0330%	0.0187%
45	0.0539%	0.0306%
50	0.0909%	0.0515%
55	0.1513%	0.0858%
60	0.2440%	0.1383%
65	0.1500%	0.1500%

Social Security Disability (for Judges' disability benefit offset):

Eligibility: 50%
Consumer Price Index Increases: 2.25% per annum
Wage Base Increases: 3.00% per annum

Workers' Compensation (for Judges' disability benefit offset):

None assumed.

Actuarial Valuation Assumptions

Rates of retirement for members eligible to retire during the next year were as follows:

Age	Main System			Public Safety		Judges	
	Reduced	Unreduced - Rule of 85	Unreduced - Not Rule of 85	Rule of 85	Not Rule of 85	Rule of 85	Not Rule of 85
50		50%		25%	4%		
51		20%		25%	4%		
52		20%		25%	4%		
53		20%		25%	4%		
54		20%		25%	4%		
55	1%	8%		25%	10%	10%	2%
56	1%	8%		25%	10%	10%	2%
57	1%	8%		25%	10%	10%	2%
58	1%	9%		25%	10%	10%	2%
59	2%	9%		25%	10%	10%	2%
60	2%	9%		25%	10%	10%	2%
61	4%	15%		25%	10%	10%	2%
62	8%	20%		50%	25%	10%	2%
63	8%	20%		50%	25%	10%	2%
64	8%	20%		50%	25%	10%	2%
65		35%	20%	50%	50%	100%	10%
66		35%	20%	50%	50%	100%	10%
67		20%	15%	50%	50%	100%	10%
68		20%	15%	50%	50%	100%	10%
69		20%	15%	50%	50%	100%	10%
70		20%	15%	100%	50%	100%	20%
71		20%	15%	100%	50%	100%	20%
72		20%	15%	100%	50%	100%	20%
73		20%	15%	100%	50%	100%	20%
74		20%	15%	100%	50%	100%	20%
75		50%	50%	100%	100%	100%	100%
76		50%	50%				
77		50%	50%				
78		50%	50%				
79		50%	50%				
80+		100%	100%				

Rates of retirement for Terminated Vested members eligible to retire during the next year were as follows:

Age	Main System			Public Safety		Judges	
	Reduced	Unreduced - Rule of 85	Unreduced - Not Rule of 85	Rule of 85	Not Rule of 85	Rule of 85	Not Rule of 85
50		70%		25%	10%		
51		70%		25%	10%		
52		70%		25%	10%		
53		70%		25%	10%		
54		70%		25%	10%		
55	1%	70%		25%	10%	10%	2%
56	1%	70%		25%	10%	10%	2%
57	1%	70%		25%	10%	10%	2%
58	1%	70%		25%	10%	10%	2%
59	2%	70%		25%	10%	10%	2%
60	2%	70%		25%	25%	10%	2%
61	4%	70%		25%	25%	10%	2%
62	8%	70%		50%	25%	10%	2%
63	8%	70%		50%	25%	10%	2%
64	8%	70%		50%	25%	10%	2%
65		70%	25%	50%	50%	100%	10%
66		70%	25%	50%	50%	100%	10%
67		70%	25%	50%	50%	100%	10%
68		70%	25%	50%	50%	100%	10%
69		70%	25%	50%	50%	100%	10%
70		70%	25%	100%	50%	100%	20%
71		70%	25%	100%	50%	100%	20%
72		70%	25%	100%	50%	100%	20%
73		70%	25%	100%	50%	100%	20%
74		70%	25%	100%	50%	100%	20%
75		70%	50%	100%	100%	100%	100%
76		70%	50%				
77		70%	50%				
78		70%	50%				
79		70%	50%				
80+		100%	100%				

Actuarial Valuation Assumptions

Assumed Service

Credit:

All active members (full time and part time) are assumed to earn one full year of service for each assumed future year of service.

Marital Status:

It is assumed that 75 percent of participants in the Main System and Public Safety and 100 percent of Judges have an eligible spouse at the time of retirement or pre-retirement death. The male spouse is assumed to be three years older than the female spouse.

Spouses are assumed to be the opposite sex of the employees and retirees. The relatively low rate of same-sex spouses does not have a material actuarial impact on the actuarial valuation results.

Form of Payment

Election

Assumption:

	Main System and Public Safety		Judges
Form of Payment			
Life Annuity	50%		0%
50% Joint and Survivor	45%		100%
Refund of Member Contributions	5%		0%

Benefit Service:

Exact fractional years of service are used to determine the amount of benefit payable.

Decrement Timing:

All decrements are assumed to occur at the middle of the year.

Decrement Operation:

Turnover decrements do not operate after the member reaches retirement eligibility (early or normal).

Eligibility Testing:

Eligibility for benefits is determined based upon the age nearest birthday and service on the date the decrement is assumed to occur.

Pay Increase Timing:

Beginning of (fiscal) year.



Actuarial Valuation Assumptions

Expenses: Assumed administrative expenses were added to the Normal Cost and are based on the prior year's expenses, adjusted for inflation. The assumed amount added to the Normal Cost is:

Expenses	Main System	Judges	Public Safety		Total
			With Prior	Without Prior	
Assumed FY 2024	\$ 2,610,437	\$ 11,292	\$ 84,273	\$ 24,158	\$ 2,730,160
Actual FY 2024	2,814,595	29,261	118,662	23,264	2,985,782
Assumed FY 2025	2,877,923	29,919	121,332	23,788	3,052,962

Assumptions for Missing or Incomplete Data: Pay was annualized for active members who have an entry date after the last actuarial valuation date of July 1, 2023. Pay was annualized by dividing the provided pay by the maximum of one month and calculated service (based on entry date). A minimum pay amount of \$10,000 was assumed for all members. Active members in the Main System with \$0 pay provided were assumed to have pay of \$40,503, the average of non-zero annualized salary of newly hired members. Active members in the Judges System with \$0 pay provided were assumed to have pay of \$165,071, the average of non-zero annualized salary of newly hired members. Active members in the Public Safety with Prior Service System with \$0 pay provided were assumed to have pay of \$57,731, the average of non-zero annualized salary of newly hired members. Active members in the Public Safety Without Prior Service System with \$0 pay provided were assumed to have pay of \$48,797, the average of non-zero annualized salary of newly hired members.

Changes in Actuarial Valuation Assumptions and Methods since the Previous Actuarial Valuation

There have been no changes in actuarial assumptions since the previous actuarial valuation as of June 30, 2023.



SECTION F

BENEFIT PROVISIONS

Brief Summary of Plan Provisions

This Section summarizes the major benefit provisions of the North Dakota Public Employees Retirement System as included in the actuarial valuation. It is not intended to be, nor should it be, interpreted as a complete statement of all plan provisions.

Effective January 1, 2025, the Main System is closed to new members. Employees newly enrolled into the system on January 1, 2025 and later will participate in a new Defined Contribution Plan.

1. Normal Service Retirement:

➤ Eligibility:

Main System:

Attainment of age 65, or at any age with age plus service equal to at least 85 (Rule of 85).

For members enrolled after December 31, 2015, into the Main System, attainment of age 65, or at age 60 with age plus service equal to at least 90 (Rule of 90).

Judges:

Attainment of age 65, or at any age with age plus service equal to at least 85 (Rule of 85).

Public Safety:

Attainment of age 55 and three consecutive years of service (10 years for BCI members hired on or after August 1, 2023), or if not former National Guard, at any age with age plus service equal to at least 85 (Rule of 85). Former National Guard is eligible for Rule of 85 on August 1, 2015.

➤ Benefit:

Main System and Public Safety:

2.00% of final average salary multiplied by service (1.75% for members hired on or after January 1, 2020).

For BCI members who retire on or after August 1, 2023, 3.00% of final average salary for the first twenty years plus 1.75% of final average salary for additional years.

Judges:

3.50% of final average salary for each of the first ten years of service, 2.80% for each of the next 10 years of service and 1.25% for service in excess of 20 years.



Brief Summary of Plan Provisions

2. Early Retirement:

➤ Eligibility:

Main System:

Attainment of age 55 with three years of service.

Judges:

Attainment of age 55 with five years of service.

Public Safety:

Attainment of age 50 with three years of service (10 years for BCI members hired on or after August 1, 2023).

➤ Benefit:

Main System:

The Normal Service Retirement Benefit as determined in the preceding section. A benefit that begins before age 65 (or Rule of 85, if earlier) is reduced by one-half of one percent for each month before the earlier of age 65 or the age at which the Rule of 85 is met.

