

# EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF HAWAII

REPORT TO BOARD OF TRUSTEES ON THE **100<sup>th</sup>**  
ANNUAL ACTUARIAL VALUATION  
FOR THE YEAR ENDING JUNE 30, 2025





December 29, 2025

Board of Trustees  
Employees' Retirement System of  
The State of Hawaii  
City Financial Tower  
201 Merchant St., Ste. 1400  
Honolulu, HI 96813-2980

Dear Trustees:

**SUBJECT: ACTUARIAL VALUATION AS OF JUNE 30, 2025**

It is our pleasure to present the results of the **100<sup>th</sup>** annual actuarial valuation of the Employees' Retirement System of the State of Hawaii (ERS). We certify that the information contained in the 2025 actuarial valuation report is accurate and fairly presents the actuarial position of the ERS as of June 30, 2025. Except as noted about the Temporary Hazard Pay (THP), there have been no adjustments for events which occurred after this date.

All calculations have been made in conformity with generally accepted actuarial principles and practices and with the Actuarial Standards of Practice (ASOP) issued by the Actuarial Standards Board. In our opinion, the results presented comply with the requirements of Hawaii statutes and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The undersigned are independent actuaries and consultants. One or more of them are an Enrolled Actuary and/or a Member of the American Academy of Actuaries. All are experienced in performing valuations for large public retirement systems.

This report was prepared at the request of the Board and is intended for use by ERS and those designated or approved by the Board. This report may be provided to parties other than ERS only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

#### **ACTUARIAL VALUATIONS**

The primary purpose of the valuation report is to determine the adequacy of the current employer contribution rate through measuring the resulting funding period, to describe the current financial condition of ERS, and to analyze changes in ERS's condition. In addition, the report provides various summaries of the data. This report may not be appropriate for other purposes. The information required by ERS in connection with Governmental Accounting Standards Board Statement Numbers 67 and 68 (GASB Nos. 67 and 68) will be provided in a separate report.

Valuations are prepared annually, as of June 30th of each year, the last day of ERS's plan year and fiscal year.

## **FINANCING OBJECTIVES**

The employee and employer contribution rates have been set by Law and are intended to provide for the normal costs of ERS and to amortize the unfunded actuarial accrued liability (UAAL) over a reasonable amount of time, which will ensure benefit security and intergenerational equity. The funding period is the number of years until the unfunded actuarial accrued liability (UAAL) is fully amortized. Hawaii Revised Statutes §88-122(e)(1) state that the employer contribution rates are subject to adjustment when the funding period is greater than the maximum funding period. The statutes were modified by the 2024 Hawaii Legislature to decrease the maximum funding period from 30 years to 25 years in 2024. In addition, the maximum funding period will decrease by 1 each year in the future until the maximum funding period reaches 20 years, at which point it will continue to be 20 years for all future years. Based on this schedule, the maximum funding period for this 2025 actuarial valuation is 24 years.

## **PROGRESS TOWARD REALIZATION OF FINANCING OBJECTIVES**

The actuarial accrued liability (AAL), the UAAL, and the determination of the resulting funding period illustrate the progress toward the realization of financing objectives. ERS's liabilities grew faster than expected. This was caused primarily by two sources: i) individual salary increases being more than expected by the assumptions, and ii) the recognition of THP payments in the liabilities. On the asset side, ERS experienced an actuarial loss as a result of returns in 2025 not achieving the assumed 7% in addition to continued recognition of deferred asset losses from prior years. In addition, ERS adopted new assumptions as a result of the 2025 experience study, which caused the unfunded accrued liability to increase. As a result, the UAAL increased (in dollars) based on this actuarial valuation as of June 30, 2025 and ERS's underfunded status as measured by the UAAL is now \$14.41 billion.

The 2017 Legislature passed legislation that made significant changes to the future employer contribution rates. The employer contribution rate for Police and Fire employees increased to 41% and the employer contribution rate for All Other Employees increased to 24%. The funding period assumes that these contribution rates will remain in effect throughout the funding period. Under current law, the contribution rates are expected to stay at these levels until ERS is fully funded. These increases have improved the outlook of ERS. As long as the contributions are made, ERS's funded status should improve and ERS should be able to absorb moderate adverse experience without a need to further increase the contribution rates.