For members enrolled after December 31, 2015, into the Main System, a benefit that begins before age 65 (or Rule of 90 with minimum age of 60, if earlier) is reduced by 2/3% of one percent for each month before the earlier of age 65 or the age at which the Rule of 90 with minimum age of 60 is met.

Judges:

The Normal Service Retirement Benefit as determined in the preceding section. A benefit that begins before age 65 (or Rule of 85, if earlier) is reduced by one-half of one percent for each month before age 65 or the age at which the Rule of 85 is met.

Public Safety:

The Normal Service Retirement Benefit as determined in the preceding section. A benefit that begins before age 55 (or Rule of 85, if earlier) is reduced by one-half of one percent for each month before age 55 or the age at which the Rule of 85 is met.

Brief Summary of Plan Provisions

3. Disability Benefit:

➤ Eligibility:

Six months of service and inability to engage in any substantial gainful activity.

➤ Benefit:

Main System and Public Safety:

25% of the member's final average salary at disability minus workers' compensation benefits, with a minimum of \$100 per month.

Judges:

70% of the member's final average salary at disability minus Social Security and Workers' Compensation benefits paid.

4. Deferred Vested Retirement:

➤ Eligibility:

Main System and Public Safety:

Three years of service (10 years for BCI members hired on or after August 1, 2023).

Judges:

Five years of service.

➤ Benefit:

Main System and Judges:

The Normal Service Retirement Benefit payable at age 65 or the Rule of 85 (Rule of 90 minimum age of 60 for members first enrolled in the Main System after December 31, 2015), if earlier. Reduced early retirement benefits can be elected upon attainment of age 55.

Public Safety:

The Normal Service Retirement Benefit payable at age 55 or the Rule of 85, if earlier. Reduced early retirement benefit can be selected upon attainment of age 50.

Brief Summary of Plan Provisions

5. Pre-Retirement Death Benefits:

(a) Vested participants with a surviving spouse

➤ Eligibility:

Main System and Public Safety:

Three years of service (10 years for BCI members hired on or after August 1, 2023).

Judges:

Five years of service.

➤ Benefit:

Main System and Public Safety:

One of the following options:

- Lump sum payment of member's accumulated contributions with interest.
- 50% of the member's accrued benefit (not reduced on account of age) payable for the surviving spouse's lifetime.
- Continuation portion of 100% joint and survivor annuity (only if participant was eligible for normal retirement).

Judges:

One of the following options:

- Lump sum payment of member's accumulated contributions with interest.
- 100% of the member's accrued benefit (not reduced on account of age) payable for the spouse's lifetime.

(b) Non-vested members or vested members without a surviving spouse

➤ Eligibility:

Main System, Judges and Public Safety:

Non-vested or no surviving spouse.

Brief Summary of Plan Provisions

➤ Benefit:

Main System, Judges and Public Safety:

Lump sum payment of member's accumulated contributions with interest.

6. Refund of Member Contributions:

Paid to terminated non-vested members and terminated vested members who choose a refund of employee contributions in lieu of a monthly retirement benefit.

7. Accumulated Member Contributions:

Member contributions accumulate with interest at the following rates:

<u>Time Period</u>	<u>Per Annum Interest Rate</u>
Through June 30, 1981	5.0%
July 1, 1981 to June 30, 1986	6.0%
Effective June 30, 1986	7.50% (0.5% less than the actuarial interest rate assumption)
Effective January 1, 2018	7.25% (0.5% less than the actuarial interest rate assumption)
Effective January 1, 2020	7.00% (0.5% less than the actuarial interest rate assumption)
Effective January 1, 2021	6.50% (0.5% less than the actuarial interest rate assumption)
Effective January 1, 2023	6.00% (0.5% less than the actuarial interest rate assumption)

8. Standard and Optional Forms of Payment:

Standard form of payment:

Main System and Public Safety:

Monthly benefit for life with a refund to beneficiary at death of the remaining balance (if any) of accumulated member contributions.

Judges:

Monthly benefit for life, with 50% payable to an eligible survivor.

Optional forms of payment:

- Life annuity (for Judges).
- 50% joint and survivor annuity with pop-up (for Main System and Public Safety).



Brief Summary of Plan Provisions

- 100% joint and survivor annuity with pop-up.
- 20-year certain and life annuity.
- 10-year certain and life annuity.
- A partial lump sum payment in addition to one of the annuity options above.
- An actuarially equivalent graduated benefit option with either a one percent or two percent increase to be applied the first day of January of each year. Not available for disability or early retirements or in combination with a partial lump sum option, a deferred normal retirement option or a Social Security level income annuity.

9. Final Average Salary:

For members who terminate after December 31, 2019, final average salary is the higher of the final average salary calculated on December 31, 2019 or the average salary earned in the three highest periods of twelve consecutive months employed during the last 180 months of employment.

10. Contributions:

Contribution rates specified in the Century Code (except employer rate for Public Safety); differ between permanent employees and temporary employees. Rates are as follows:

Rates Set by Statute

	Member	Employer			
		Before 2024	2024-2025	2026 and Later	
				State	Political Subdivision
Main System Permanent Employees					
- Hired before 2020	7.00%	7.12%	8.12%	Actuarial*	8.12%
- Hired after 2019	7.00%	8.26%	9.26%	Actuarial*	9.26%
Main System Temporary Employees					
- Hired before 2020	14.12%	0.00%	0.00%	0.00%	0.00%
- Hired after 2019	15.26%	0.00%	0.00%	0.00%	0.00%
Judges	8.00%	17.52%	17.52%	17.52%	17.52%

* The 2026 and 2027 contribution will be based on the amount sufficient to fund the Main System on an actuarial basis from the July 1, 2024 valuation with the amortization of the unfunded liability determined on a level percent of payroll basis over a closed period beginning on January 1, 2026 and ending June 30, 2056.



Brief Summary of Plan Provisions

Rates Determined by the Board of Retirement

	Member	Employer	
		Before 2024	2024 and Later
Public Safety with prior Main System service	5.50%	9.81%	11.40%
- National Guard Members	5.50%	9.81%	11.40%

Public Safety without prior Main System service	5.50%	7.93%	9.16%
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	Member			Employer		
	Before 2024	2024	2025 and Later	Before 8/1/2023	8/1/2023 to 12/31/2023	2024 and Later
Public Safety with prior Main System service						
- BCI Employees	6.00%	7.00%	8.00%	9.81%	20.67%	22.26%
- State Public Safety Employees	6.00%	6.00%	6.00%	N/A	12.75%	14.34%

11. Portability Enhancement Provision:

Effective January 1, 2000, a member's account balance includes vested employer contributions equal to the member's contributions to the deferred compensation Plan under chapter 54-52.2. The vested employer contribution may not exceed:

1. For months one through 12 of service credit, \$25 or 1% of the member's monthly salary, whichever is greater.
2. For months 13 through 24 of service credit, \$25 or 2% of the member's monthly salary, whichever is greater.
3. For months 25 through 36 of service credit, \$25 or 3% of the member's monthly salary, whichever is greater.
4. For service exceeding 36 months, \$25 or 4% of the member's monthly salary, whichever is greater.

Vested employer contributions are credited monthly to the member's account balance.



Brief Summary of Plan Provisions

12. Rollovers:

The fund may accept rollovers from other qualified plans under rules adopted by the Board for the purchase of additional service credit.

13. Special Election to Transfer to DC Plan:

State employees participating in the Main System on January 1, 2025 who are at least age 18 with 5 years or less of participation will be eligible to irrevocably elect to transfer to the existing DC Plan during a three-month election period ending March 31, 2025. For members who elect to transfer to the existing DC Plan, NDPERS will transfer a lump sum from the Main System to the DC Plan based on the actuarial present value of the accrued benefit as of January 1, 2025, plus interest from January 1, 2025 to the date of transfer. The state employer of an employee who elects to transfer to the existing DC Plan shall contribute an additional amount of \$3,333 annually for up to three years, provided the employee continues employment.

Changes in Plan Provisions since the Previous Actuarial Valuation

There have been no plan provision changes since the previous valuation. However, it is important to note that the Main System will be closed to employees newly enrolled into the system on January 1, 2025 and later.

SECTION G

CALCULATION OF THE SINGLE DISCOUNT RATE

Calculation of the Single Discount Rate

GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the System to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The current employer and employee fixed rate contributions are assumed to be made in each future year. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed actuarial valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a municipal bond rate is required, as described in the following paragraph.

The Single Discount Rate (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) a tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this actuarial valuation, the expected rate of return on pension plan investments is 6.50%; the municipal bond rate is 3.97%; and the resulting Single Discount Rate is 6.50%.

The tables in this section provide detailed information on the development of the Single Discount Rate for the total PERS plan.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the Single Discount Rate (SDR). It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

Projection of Contributions by Plan

Main System				Judges			Public Safety with Prior Service			Public Safety without Prior Service			Total		
Year	Projected Contributions from Current Employees	Projected Contributions from Employer	Projected Total Contributions	Projected Contributions from Current Employees	Projected Contributions from Employer	Projected Total Contributions	Projected Contributions from Current Employees	Projected Contributions from Employer	Projected Total Contributions	Projected Contributions from Current Employees	Projected Contributions from Employer	Projected Total Contributions	Projected Contributions from Current Employees	Projected Contributions from Employer	Projected Total Contributions
2025	\$ 89,584,320	\$ 117,969,648	\$ 207,553,968	\$ 823,213	\$ 1,796,596	\$ 2,619,809	\$ 7,181,249	\$ 15,540,274	\$ 22,721,523	\$ 944,955	\$ 1,571,507	\$ 2,516,462	\$ 98,533,736	\$ 136,878,026	\$ 235,411,762
2026	85,387,361	165,780,289	251,167,650	668,510	2,017,473	2,685,983	6,799,082	16,627,052	23,426,134	884,279	1,726,082	2,610,361	93,739,232	186,150,896	279,890,128
2027	82,179,383	175,273,147	257,452,530	630,820	1,599,162	2,229,981	6,490,126	16,282,884	22,773,010	839,663	1,635,705	2,475,368	90,139,992	194,790,897	284,930,889
2028	79,503,881	172,038,093	251,541,974	605,866	1,512,331	2,118,198	6,242,978	16,334,543	22,577,521	806,877	1,611,874	2,418,750	87,159,602	191,496,841	278,656,444
2029	77,269,245	180,541,944	257,811,189	563,926	1,484,948	2,048,874	6,035,644	16,269,551	22,305,195	779,581	1,571,944	2,351,525	84,648,396	199,868,387	284,516,783
2030	75,372,463	172,618,700	247,991,163	532,125	1,394,631	1,926,757	5,862,053	16,285,320	22,147,373	755,412	1,543,534	2,298,946	82,522,053	191,842,186	274,364,239
2031	73,528,681	180,348,992	253,877,672	511,283	1,324,371	1,835,653	5,700,294	16,349,926	22,050,220	736,509	1,521,408	2,257,917	80,476,767	199,544,696	280,021,462
2032	71,633,733	173,408,907	245,042,639	511,399	1,266,895	1,778,294	5,528,647	16,433,630	21,962,276	717,948	1,508,535	2,226,483	78,391,727	192,617,966	271,009,692
2033	69,670,001	180,613,303	250,283,304	503,803	1,278,884	1,782,687	5,366,057	16,515,930	21,881,987	702,084	1,494,475	2,196,559	76,241,945	199,902,592	276,144,537
2034	67,640,088	173,079,851	240,719,939	477,670	1,283,743	1,761,413	5,207,276	16,619,493	21,826,768	687,461	1,485,345	2,172,806	74,012,495	192,468,431	266,480,926
2035	65,536,181	179,812,108	245,348,289	462,538	1,228,491	1,691,028	5,049,695	16,736,313	21,786,008	668,461	1,477,468	2,145,928	71,716,874	199,254,379	270,971,253
2036	63,323,694	173,025,656	236,349,350	452,544	1,198,049	1,650,593	4,890,425	16,853,711	21,744,136	648,723	1,462,388	2,111,111	69,315,387	192,539,805	261,855,191
2037	61,067,663	179,396,046	240,463,709	423,766	1,189,038	1,612,804	4,737,684	16,982,224	21,719,909	626,768	1,447,402	2,074,170	66,855,882	199,014,710	265,870,592
2038	58,749,774	177,386,151	236,135,926	415,034	1,115,695	1,530,729	4,576,877	17,117,840	21,694,717	603,901	1,428,020	2,031,921	64,345,587	197,047,706	261,393,293
2039	56,376,924	183,828,805	240,205,729	344,054	1,183,567	1,527,621	4,404,252	17,244,916	21,649,167	579,556	1,406,800	1,986,356	61,704,786	203,664,087	265,368,874
2040	53,917,668	182,167,566	236,085,233	322,742	998,139	1,320,881	4,225,320	17,364,752	21,590,072	553,015	1,384,895	1,937,910	59,018,744	201,915,352	260,934,097
2041	51,441,870	188,688,662	240,130,532	284,017	945,032	1,229,050	4,030,709	17,480,059	21,510,768	524,025	1,357,345	1,881,370	56,280,621	208,471,098	264,751,719
2042	48,927,097	187,545,231	236,472,327	247,609	861,018	1,108,627	3,824,865	17,569,814	21,394,679	491,564	1,326,067	1,817,631	53,491,134	207,302,130	260,793,264
2043	46,395,388	194,183,808	240,579,196	214,603	808,176	1,022,779	3,604,536	17,648,454	21,252,990	460,988	1,290,828	1,751,816	50,675,515	213,931,266	264,606,781
2044	43,832,143	193,620,788	237,452,931	163,509	591,196	754,705	3,360,905	17,705,220	21,066,125	430,632	1,254,715	1,685,347	47,787,190	213,171,919	260,959,109
2045	41,229,570	200,432,578	241,662,149	142,559	421,613	564,172	3,106,660	17,745,101	20,851,761	402,374	1,219,592	1,621,966	44,881,164	219,818,884	264,700,047
2046	38,610,905	200,443,541	239,054,446	116,968	546,366	663,334	2,865,314	17,774,000	20,639,313	370,839	1,186,749	1,557,588	41,964,026	219,950,656	261,914,682
2047	35,950,694	207,433,294	243,383,988	63,262	439,875	503,136	2,622,599	17,804,574	20,427,172	340,601	1,148,385	1,488,987	38,977,156	226,826,128	265,803,284
2048	33,265,331	208,036,933	241,302,264	58,334	246,901	305,235	2,357,770	17,813,893	20,171,662	312,244	1,113,314	1,425,558	35,993,679	227,211,040	263,204,719
2049	30,631,199	215,244,553	245,875,753	28,890	108,898	137,787	2,078,950	17,794,592	19,873,542	282,406	1,073,405	1,355,810	33,021,445	234,221,448	267,242,893
2050	28,051,450	216,644,128	244,695,579	26,629	-	26,629	1,818,719	17,776,123	19,594,841	252,547	1,028,549	1,281,095	30,149,344	235,448,800	265,598,144
2051	25,527,135	224,143,337	249,670,472	13,272	187,905	201,176	1,576,329	17,763,793	19,340,122	224,665	990,394	1,215,059	27,341,401	243,085,428	270,426,829
2052	23,078,789	226,353,700	249,432,489	-	147,727	147,727	1,347,983	17,752,090	19,100,073	195,876	947,620	1,143,497	24,622,648	245,201,137	269,823,785
2053	20,728,816	234,182,031	254,910,846	-	-	-	1,131,026	17,743,462	18,874,488	168,387	898,203	1,066,589	22,028,228	252,823,696	274,851,924
2054	18,503,001	237,179,209	255,682,209	-	-	-	932,917	17,752,353	18,685,270	140,548	852,186	992,734	19,576,465	255,783,748	275,360,213
2055	16,415,993	245,383,233	261,799,226	-	126,645	126,645	744,928	17,781,674	18,526,602	111,868	808,646	920,514	17,272,789	264,100,198	281,372,987
2056	14,440,332	248,101,027	262,541,360	-	149,368	149,368	570,785	17,843,556	18,414,341	86,840	762,416	849,256	15,097,958	266,856,366	281,954,324
2057	12,602,344	11,688,857	24,291,201	-	87,838	87,838	427,805	17,956,759	18,384,564	66,249	717,590	783,840	13,096,399	30,451,043	43,547,442
2058	10,927,837	10,300,080	21,227,917	-	102,968	102,968	314,809	18,140,799	18,455,608	48,883	681,114	729,996	11,291,529	29,224,960	40,516,490
2059	9,376,288	8,973,219	18,349,506	-	200,882	200,882	229,532	18,416,918	18,646,450	36,230	655,687	691,917	9,642,049	28,246,706	37,888,755
2060	7,954,979	7,714,549	15,669,528	-	151,617	151,617	166,000	18,786,977	18,952,977	26,095	641,802	667,897	8,147,074	27,294,945	35,442,020
2061	6,679,186	6,563,184	13,242,369	-	135,251	135,251	116,341	19,237,733	19,354,074	18,516	635,000	653,516	6,814,042	26,571,168	33,385,211
2062	5,549,684	5,525,485	11,075,169	-	96,565	96,565	79,169	19,758,586	19,837,755	12,284	634,790	647,074	5,641,137	26,015,427	31,656,564
2063	4,547,580	4,585,142	9,132,722	-	74,212	74,212	51,348	20,339,604	20,390,952	7,972	641,015	648,987	4,606,900	25,639,973	30,246,873
2064	3,681,041	3,755,225	7,436,266	-	145,197	145,197	32,125	20,974,568	21,006,694	4,893	652,738	657,631	3,718,060	25,527,728	29,245,787
2065	2,944,994	3,034,123	5,979,117	-	126,292	126,292	18,934	21,661,079	21,680,013	2,887	668,243	671,130	2,966,815	25,489,737	28,456,552
2066	2,320,716	2,412,692	4,733,408	-	88,155	88,155	10,636	22,395,927	22,406,563	1,706	688,197	689,904	2,333,059	25,584,971	27,918,030
2067	1,808,443	1,896,486	3,704,929	-	123,475	123,475	5,756	23,176,736	23,182,492	915	712,012	712,927	1,815,115	25,908,709	27,723,824
2068	1,398,929	1,479,016	2,877,945	-	89,646	89,646	2,983	23,999,418	24,002,402	463	738,892	739,355	1,402,375	26,306,972	27,709,347
2069	1,070,687	1,140,515	2,211,202	-	113,304	113,304	1,480	24,861,768	24,863,248	232	768,371	768,604	1,072,400	26,883,959	27,956,358
2070	813,019	871,257	1,684,276	-	201,382	201,382	717	25,762,418	25,763,135	108	800,024	800,131	813,844	27,635,081	28,448,924
2071	611,652	660,647	1,272,299	-	210,117	210,117	326	26,699,926	26,700,252	51	833,871	833,922	612,029	28,404,562	29,016,591
2072	459,808	501,218	961,025	-	194,927	194,927	143	27,674,890	27,675,033	21	869,593	869,614	459,972	29,240,628	29,700,599
2073	343,049	378,290	721,339	-	208,394	208,394	53	28,689,007	28,689,061	9	907,126	907,134	343,110	30,182,818	30,525,928
2074	252,262	281,513	533,775	-	294,916	294,916	18	29,743,887	29,743,905	4	947,049	947,053	252,283	31,267,366	31,519,650
2075	180,801	204,137	384,939	-	369,606	369,606	5	30,840,729	30,840,734	1	989,459	989,459	180,807	32,403,931	32,584,738
2076	126,271	144,594	270,865	-	400,029	400,029	1	31,982,355	31,982,355	-	1,034,176	1,034,176	126,272	33,561,153	33,687,425
2077	85,518	99,407	184,925	-	383,455	383,455	-	33,171,529	33,171,529	-	1,081,295	1,081,295	85,518	34,735,686	34,821,204
2078	55,825	65,845	121,670	-	452,052	452,052	-	34,409,749	34,409,749	-	1,130,949	1,130,949	55,825	36,058,595	36,114,420
2079	34,658	41,312	75,971	-	535,391	535,391	-	35,698,615	35,698,615	-	1,183,185	1,183,185	34,658	37,458,504	37,493,162
2080	20,051	24,133	44,185	-	571,947	571,947	-	37,040,243	37,040,243	-	1,238,124	1,238,124	20,051	38,874,448	38,894,499
2081	10,321	12,512	22,833</												