The 2011 Legislature made changes to the benefits and member contribution rates for employees hired after June 30, 2012. Because these changes result in significantly higher contributions towards the unfunded liability in the future than in the current year, we believe it is more appropriate to determine the funding period using an open group projection rather than a static mathematical formula, which would instead assume that all amortization payments in the future will be the same percentage of pay as in the current year.

We have determined that the funding period for paying off the UAAL of ERS (in aggregate) is 21 years. Normally, we would expect the funding period to decrease by one each year if all assumptions are exactly



met. Since the prior year's funding period was 22 years, we are at the expected funding period from last year. Given that the System experienced actuarial losses on both its assets and its liabilities, this result may be surprising. However, since the contributions to the System are a fixed percentage of payroll, an increase in the covered payroll that is larger than assumed implies a larger contribution stream in future years, which means larger payments towards the unfunded liabilities of ERS.

Hence, even though the total unfunded liabilities increased from last year, the end period (fiscal year) over which the unfunded liabilities are to be paid off did not change and the funding period decreased to 21 years. Because this period is less than 24 years, the minimum objectives set in State statute are currently being realized. In addition, when the current contribution rates were passed by the Legislature in 2017, it was expected that the funding period would be 21 years as of the 2025 valuation, thus ERS remains on track to achieve full funding in the same timeframe as originally set by the legislation.

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a plan's funded status. The funded status alone is not appropriate for assessing the need for future contributions nor assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations. However, the trend (historical and projected) of the funded ratio is a strong metric to use for assessing the dependability of the current funding policy and its ability to accumulate assets to pay benefits when due. The funded ratio is currently 63.6% compared with the 63.0% funded ratio in the previous valuation. The funded ratio improved due to the sizeable contributions towards the unfunded liabilities of the system as well as the contributions related to the excess pension costs.

Given the plan's current and future contribution rates and the new tier of benefits, if all actuarial assumptions are met (including the assumption of the plan earning 7.00% on the actuarial value of assets), it is expected that:

1. The employer normal cost as a percentage of pay will decrease to the level of the newest tier as the old tier population declines and is replaced by new tier members,
2. The employer contribution will remain level throughout the amortization period,
3. Thus, the net amount available to amortize the UAAL will increase over time,
4. The UAAL will increase in nominal dollars until the net amount for amortization is large enough to cover the interest charges and then begin to decrease, which is currently expected to occur next year,
5. The UAAL will be fully amortized after 21 years, and
6. In the absence of benefit improvements and in consistent financial markets, the funded ratio should increase steadily until it reaches 100%.

The current projections expect the UAAL to begin to decline in FY 2026 with the annual amount of decline accelerating year over year thereafter. We believe one year is a reasonable amount of time as defined



under the ASOP No. 4. All other parameters and methods used in the valuation also meet the requirements of a Reasonable Actuarially Determined Contribution (RADC) under the ASOP.

Thus, the employer contribution rates of 41% of payroll for Police and Fire and 24% for All Other Employees meet the requirements of a RADC.

However, it is important to again note that these statements are based on the actual experience meeting the current assumptions. Also, these statements depend upon the employers meeting the contribution requirements established by the 2017 Legislature. Future changes to the actuarial assumptions or future changes to reduce the contribution requirements, or any increase in benefits, could significantly change the outlook of ERS and the expectation on when ERS will reach a 100% funded level.

This valuation assumed the continuing ability of the plan sponsors 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.

#### **BENEFIT PROVISIONS AND LEGISLATIVE CHANGES**

This is the thirteenth valuation with members covered under the new benefit tier.

There have been no changes in the benefit provisions since the prior valuation. See Table 16 of this report for more details on the benefit provisions for members of ERS.

#### **ASSUMPTIONS AND METHODS**

The actuarial assumptions used in this valuation were adopted by the Board in September of 2025 based on the recommendations provided by an Experience Study performed by GRS. The actuarial assumptions and methods have been updated since the prior valuation to reflect these recommendations.

Further detail on the assumptions and methods may be found in Table 18 of this report and in our Experience Study Report dated August 5, 2025.

The actuarial assumptions represent estimates of future experience and are not market measures. The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. Based on the scope of this engagement, we have not performed analysis on the potential range of future measurements based on other factors. The actuarial calculations are intended to provide information for rational decision making.

In our opinion, the assumptions are internally consistent and are reasonably based on the actual experience of ERS. The assumptions are reasonable and consistent with the Actuarial Standards of Practice.



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.

#### **DATA**

Member data for retired, active, and inactive participants was supplied as of March 31, 2025, by ERS's staff. We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data. Asset information was supplied by ERS's staff.

#### **IMPACT OF TEMPORARY HAZARD PAY**

As the reader is probably aware, many of the employees and retirees covered by ERS have or will be receiving Temporary Hazard Pay (THP) for periods worked during March 2020 to March 2022 as a result of the COVID-19 pandemic. Payments for known settlement amounts as of March 2025 have been incorporated into the pensionable earnings for impacted Tier 1 employees (the payments are not included in the pensionable earnings of Tier 2 employees).

For those employees (and retirees) who have not settled and/or received their payments yet, no adjustments have been made to their individual liabilities as of the valuation date. The impact of the THP payments will be incorporated into their liabilities in future valuations. However, because ERS has accrued the contributions for the known fiscal year 2026 THP payments in ERS's 2025 financial statements, we have incorporated an offsetting liability equal to those accrued contributions in the actuarial valuation (as a minimum impact).

#### **RESPONSIBILITY FOR TABLES AND SCHEDULES**

The actuary is responsible for the information with respect to years after 1999 in the Required Supplementary Information, and the Notes to Required Supplementary Information in the Financial Section of ERS's Annual Comprehensive Financial Report (ACFR). Information with respect to years prior to 2000 was supplied by ERS.

Tables and schedules in the Actuarial Section of the ACFR were generally prepared directly by the Actuary. However, certain of these tables were prepared by ERS utilizing information from this report. When the tables were prepared by ERS from our report, they were so noted.

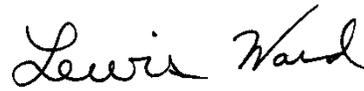


The undersigned are independent actuaries and consultants. Mr. Newton is an Enrolled Actuary and both Mr. Newton and Ms. Fehrman are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries. Finally, all of the undersigned are experienced in performing valuations for large public retirement systems.

Sincerely,  
**Gabriel, Roeder, Smith & Company**



Joseph P. Newton, FSA, EA, MAAA  
Pension Market Leader & Actuary



Lewis Ward  
Consultant



Karli Fehrman, ASA, MAAA  
Consultant

# Table of Contents

## Pages

	Cover Letter	
<b>Section A</b>	Executive Summary.....	1
<b>Section B</b>	Introduction .....	2
<b>Section C</b>	Funded Status .....	3
<b>Section D</b>	Analysis of Changes.....	5
<b>Section E</b>	ERS Assets .....	6
<b>Section F</b>	Benefit and Contribution Provisions.....	7
<b>Section G</b>	GASB Disclosure .....	8
<b>Section H</b>	Actuarial Assumptions and Methods.....	9
<b>Section I</b>	Membership Data .....	10
<b>Section J</b>	Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions.....	11
<b>Section K</b>	Summary and Closing Comments .....	16
<b>Section L</b>	Actuarial Certification Statement .....	17
<b>Section M</b>	Valuation Tables.....	19
<b>Section N</b>	Statistical Tables.....	69
<b>Section O</b>	Definition of Actuarial Terms.....	97



## SECTION A – EXECUTIVE SUMMARY

The following table summarizes the key results of the June 30, 2025 actuarial valuation of the Employees' Retirement System of the State of Hawaii (ERS).