Projection of Benefit Payments and Administrative Expenses by Plan

Year	Main System		Judges		Public Safety with Prior Service		Public Safety without Prior Service		Total	
	Projected Benefit Payments	Projected Administrative Expenses	Projected Benefit Payments	Projected Administrative Expenses	Projected Benefit Payments	Projected Administrative Expenses	Projected Benefit Payments	Projected Administrative Expenses	Projected Benefit Payments	Projected Administrative Expenses
2025	\$ 286,836,579	\$ 2,477,919	\$ 4,440,596	\$ 23,680	\$ 5,403,788	\$ 111,652	\$ 541,660	\$ 21,516	\$ 297,222,623	\$ 2,634,767
2026	303,619,745	2,387,938	4,964,956	22,201	6,500,335	105,520	631,493	20,100	315,716,529	2,535,759
2027	316,449,881	2,311,474	5,054,624	21,199	7,508,317	100,084	702,487	18,931	329,715,308	2,451,688
2028	331,490,211	2,247,189	5,178,965	19,597	8,779,345	95,135	816,336	17,893	346,264,857	2,379,815
2029	346,603,107	2,192,671	5,303,696	18,361	10,090,287	90,800	950,875	16,979	362,947,965	2,318,811
2030	362,185,865	2,139,625	5,365,379	17,519	11,435,359	86,778	1,085,519	16,196	380,072,122	2,260,118
2031	378,367,488	2,085,046	5,337,286	17,402	12,962,709	82,800	1,223,256	15,453	397,890,739	2,200,701
2032	394,918,740	2,028,410	5,258,722	17,031	14,586,555	79,051	1,360,158	14,789	416,124,175	2,139,282
2033	411,873,258	1,969,771	5,267,632	16,054	16,251,899	75,464	1,516,796	14,180	434,909,584	2,075,468
2034	429,359,183	1,908,934	5,306,487	15,436	18,044,884	72,013	1,700,750	13,530	454,411,304	2,009,913
2035	447,464,984	1,844,914	5,293,338	14,993	19,991,713	68,656	1,901,076	12,896	474,651,110	1,941,460
2036	465,767,915	1,779,578	5,319,234	13,939	22,054,891	65,478	2,124,077	12,253	495,266,116	1,871,248
2037	484,180,580	1,712,415	5,330,234	13,555	24,219,521	62,319	2,368,085	11,616	516,098,419	1,799,905
2038	502,734,311	1,643,614	5,484,644	11,157	26,478,835	59,123	2,620,012	10,980	537,317,802	1,724,873
2039	521,378,724	1,572,256	5,684,320	10,391	28,838,191	55,938	2,895,192	10,325	558,796,427	1,648,910
2040	531,778,172	1,500,429	5,771,526	9,086	31,188,089	52,661	3,150,407	9,650	571,888,193	1,571,825
2041	549,965,810	1,427,436	5,903,295	7,864	33,926,193	49,338	3,501,930	8,936	593,297,229	1,493,574
2042	567,891,794	1,353,887	6,017,036	6,768	36,798,650	45,936	3,875,030	8,268	614,582,511	1,414,859
2043	585,379,711	1,279,380	6,186,929	5,119	39,970,325	42,354	4,234,538	7,624	635,771,503	1,334,477
2044	602,269,809	1,203,672	6,300,541	4,431	43,234,176	38,716	4,576,385	7,030	656,380,911	1,253,848
2045	618,873,243	1,127,489	6,310,415	3,609	46,391,484	35,292	4,936,909	6,401	676,512,051	1,172,791
2046	635,262,620	1,050,028	6,452,653	1,938	49,434,267	31,927	5,283,948	5,808	696,433,488	1,089,700
2047	651,095,821	971,779	6,507,271	1,774	52,439,286	28,391	5,634,306	5,257	715,676,684	1,007,201
2048	665,804,036	895,010	6,461,457	872	55,616,801	24,774	5,998,271	4,697	733,880,565	925,353
2049	679,016,379	819,798	6,401,669	798	58,687,542	21,432	6,373,215	4,151	750,478,805	846,180
2050	691,290,557	746,190	6,269,276	395	61,461,773	18,361	6,729,990	3,648	765,751,597	768,594
2051	702,641,872	674,747	6,182,814	-	63,911,407	15,517	7,050,171	3,143	779,786,264	693,407
2052	712,424,096	606,146	6,037,769	-	66,049,856	12,867	7,342,766	2,670	791,854,486	621,684
2053	721,208,144	541,160	5,837,292	-	67,856,692	10,487	7,595,987	2,203	802,498,116	553,850
2054	728,709,175	480,245	5,638,427	-	69,309,196	8,276	7,837,576	1,734	811,494,374	490,255
2055	734,510,632	422,525	5,440,966	-	70,460,772	6,268	8,046,545	1,331	818,458,914	430,124
2056	738,500,401	368,825	5,244,680	-	71,227,824	4,642	8,190,018	1,003	823,162,922	374,470
2057	740,682,336	319,883	5,049,298	-	71,588,829	3,375	8,284,422	732	825,604,885	323,989
2058	740,940,858	274,538	4,854,518	-	71,582,455	2,431	8,327,040	536	825,704,871	277,504
2059	738,884,955	232,982	4,660,013	-	71,271,181	1,736	8,329,657	381	823,145,805	235,100
2060	734,699,903	195,667	4,465,412	-	70,722,343	1,202	8,296,514	267	818,184,172	197,136
2061	727,931,106	162,616	4,270,321	-	69,967,079	808	8,236,419	175	810,404,926	163,599
2062	718,751,362	133,277	4,074,394	-	69,032,580	518	8,148,380	112	800,006,716	133,907
2063	707,305,498	107,908	3,877,368	-	67,932,910	320	8,036,071	68	787,151,847	108,296
2064	693,742,915	86,359	3,679,102	-	66,694,209	186	7,903,199	40	772,019,424	86,585
2065	678,230,033	68,068	3,479,571	-	65,331,733	103	7,751,571	23	754,792,908	68,195
2066	660,681,909	53,049	3,278,885	-	63,861,422	55	7,585,942	12	735,408,157	53,117
2067	641,231,268	41,041	3,077,313	-	62,298,767	28	7,408,241	6	714,015,589	41,075
2068	620,475,835	31,416	2,875,321	-	60,654,934	14	7,219,754	3	691,225,844	31,433
2069	598,685,572	23,860	2,673,542	-	58,937,636	7	7,021,920	1	667,318,670	23,868
2070	576,046,113	17,953	2,472,731	-	57,152,463	3	6,815,586	1	642,486,893	17,957
2071	552,656,071	13,499	2,273,800	-	55,303,307	1	6,601,471	0	616,834,649	13,500
2072	528,693,992	10,072	2,077,817	-	53,393,446	0	6,380,168	0	590,545,423	10,072
2073	504,306,912	7,407	1,885,994	-	51,425,985	0	6,152,256	0	563,771,147	7,407
2074	479,628,128	5,309	1,699,586	-	49,404,834	0	5,918,367	0	536,650,916	5,309
2075	454,757,995	3,708	1,519,802	-	47,334,560	0	5,679,102	-	509,291,459	3,708
2076	429,792,527	2,511	1,347,877	-	45,220,497	-	5,435,138	-	481,796,039	2,511
2077	404,838,475	1,639	1,184,963	-	43,068,646	-	5,187,215	-	454,279,300	1,639
2078	380,000,949	1,017	1,032,060	-	40,885,631	-	4,936,158	-	426,854,798	1,017
2079	355,384,864	589	890,002	-	38,678,983	-	4,682,820	-	399,636,669	589
2080	331,094,390	303	759,376	-	36,456,921	-	4,428,082	-	372,738,768	303
2081	307,225,465	144	640,582	-	34,228,240	-	4,172,904	-	346,267,191	144
2082	283,880,449	65	533,815	-	32,002,368	-	3,918,274	-	320,334,906	65