Item	2025	2024
<b>Membership</b> <ul style="list-style-type: none"> <li>• Number of               <ul style="list-style-type: none"> <li>- Active members</li> <li>- Retirees and beneficiaries</li> <li>- Inactive, vested</li> <li>- Total</li> </ul> </li> <li>• Covered payroll for active members</li> <li>• Actual benefit payments and refunds</li> </ul>	66,826 56,673 8,692 <hr style="width: 100px; margin: 0 auto;"/> 132,191 \$5,266 million \$2,002 million	65,337 55,820 8,847 <hr style="width: 100px; margin: 0 auto;"/> 130,004 \$4,957 million \$1,907 million
<b>Assets</b> <ul style="list-style-type: none"> <li>• Actuarial (smoothed) value</li> <li>• Market value</li> <li>• Return on actuarial value</li> <li>• Return on market value</li> <li>• Employer contributions during fiscal year</li> <li>• External cash flow %</li> </ul>	\$25,206 million \$24,926 million 6.5% 5.9% \$1,480 million (0.7%)	\$23,841 million \$23,701 million 6.8% 6.6% \$1,396 million (0.8%)
<b>Actuarial Information</b> <ul style="list-style-type: none"> <li>• Total normal cost % (employee + employer)</li> <li>• Unfunded actuarial accrued liability (UAAL)</li> <li>• Funded ratio (based on smoothed assets)</li> <li>• Funded ratio (based on market assets)</li> <li>• Funding period (years)*</li> <li>• Employer contribution rate               <ul style="list-style-type: none"> <li>% of projected payroll</li> <li>Police and Firefighters</li> <li>All Other Employees</li> </ul> </li> </ul>	14.57%  \$14,410 million 63.6% 62.9% 21  41.00% 24.00%	14.51%  \$14,008 million 63.0% 62.6% 22  41.00% 24.00%

\* Funding Period based on actuarial value of assets, scheduled employer contribution rates, and an open group projection reflecting the adopted changes in benefits and member contribution rates.

## SECTION B – INTRODUCTION

The results of the June 30, 2025 actuarial valuation of ERS are presented in this report.

The primary purpose of the valuation report is to determine the adequacy of the current employer contribution rates through measuring the resulting funding period, to describe the current financial condition of ERS, and to analyze changes in ERS's condition.

In preparing this valuation, Gabriel, Roeder, Smith & Company (GRS) has relied on employee data and asset information provided by the staff of ERS. While not verifying the data at their source, GRS has performed such tests for consistency and reasonableness as has been deemed necessary to be satisfied with the appropriateness of using the data supplied.

Section C discusses the funded status of ERS. Section D analyzes the change in the UAAL. Section G discusses the disclosure requirements of GASB No. 67.

Sections E, F, H, and I discuss background information used in the preparation of this report--benefit provisions, actuarial assumptions and methods, financial information, and membership data. Section J contains a discussion about risk and plan maturity measures and a table showing current and historical risk metrics. Section K contains a final summary and some closing comments about this year's valuation and Section L contains the actuarial certification.

All the tables referenced by the other sections appear in Section M.

## SECTION C – FUNDED STATUS

Table 1 shows the development of the Plan's liabilities and funded status for the current year and compares it with those of the prior year.

The calculation of the funded status involves the following steps and includes the following comments:

- The actuarial present value of future benefits is determined for the present members, including retired members, beneficiaries, inactive members, and active members. This amounts to \$46.43 billion. Table 2 shows the development of this total for the current year and the prior year.
- The individual entry age normal cost method is used to allocate the actuarial present value of future benefits between that portion due for the current year (the normal cost), prior years (the actuarial accrued liability) and future years (the present value of future normal cost). Under the individual entry age normal cost method, the current and future normal costs are determined as a level percentage of payroll. Table 3 shows an analysis of the normal cost for the current year and the prior year. The amount needed to fund the current and future normal costs is 27.72% of pay for Police and Fire employees and 12.93% for All Other Employees. It includes all of the employees' contribution (if any) and the employers' normal cost rate.
- A part of the normal cost is paid by the employee contributions of 12.88% of pay for Police and Firefighters, leaving 14.84% of pay to be funded by the employers. Thus, the current year's employer normal cost for Police and Firefighters is deemed to be 14.84% of the valuation payroll. As for the All Other Employees group, the average weighted effective employee contribution rate is 6.25% of pay, leaving 6.68% of pay to be funded by the employers. This is shown in Line 3 of Table 1.
- The UAAL is \$14.41 billion for 2025, an increase from \$14.01 billion in 2024. As indicated in Table 1, the UAAL equals the difference between the total actuarial accrued liability (Item 7) and current actuarial assets (Item 8).
- In determining the number of years that will be required to amortize the UAAL, an assumption is made concerning future growth of ERS's covered payroll. Payroll can grow from intrinsic growth in the pay of individual members and it can also grow due to active membership growth. In determining the funding period of ERS, we have assumed that the number of active members will remain constant in our open group projection.
- As shown in Item 10 of Table 1 and on Table 9c, the period to fund the UAAL is 24 years for the Police and Fire and 20 years for the All Other Employees group. When combining both groups, the aggregate funding period for ERS is 21 years (i.e. the UAAL is expected to be paid off in fiscal year 2046). Since the aggregate funding period based on the contribution rates is less than the maximum funding period (24 years), the employer contribution rates are adequate to meet the requirements of Hawaii Revised Statutes §88-122(e)(1). Please note that this statement assumes the current contribution rates will remain in effect throughout the entire funding period.

## SECTION C – FUNDED STATUS (CONTINUED)

As of the valuation date, ERS has a funded ratio of 63.6%, based on the actuarial value of assets.

Due to the significant changes in the future contribution rates and benefits for employees hired after June 30, 2012, ERS's funding policy uses an open group projection for determining how many years it will take to eliminate the unfunded liabilities of ERS. ERS is expected to be fully funded in 2046 which is 21 years from now. Therefore, the funding period is equal to 21 years. The open group projection assumes that the number of active members will remain constant and that there will be no actuarial gains or losses on liabilities or investments.

## SECTION D – ANALYSIS OF CHANGES

Section C has noted that the unfunded actuarial accrued liability (UAAL) is \$14.41 billion as of June 30, 2025 compared to the \$14.01 billion UAAL for 2024.

Table 7 develops the estimated yield for the year based on two measures of asset values. Table 9b takes the information contained in Table 6 and develops the expected value of actuarial assets for this valuation, based on the prior year's investment return assumption of 7.00%.

As shown in Item 6 of Table 9b, the expected value of actuarial assets as of June 30, 2025 is \$25.33 billion. As developed in Table 6, the actual value of actuarial assets as of the valuation date is \$25.21 billion (as repeated in Item 7 of Table 9b). Thus, the loss for the year is the difference between the actual value and the expected value, or \$122.2 million (as shown in Item 8 of Table 9b). This asset loss for the year is a direct reflection of the estimated yield for the year based on the value of actuarial assets, namely 6.49% (as shown in Item B4 of Table 7) being less than the assumed rate of return.

The markets returned less than assumed in FY 2025 with a return of 5.93% on the market value of assets, which is below our benchmark of 7.00%. Therefore, the return for the year was less than our expectation. The rate of return for the actuarial value was 6.49%, which is greater than the market return due to the smoothing methodology used in the determination of the actuarial value of assets. The actuarial value of assets exceeds the market value of assets by \$280.0 million, so there are \$280.0 million in deferred investment losses still to be recognized in the actuarial value of assets.

Table 9a shows the total unanticipated change in the unfunded actuarial accrued liability was \$488.2 million (item 7), this means the UAAL increased \$488.2 million more than expected from all sources for the 2025 fiscal year. Updates made to the assumptions and methods as a result of the 2025 experience study increased the UAAL by \$170.0 million. As noted above, the actuarial investment loss was equal to \$122.2 million. This means that there was a liability experience loss during the year equal to \$196.0 million. The liability experience loss is primarily due to higher than expected salary increases for both employee groups. For Tier 1 members, the pensionable earnings include overtime, and it is possible a source of the higher salaries was an increase in overtime during the fiscal year.