Projection of Contributions

Year	Projected Contributions from Current Employees	Projected Service Cost and Expense Contributions	Projected UAL Contributions	Projected Total Contributions
2025	\$ 98,533,736	\$ 89,975,315	\$ 46,902,711	\$ 235,411,762
2026	93,739,232	90,200,574	95,950,322	279,890,128
2027	90,139,992	86,509,821	108,281,076	284,930,889
2028	87,159,602	83,474,068	108,022,773	278,656,444
2029	84,648,396	80,873,806	118,994,581	284,516,783
2030	82,522,053	78,645,569	113,196,617	274,364,239
2031	80,476,767	76,543,952	123,000,744	280,021,462
2032	78,391,727	74,413,417	118,204,549	271,009,692
2033	76,241,945	72,201,019	127,701,574	276,144,537
2034	74,012,495	69,884,595	122,583,835	266,480,926
2035	71,716,874	67,507,870	131,746,509	270,971,253
2036	69,315,387	65,028,776	127,511,028	261,855,191
2037	66,855,882	62,469,375	136,545,335	265,870,592
2038	64,345,587	59,880,461	137,167,245	261,393,293
2039	61,704,786	57,092,976	146,571,111	265,368,874
2040	59,018,744	54,348,565	147,566,787	260,934,097
2041	56,280,621	51,538,394	156,932,704	264,751,719
2042	53,491,134	48,692,473	158,609,657	260,793,264
2043	50,675,515	45,849,365	168,081,901	264,606,781
2044	47,787,190	42,928,945	170,242,975	260,959,109
2045	44,881,164	40,053,135	179,765,748	264,700,047
2046	41,964,026	37,185,321	182,765,335	261,914,682
2047	38,977,156	34,282,217	192,543,911	265,803,284
2048	35,993,679	31,449,000	195,762,040	263,204,719
2049	33,021,445	28,608,402	205,613,045	267,242,893
2050	30,149,344	25,871,983	209,576,818	265,598,144
2051	27,341,401	23,209,307	219,876,121	270,426,829
2052	24,622,648	20,640,373	224,560,765	269,823,785
2053	22,028,228	18,221,501	234,602,194	274,851,924
2054	19,576,465	15,968,650	239,815,098	275,360,213
2055	17,272,789	13,883,255	250,216,943	281,372,987
2056	15,097,958	11,950,028	254,906,338	281,954,324
2057	13,096,399	10,210,764	20,240,280	43,547,442
2058	11,291,529	8,665,331	20,559,629	40,516,490
2059	9,642,049	7,278,992	20,967,714	37,888,755
2060	8,147,074	6,045,888	21,249,057	35,442,020
2061	6,814,042	4,965,009	21,606,160	33,385,211
2062	5,641,137	4,032,887	21,982,541	31,656,564
2063	4,606,900	3,231,718	22,408,255	30,246,873
2064	3,718,060	2,559,059	22,968,669	29,245,787
2065	2,966,815	2,004,988	23,484,749	28,456,552
2066	2,333,059	1,550,832	24,034,139	27,918,030
2067	1,815,115	1,190,393	24,718,316	27,723,824
2068	1,402,375	909,621	25,397,351	27,709,347
2069	1,072,400	689,281	26,194,678	27,956,358
2070	813,844	517,875	27,117,206	28,448,924
2071	612,029	385,032	28,019,529	29,016,591
2072	459,972	285,160	28,955,467	29,700,599
2073	343,110	207,704	29,975,114	30,525,928
2074	252,283	148,074	31,119,292	31,519,650
2075	180,807	102,139	32,301,792	32,584,738
2076	126,272	68,803	33,492,350	33,687,425
2077	85,518	44,071	34,691,615	34,821,204
2078	55,825	27,210	36,031,385	36,114,420
2079	34,658	16,053	37,442,451	37,493,162
2080	20,051	8,680	38,865,768	38,894,499
2081	10,321	4,262	40,293,159	40,307,742
2082	4,902	1,903	41,824,878	41,831,683
2083	2,226	822	43,503,674	43,506,722



Projection of Plan Fiduciary Net Position

Year	Projected Beginning Plan Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 6.500%	Additional Cash Infusion/(Asset Transfer)	Projected Ending Plan Fiduciary Net Position
	(a)	(b)	(c)	(d)	(e)	(f)	(g)=(a)+(b)-(c)-(d)+(e)+(f)
2025	\$ 4,265,287,349	\$ 235,411,762	\$ 297,222,623	\$ 2,634,767	\$ 275,182,167	\$ 41,376,884	\$ 4,517,400,772
2026	4,517,400,772	279,890,128	315,716,529	2,535,759	292,403,907	0	4,771,442,519
2027	4,771,442,519	284,930,889	329,715,308	2,451,688	308,632,758	0	5,032,839,170
2028	5,032,839,170	278,656,444	346,264,857	2,379,815	324,895,737	0	5,287,746,678
2029	5,287,746,678	284,516,783	362,947,965	2,318,811	341,120,473	0	5,548,117,158
2030	5,548,117,158	274,364,239	380,072,122	2,260,118	357,173,895	0	5,797,323,051
2031	5,797,323,051	280,021,462	397,890,739	2,200,701	372,985,155	0	6,050,238,229
2032	6,050,238,229	271,009,692	416,124,175	2,139,282	388,555,077	0	6,291,539,541
2033	6,291,539,541	276,144,537	434,909,584	2,075,468	403,805,044	0	6,534,504,069
2034	6,534,504,069	266,480,926	454,411,304	2,009,913	418,666,884	0	6,763,230,661
2035	6,763,230,661	270,971,253	474,651,110	1,941,460	433,032,502	0	6,990,641,846
2036	6,990,641,846	261,855,191	495,266,116	1,871,248	446,865,426	0	7,202,225,099
2037	7,202,225,099	265,870,592	516,098,419	1,799,905	460,082,675	0	7,410,280,042
2038	7,410,280,042	261,393,293	537,317,802	1,724,873	472,786,651	0	7,605,417,311
2039	7,605,417,311	265,368,874	558,796,427	1,648,910	484,913,110	0	7,795,253,957
2040	7,795,253,957	260,934,097	571,888,193	1,571,825	496,694,312	0	7,979,422,347
2041	7,979,422,347	264,751,719	593,297,229	1,493,574	508,105,040	0	8,157,488,303
2042	8,157,488,303	260,793,264	614,582,511	1,414,859	518,874,339	0	8,321,158,536
2043	8,321,158,536	264,606,781	635,771,503	1,334,477	528,959,662	0	8,477,618,998
2044	8,477,618,998	260,959,109	656,380,911	1,253,848	538,356,227	0	8,619,299,576
2045	8,619,299,576	264,700,047	676,512,051	1,172,791	547,043,761	0	8,753,358,543
2046	8,753,358,543	261,914,682	696,433,488	1,089,700	555,033,898	0	8,872,783,935
2047	8,872,783,935	265,803,284	715,676,684	1,007,201	562,308,019	0	8,984,211,353
2048	8,984,211,353	263,204,719	733,880,565	925,353	568,887,983	0	9,081,498,137
2049	9,081,498,137	267,242,893	750,478,805	846,180	574,812,381	0	9,172,228,426
2050	9,172,228,426	265,598,144	765,751,597	768,594	580,171,167	0	9,251,477,546
2051	9,251,477,546	270,426,829	779,786,264	693,407	585,030,280	0	9,326,454,984
2052	9,326,454,984	269,823,785	791,854,486	621,684	589,500,775	0	9,393,303,374
2053	9,393,303,374	274,851,924	802,498,116	553,850	593,668,460	0	9,458,771,792
2054	9,458,771,792	275,360,213	811,494,374	490,255	597,654,425	0	9,519,801,801
2055	9,519,801,801	281,372,987	818,458,914	430,124	601,592,854	0	9,583,878,604
2056	9,583,878,604	281,954,324	823,162,922	374,470	605,627,749	0	9,647,923,285
2057	9,647,923,285	43,547,442	825,604,885	323,989	602,087,905	0	9,467,629,759
2058	9,467,629,759	40,516,490	825,704,871	277,504	590,270,159	0	9,272,434,033
2059	9,272,434,033	37,888,755	823,145,805	235,100	577,581,597	0	9,064,523,480
2060	9,064,523,480	35,442,020	818,184,172	197,136	564,149,073	0	8,845,733,264
2061	8,845,733,264	33,385,211	810,404,926	163,599	550,111,833	0	8,618,661,783
2062	8,618,661,783	31,656,564	800,006,716	133,907	535,630,462	0	8,385,808,185
2063	8,385,808,185	30,246,873	787,151,847	108,296	520,861,910	0	8,149,656,825
2064	8,149,656,825	29,245,787	772,019,424	86,585	505,964,804	0	7,912,761,408
2065	7,912,761,408	28,456,552	754,792,908	68,195	491,092,993	0	7,677,449,850
2066	7,677,449,850	27,918,030	735,408,157	53,117	476,401,084	0	7,446,307,690
2067	7,446,307,690	27,723,824	714,015,589	41,075	462,055,330	0	7,222,030,178
2068	7,222,030,178	27,709,347	691,225,844	31,433	448,206,144	0	7,006,688,393
2069	7,006,688,393	27,956,358	667,318,670	23,868	434,981,823	0	6,802,284,036
2070	6,802,284,036	28,448,924	642,486,893	17,957	422,505,813	0	6,610,733,923
2071	6,610,733,923	29,016,591	616,834,649	13,500	410,893,930	0	6,433,796,295
2072	6,433,796,295	29,700,599	590,545,423	10,072	400,255,924	0	6,273,197,323
2073	6,273,197,323	30,525,928	563,771,147	7,407	390,699,943	0	6,130,644,640
2074	6,130,644,640	31,519,650	536,650,916	5,309	382,333,405	0	6,007,841,469



Projection of Plan Fiduciary Net Position

Year	Projected Beginning Plan Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 6.500%	Additional Cash Infusion/(Asset Transfer)	Projected Ending Plan Fiduciary Net Position
	(a)	(b)	(c)	(d)	(e)	(f)	(g)=(a)+(b)-(c)-(d)+(e)+(f)
2075	6,007,841,469	32,584,738	509,291,459	3,708	375,260,505	0	5,906,391,545
2076	5,906,391,545	33,687,425	481,796,039	2,511	369,581,105	0	5,827,861,525
2077	5,827,861,525	34,821,204	454,279,300	1,639	365,393,165	0	5,773,794,955
2078	5,773,794,955	36,114,420	426,854,798	1,017	362,797,491	0	5,745,851,050
2079	5,745,851,050	37,493,162	399,636,669	589	361,895,918	0	5,745,602,873
2080	5,745,602,873	38,894,499	372,738,768	303	362,785,042	0	5,774,543,343
2081	5,774,543,343	40,307,742	346,267,191	144	365,558,168	0	5,834,141,918
2082	5,834,141,918	41,831,683	320,334,906	65	370,310,358	0	5,925,948,988
2083	5,925,948,988	43,506,722	295,055,318	27	377,140,053	0	6,051,540,419
2084	6,051,540,419	45,130,733	270,533,133	9	386,139,871	0	6,212,277,880
2085	6,212,277,880	46,816,668	246,866,007	1	397,398,809	0	6,409,627,349
2086	6,409,627,349	48,619,044	224,142,928	0	411,011,054	0	6,645,114,519
2087	6,645,114,519	50,476,526	202,443,205	0	427,071,277	0	6,920,219,117
2088	6,920,219,117	52,415,105	181,835,786	0	445,674,286	0	7,236,472,721
2089	7,236,472,721	54,426,810	162,378,475	0	466,917,529	0	7,595,438,586
2090	7,595,438,586	56,473,910	144,116,965	0	490,899,949	0	7,998,695,480
2091	7,998,695,480	58,626,774	127,084,793	0	517,725,346	0	8,447,962,807
2092	8,447,962,807	60,866,333	111,302,904	0	547,504,199	0	8,945,030,434
2093	8,945,030,434	63,189,425	96,779,832	0	580,352,476	0	9,491,792,503
2094	9,491,792,503	65,607,511	83,511,493	0	616,393,793	0	10,090,282,314
2095	10,090,282,314	68,086,977	71,480,911	0	655,759,784	0	10,742,648,165
2096	10,742,648,165	70,617,062	60,658,567	0	698,590,687	0	11,451,197,347
2097	11,451,197,347	73,277,154	51,004,332	0	745,040,299	0	12,218,510,468
2098	12,218,510,468	76,062,091	42,468,995	0	795,277,769	0	13,047,381,334
2099	13,047,381,334	78,894,398	34,994,443	0	849,484,075	0	13,940,765,363
2100	13,940,765,363	81,785,646	28,514,730	0	907,853,798	0	14,901,890,077
2101	14,901,890,077	84,776,081	22,958,007	0	970,600,315	0	15,934,308,466
2102	15,934,308,466	87,925,331	18,248,284	0	1,037,958,906	0	17,041,944,419
2103	17,041,944,419	91,129,821	14,306,790	0	1,110,183,831	0	18,228,951,280
2104	18,228,951,280	94,414,250	11,053,085	0	1,187,548,421	0	19,499,860,867
2105	19,499,860,867	97,799,846	8,406,450	0	1,270,350,506	0	20,859,604,767
2106	20,859,604,767	101,306,105	6,287,485	0	1,358,913,801	0	22,313,537,188
2107	22,313,537,188	104,958,480	4,619,524	0	1,453,589,597	0	23,867,465,741
2108	23,867,465,741	108,680,314	3,330,199	0	1,554,755,252	0	25,527,571,107
2109	25,527,571,107	112,500,297	2,352,789	0	1,662,815,561	0	27,300,534,176
2110	27,300,534,176	116,487,334	1,627,081	0	1,778,208,914	0	29,193,603,344
2111	29,193,603,344	120,620,182	1,100,019	0	1,901,407,473	0	31,214,530,980
2112	31,214,530,980	124,862,109	726,115	0	2,032,915,422	0	33,371,582,395
2113	33,371,582,395	129,258,716	467,369	0	2,173,272,681	0	35,673,646,424
2114	35,673,646,424	133,802,353	292,975	0	2,323,057,765	0	38,130,213,567
2115	38,130,213,567	138,498,756	178,669	0	2,482,888,516	0	40,751,422,170
2116	40,751,422,170	143,377,707	105,918	0	2,653,425,472	0	43,548,119,430
2117	43,548,119,430	148,434,502	61,012	0	2,835,373,989	0	46,531,866,909
2118	46,531,866,909	153,649,521	34,131	0	3,029,485,255	0	49,714,967,554
2119	49,714,967,554	159,041,270	18,534	0	3,236,559,769	0	53,110,550,059
2120	53,110,550,059	164,617,406	9,758	0	3,457,451,284	0	56,732,608,991
2121	56,732,608,991	170,416,988	4,975	0	3,693,070,787	0	60,596,091,792
2122	60,596,091,792	176,417,201	2,448	0	3,944,389,187	0	64,716,895,731
2123	64,716,895,731	182,602,355	1,153	0	4,212,439,338	0	69,111,936,271