Table 9c shows the current year's valuation results plus a 30-year open group projection of ERS's assets and liabilities. As discussed previously, this projection assumes no actuarial gains or losses in the actuarial liabilities or the actuarial value of assets. In addition, the projection assumes the current employer contribution rates will continue and reflects the changes to the benefits and member contribution rates of employees hired after June 30, 2012. As may be seen by examining this table, the unfunded liability of ERS (Column 7) is expected to begin to decline in 2026 and finally be eliminated in 2046.

The June 30, 2046 valuation is 21 years from this valuation. Therefore, for the purpose of satisfying Hawaii Revised Statutes §88-122(e)(1) the funding period is considered to be 21 years.



## SECTION E – ERS ASSETS

Table 4 presents a summary of the market value of assets held by ERS. About 71% of the total invested assets available for benefits are held in equities (including alternative investments) and real assets compared to about 74% last year. Table 5 shows a reconciliation of the assets from the beginning of the prior year to the valuation date.

Table 6 shows the development of the Actuarial Value of Assets (AVA). An actuarial value is used in order to dampen some of the year-to-year fluctuations which would occur if the market value were used instead. The expected actuarial value of assets is calculated and compared to the actual market value of assets. This difference is then compared with the remaining deferrals from the prior years to determine this year's excess/shortfall. The current year's excess/shortfall is offset directly against any prior years' deferrals of the opposite sign (oldest bases first). Any remaining bases are then recognized over a four-year period from the date the base was established. Any remaining deferrals, after the current year's recognition, are then subtracted from the market value of assets to get the final actuarial value of assets. This method has the advantage of more quickly converging towards the market value in years when the returns go in the opposite direction of the prior years.

Table 7 shows an estimate of ERS's dollar-weighted rate of return for the year. This is shown on (i) the market value of assets (reflecting all realized and unrealized gains and losses), and (ii) the actuarial value of assets. While the dollar-weighted market return this year was 5.93%, the return on the actuarial value was 6.49%. The difference between these is due to the smoothing effect of the AVA valuation method.

Table 9b determines the asset gain or loss for the year, based on the difference between the actual fund return and the actuarial value of assets and the prior year's assumed rate of 7.00%.

Finally, Table 13 shows a history of cash flows for the trust.

## SECTION F – BENEFIT AND CONTRIBUTION PROVISIONS

Table 16 summarizes the benefit provisions of ERS used in this valuation. Table 17 is a historical record of prior legislative changes starting with changes effective in 1999. There were significant changes made by the 2011 Legislature to the benefit provisions of ERS for employees hired after June 30, 2012. Because the Board has chosen to use the Individual Entry Age Normal Cost method, the normal cost and the growth of the accrued liabilities will be slowly impacted by the changes in the benefit provisions, as members under the new tier are hired to replace members who are covered under the older tier of benefits.

There have been no changes to the benefit provisions since the last valuation that had an actuarial impact on the valuation. Act 192 was enacted by the 2024 Legislature that decreased the maximum funding period from 30 years to 25 years beginning with the June 30, 2024 actuarial valuation. Additionally, the legislation states that the maximum funding period will decrease by 1 each year until the maximum funding period reaches 20 where it will remain in future years.

The 2017 Legislature enacted ACT 017 which increased the employer contribution rates over a four-year period.

The employer contribution rates for Police and Fire employees are 41% of pay in FY 2021 and beyond while the employer contribution rates for All Other Employees are 24% of pay in FY 2021 and beyond.

This valuation reflects benefits promised to members by ERS's statutes. There are no ancillary benefits - retirement type benefits not required by ERS's statutes but which might be deemed an ERS liability if continued beyond the availability of funding by the current funding source.