Discount Rate Development

Present Values of Projected Benefits Ending June 30 for 2025 to 2074

						Present Value of Funded Benefit Payments Using Expected Return Rate of 6.50%	Present Value of Unfunded Benefit Payments Using Municipal Bond Rate of 3.97%	Present Value of All Benefit Payments Using Single Discount Rate (SDR) of 6.50%
	Projected Beginning Plan Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments		(f)=(d)*v^n*((a)-.5)	(g)=(e)*vf ^n*((a)-.5)	(h)=(c)/(1+SDR)^n((a)-.5)
Year	(b)	(c)	(d)	(e)		(v)	(vf)	(SDR) of 6.50%
(a)	(b)	(c)	(d)	(e)		(f)=(d)*v^n*((a)-.5)	(g)=(e)*vf ^n*((a)-.5)	(h)=(c)/(1+SDR)^n((a)-.5)
2025	\$ 4,265,287,349	\$ 297,222,623	\$ 297,222,623	\$ 0	\$	288,009,663	\$ 0	\$ 288,009,663
2026	4,517,400,772	315,716,529	315,716,529	0		287,258,513	0	287,258,513
2027	4,771,442,519	329,715,308	329,715,308	0		281,685,889	0	281,685,889
2028	5,032,839,170	346,264,857	346,264,857	0		277,769,649	0	277,769,649
2029	5,287,746,678	362,947,965	362,947,965	0		273,382,764	0	273,382,764
2030	5,548,117,158	380,072,122	380,072,122	0		268,808,609	0	268,808,609
2031	5,797,323,051	397,890,739	397,890,739	0		264,235,631	0	264,235,631
2032	6,050,238,229	416,124,175	416,124,175	0		259,478,207	0	259,478,207
2033	6,291,539,541	434,909,584	434,909,584	0		254,640,403	0	254,640,403
2034	6,534,504,069	454,411,304	454,411,304	0		249,820,373	0	249,820,373
2035	6,763,230,661	474,651,110	474,651,110	0		245,021,176	0	245,021,176
2036	6,990,641,846	495,266,116	495,266,116	0		240,059,075	0	240,059,075
2037	7,202,225,099	516,098,419	516,098,419	0		234,888,866	0	234,888,866
2038	7,410,280,042	537,317,802	537,317,802	0		229,620,958	0	229,620,958
2039	7,605,417,311	558,796,427	558,796,427	0		224,225,142	0	224,225,142
2040	7,795,253,957	571,888,193	571,888,193	0		215,472,678	0	215,472,678
2041	7,979,422,347	593,297,229	593,297,229	0		209,895,821	0	209,895,821
2042	8,157,488,303	614,582,511	614,582,511	0		204,155,959	0	204,155,959
2043	8,321,158,536	635,771,503	635,771,503	0		198,304,840	0	198,304,840
2044	8,477,618,998	656,380,911	656,380,911	0		192,237,713	0	192,237,713
2045	8,619,299,576	676,512,051	676,512,051	0		186,040,963	0	186,040,963
2046	8,753,358,543	696,433,488	696,433,488	0		179,830,387	0	179,830,387
2047	8,872,783,935	715,676,684	715,676,684	0		173,520,461	0	173,520,461
2048	8,984,211,353	733,880,565	733,880,565	0		167,074,282	0	167,074,282
2049	9,081,498,137	750,478,805	750,478,805	0		160,425,367	0	160,425,367
2050	9,172,228,426	765,751,597	765,751,597	0		153,699,662	0	153,699,662
2051	9,251,477,546	779,786,264	779,786,264	0		146,964,004	0	146,964,004
2052	9,326,454,984	791,854,486	791,854,486	0		140,130,015	0	140,130,015
2053	9,393,303,374	802,498,116	802,498,116	0		133,346,064	0	133,346,064
2054	9,458,771,792	811,494,374	811,494,374	0		126,611,188	0	126,611,188
2055	9,519,801,801	818,458,914	818,458,914	0		119,904,048	0	119,904,048
2056	9,583,878,604	823,162,922	823,162,922	0		113,233,037	0	113,233,037
2057	9,647,923,285	825,604,885	825,604,885	0		106,637,511	0	106,637,511
2058	9,467,629,759	825,704,871	825,704,871	0		100,141,245	0	100,141,245
2059	9,272,434,033	823,145,805	823,145,805	0		93,737,918	0	93,737,918
2060	9,064,523,480	818,184,172	818,184,172	0		87,486,290	0	87,486,290
2061	8,845,733,264	810,404,926	810,404,926	0		81,365,704	0	81,365,704
2062	8,618,661,783	800,006,716	800,006,716	0		75,419,447	0	75,419,447
2063	8,385,808,185	787,151,847	787,151,847	0		69,678,472	0	69,678,472
2064	8,149,656,825	772,019,424	772,019,424	0		64,168,032	0	64,168,032
2065	7,912,761,408	754,792,908	754,792,908	0		58,907,243	0	58,907,243
2066	7,677,449,850	735,408,157	735,408,157	0		53,891,432	0	53,891,432
2067	7,446,307,690	714,015,589	714,015,589	0		49,130,294	0	49,130,294
2068	7,222,030,178	691,225,844	691,225,844	0		44,659,312	0	44,659,312
2069	7,006,688,393	667,318,670	667,318,670	0		40,483,283	0	40,483,283
2070	6,802,284,036	642,486,893	642,486,893	0		36,597,980	0	36,597,980
2071	6,610,733,923	616,834,649	616,834,649	0		32,992,255	0	32,992,255
2072	6,433,796,295	590,545,423	590,545,423	0		29,658,347	0	29,658,347
2073	6,273,197,323	563,771,147	563,771,147	0		26,585,625	0	26,585,625
2074	6,130,644,640	536,650,916	536,650,916	0		23,762,180	0	23,762,180



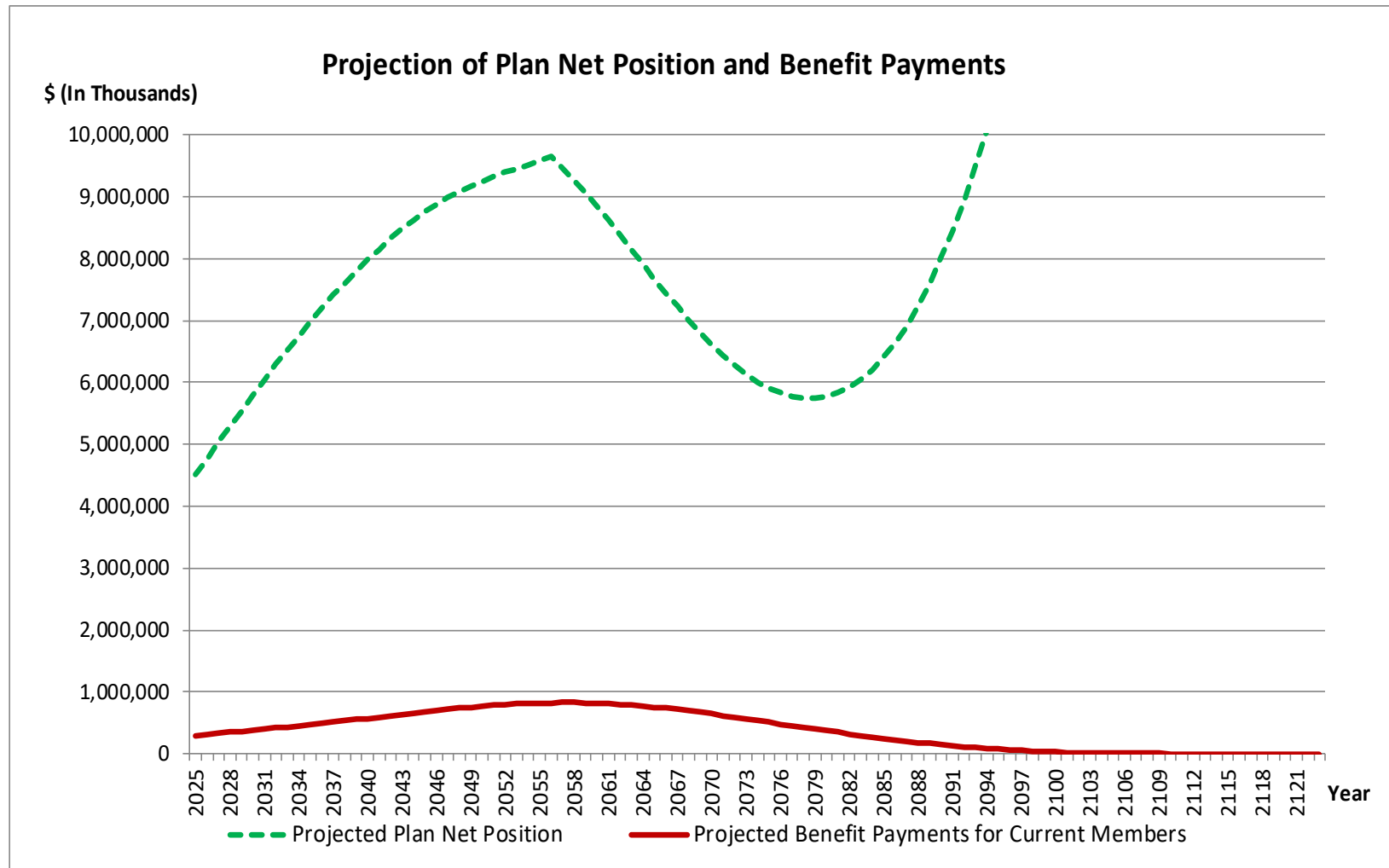
Discount Rate Development

Present Values of Projected Benefits Ending June 30 for 2075 to 2123

Year	Projected Beginning Plan Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate of 6.50% (v)	Present Value of Unfunded Benefit Payments Using Municipal Bond Rate of 3.97% (vf)	Present Value of All Benefit Payments Using Single Discount Rate (SDR) of 6.50% (h)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^(a)-.5)	(g)=(e)*vf^(a)-.5)	(h)=[(c)/((1+SDR)^(a)-.5)]
2075	\$ 6,007,841,469	\$ 509,291,459	\$ 509,291,459	\$ 0	\$ 21,174,404	\$ 0	\$ 21,174,404
2076	5,906,391,545	481,796,039	481,796,039	0	18,808,685	0	18,808,685
2077	5,827,861,525	454,279,300	454,279,300	0	16,652,082	0	16,652,082
2078	5,773,794,955	426,854,798	426,854,798	0	14,691,839	0	14,691,839
2079	5,745,851,050	399,636,669	399,636,669	0	12,915,514	0	12,915,514
2080	5,745,602,873	372,738,768	372,738,768	0	11,311,009	0	11,311,009
2081	5,774,543,343	346,267,191	346,267,191	0	9,866,395	0	9,866,395
2082	5,834,141,918	320,334,906	320,334,906	0	8,570,414	0	8,570,414
2083	5,925,948,988	295,055,318	295,055,318	0	7,412,273	0	7,412,273
2084	6,051,540,419	270,533,133	270,533,133	0	6,381,442	0	6,381,442
2085	6,212,277,880	246,866,007	246,866,007	0	5,467,767	0	5,467,767
2086	6,409,627,349	224,142,928	224,142,928	0	4,661,484	0	4,661,484
2087	6,645,114,519	202,443,205	202,443,205	0	3,953,236	0	3,953,236
2088	6,920,219,117	181,835,786	181,835,786	0	3,334,105	0	3,334,105
2089	7,236,472,721	162,378,475	162,378,475	0	2,795,624	0	2,795,624
2090	7,595,438,586	144,116,965	144,116,965	0	2,329,785	0	2,329,785
2091	7,998,695,480	127,084,793	127,084,793	0	1,929,055	0	1,929,055
2092	8,447,962,807	111,302,904	111,302,904	0	1,586,383	0	1,586,383
2093	8,945,030,434	96,779,832	96,779,832	0	1,295,200	0	1,295,200
2094	9,491,792,503	83,511,493	83,511,493	0	1,049,418	0	1,049,418
2095	10,090,282,314	71,480,911	71,480,911	0	843,418	0	843,418
2096	10,742,648,165	60,658,567	60,658,567	0	672,040	0	672,040
2097	11,451,197,347	51,004,332	51,004,332	0	530,592	0	530,592
2098	12,218,510,468	42,468,995	42,468,995	0	414,835	0	414,835
2099	13,047,381,334	34,994,443	34,994,443	0	320,962	0	320,962
2100	13,940,765,363	28,514,730	28,514,730	0	245,569	0	245,569
2101	14,901,890,077	22,958,007	22,958,007	0	185,648	0	185,648
2102	15,934,308,466	18,248,284	18,248,284	0	138,557	0	138,557
2103	17,041,944,419	14,306,790	14,306,790	0	101,999	0	101,999
2104	18,228,951,280	11,053,085	11,053,085	0	73,993	0	73,993
2105	19,499,860,867	8,406,450	8,406,450	0	52,841	0	52,841
2106	20,859,604,767	6,287,485	6,287,485	0	37,109	0	37,109
2107	22,313,537,188	4,619,524	4,619,524	0	25,601	0	25,601
2108	23,867,465,741	3,330,199	3,330,199	0	17,329	0	17,329
2109	25,527,571,107	2,352,789	2,352,789	0	11,496	0	11,496
2110	27,300,534,176	1,627,081	1,627,081	0	7,465	0	7,465
2111	29,193,603,344	1,100,019	1,100,019	0	4,739	0	4,739
2112	31,214,530,980	726,115	726,115	0	2,937	0	2,937
2113	33,371,582,395	467,369	467,369	0	1,775	0	1,775
2114	35,673,646,424	292,975	292,975	0	1,045	0	1,045
2115	38,130,213,567	178,669	178,669	0	598	0	598
2116	40,751,422,170	105,918	105,918	0	333	0	333
2117	43,548,119,430	61,012	61,012	0	180	0	180
2118	46,531,866,909	34,131	34,131	0	95	0	95
2119	49,714,967,554	18,534	18,534	0	48	0	48
2120	53,110,550,059	9,758	9,758	0	24	0	24
2121	56,732,608,991	4,975	4,975	0	11	0	11
2122	60,596,091,792	2,448	2,448	0	5	0	5
2123	64,716,895,731	1,153	1,153	0	2	0	2
					\$ 7,934,931,333	\$ 0	\$ 7,934,931,333



Projection of Plan Net Position and Benefit Payments



SECTION H

GLOSSARY OF TERMS

Glossary of Terms

Actuarial Accrued Liability (AAL). The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability.”

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 mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”

Actuarial Present Value of Future Plan Benefits. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Actuarial Value of Assets (AVA). Smoothed value of assets that recognizes the difference between the expected investment return using the actuarial valuation assumption of 7.00 percent and the actual investment return over a five-year period. Dampens volatility of asset value over time.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Annual Required Contribution. The sum of the normal cost and amortization of the unfunded actuarial accrued liability.

Asset Return. The net investment return for the asset divided by the mean asset value. Example: if \$1.00 is invested and yields \$1.070 after a year, the asset return is 7.00 percent.

Funded Ratio. The actuarial value of assets divided by the actuarial accrued liability. Measures the portion of the actuarial accrued liability that is currently funded.

Market Value of Assets (MVA). The value of assets currently held in the trust available to pay for benefits of the Pension Plan. Each of the investments in the trust is valued at market price which is the price at which buyers and sellers trade similar items in the open market.

Normal Cost (NC). The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Unfunded Actuarial Accrued Liability (UAAL). The difference between the actuarial accrued liability and actuarial valuation assets. Sometimes referred to as “unfunded accrued liability.”