Act 179/2004 was adopted during FY 2003/2004 and established the new Hybrid class that became effective on July 1, 2006. Current participants had the choice to elect to move to the new class or stay in the current plan. There were 26,228 plan members who elected to transfer. The Hybrid class membership has since grown to approximately 54,200 members.

## SECTION G – GASB DISCLOSURE

The Governmental Accounting Standards Board (GASB) has issued Statement No. 67 which provides the manner in which the actuarial condition of a public sector retirement plan is to be disclosed in the system's financial statements. This new standard replaces GASB No. 25, and went into effect for ERS for fiscal years ending on or after June 30, 2014.

Similar to last year, we will provide a separate accounting report with the required disclosures under this new standard.

## SECTION H – ACTUARIAL ASSUMPTIONS AND METHODS

In determining costs and liabilities, actuaries use assumptions about the future, such as rates of salary increase, probabilities of retirement, termination, death and disability, and an investment return assumption. ERS's Board adopts the assumptions used, taking into account the actuary's recommendations.

In addition to the actuarial assumptions, the actuary also makes use of an actuarial funding method to allocate costs to particular years. In common with most public sector plans, ERS uses the entry age normal method (individual normal cost). This method produces a relatively level pattern of funding for individual employees over time. We believe this method is appropriate for ERS.

ERS's Board adopted new actuarial assumptions on September 8, 2025 to be used effective with the June 30, 2025 actuarial valuation. For a complete description of the recommended assumption changes please see our experience study report dated August 5, 2025.

Please see Table 18 for a complete description of the actuarial assumptions and methods.

## SECTION I – MEMBERSHIP DATA

Membership data was provided in electronic files, via a secured file transfer protocol, by the staff. Data for active members include sex, birthdate, service, pay rate as of March 2025, employer entity and accumulated employee contributions. Data for inactive, nonretired members was similar, but also includes the members' unreduced benefit. For retired members, data includes status (service retiree, disabled retiree or beneficiary), sex, birthdate, pension amount, pension COLA amount, form of payment, beneficiary sex and birthdate if applicable, and date of retirement.

While not verifying the correctness of the data at the source, we performed various tests to ensure the internal consistency of the data and its overall reasonableness. Membership statistics are summarized in Table 12a. Table 12b summarizes certain active member data, and the age/service distribution of active members is shown in Table 19. Tables 30-43 show various distributions of retirees.

Since last year, the number of active members increased by 1,489 members from 65,337 to 66,826. These 66,826 active members are distributed as follows:

Category	Number	% of Total
(1)	(2)	(3)
Police & Fire	4,831	7.2%
Contributory	391	0.6%
Noncontributory	7,392	11.1%
Hybrid	<u>54,212</u>	<u>81.1%</u>
Total	66,826	100.00%

Covered payroll (which is the annualized pay for all active members on the census date) increased by 6.2% since last year. ERS also provided the actual aggregate payroll for fiscal year 2025 on which contributions were received (this includes payroll for members who terminated and retired during the year). The lesser of the covered payroll and the aggregate payroll is adjusted by the payroll growth rate to produce the *projected FY 2026 payroll for contribution purposes*, as shown in Item 1 of Table 1.

Average age of the active members decreased from 47.9 last year to 47.7 this valuation and the average service decreased from 12.9 to 12.6 years.

## SECTION J – ASSESSMENT AND DISCLOSURE OF RISK ASSOCIATED WITH MEASURING PENSION OBLIGATIONS AND DETERMINING PENSION PLAN CONTRIBUTIONS

The determination of the accrued liability and an actuarially determined contribution (or funding period) requires the use of 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 assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and an actuarially determined contribution (or funding period) 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 assumptions; changes in economic or demographic 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. 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;
3. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
4. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
5. 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.

## **SECTION J – ASSESSMENT AND DISCLOSURE OF RISK ASSOCIATED WITH MEASURING PENSION OBLIGATIONS AND DETERMINING PENSION PLAN CONTRIBUTIONS (CONTINUED)**

### **ERS SPECIFIC RELATIONSHIP TO CERTAIN RISKS**

While ERS has various levels of exposure to all of the risks listed above, in our opinion the three that warrant the most observation for ERS's Board specifically are assumption change risk and affordability risk.

Assumption Change Risk is the potential for the environment to change such that future valuation assumptions are adjusted to be different than the current assumptions. For example, declines in interest rates or increases in earnings multiples over time may result in a change in the assumed rates of return used in the valuation. A healthier workforce may result in changes in employee behavior such that retirement rates are adjusted to reflect employees working longer. And the difference in changing an assumption versus the other experience related risks listed above is instead of the loss slowly building over time, there is the immediate recognition of the change. Over the past decade, the changing of assumptions has increased the liabilities of ERS more than any other source. While those changes were warranted and put ERS on a stronger path going forward, it did cause a setback in many of the actuarial measurements and at least gives the appearance of a weaker System. We do not currently anticipate any significant changes to assumptions in the future and will continue to communicate with the Board if any issues beginning to show.

Affordability Risk is the simple fact that the contributions into ERS are quite large and in order to achieve the benefit security desired by the Board and the beneficiaries of ERS, they must remain high for quite a number of years. State Law requires the actuarial contribution occur and there has been no requests or attempts to lower the amounts, but it will always be a risk a future decision maker does attempt to do so.

This is also risk in a continued contraction in the headcount of active members. As was realized in the 2022 valuation, the contributions into ERS are directly tied to the covered payroll of the active membership and the projection of that payroll is used in determining the funding period. If the headcount were to decline, it would be difficult for the amount of future revenue to meet the current expectations and thus it would likely take more than 21 years to fully amortize the UAAL.

### **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. Several generally accepted plan maturity measures are described below and are followed by a table showing a 10-year history of the measurements for ERS.

### **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% 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.



## **SECTION J – ASSESSMENT AND DISCLOSURE OF RISK ASSOCIATED WITH MEASURING PENSION OBLIGATIONS AND DETERMINING PENSION PLAN CONTRIBUTIONS (CONTINUED)**

### **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 (5 to 2 ratio), 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 active 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.

### **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 existing funds are being used to make 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.

### **DURATION OF ACTUARIAL ACCRUED LIABILITY**

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

### **ADDITIONAL RISK ASSESSMENT**

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. While a robust measurement of additional risk assessment is outside the scope of the annual actuarial valuation, some scenario tests and sensitivity tests are included in the valuation summary PowerPoint presentation presented to the Board at the Board's January Board Meeting.

In addition, an annual stress test as prescribed by state law is conducted each year. Please see the stress test report dated December 12, 2025, which was conducted in conjunction with this valuation.



## SECTION J – ASSESSMENT AND DISCLOSURE OF RISK ASSOCIATED WITH MEASURING PENSION OBLIGATIONS AND DETERMINING PENSION PLAN CONTRIBUTIONS (CONTINUED)

### LOW-DEFAULT RISK OBLIGATION MEASURE

ASOP No. 4 was revised and reissued in December 2021 by the 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 LDROM estimates the amount of money the plan would need to invest in low risk securities to provide the benefits with greater certainty. The traditional model based on expected portfolio returns expects lower costs but with higher risk, which creates less certainty and a possibility of higher costs. The LDROM model creates higher expected costs but more predictability when compared to the traditional model. Thus, the difference between the two measures (Valuation and LDROM) is one illustration of the possible costs the sponsor could incur if there was a reduction in the investment risk in comparison to the current diversified portfolio. However, the downside risk would be limited in the scenarios where the current portfolio would fail to achieve returns in excess of the low-default-risk discount, in this case 5.46%.

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.	LDROM measure of benefits earned as of the measurement date:	\$48,045 million
B.	Valuation liability at 7% on measurement date:	<u>39,616 million</u>
C.	Cost to mitigate investment risk in the System’s portfolio:	\$ 8,429 million

Disclosures: Discount rate used to calculate LDROM: 5.46% Intermediate FTSE Pension Discount Curve as of June 30, 2025. This measure may not be appropriate for assessing the need for or amount of future contributions as the current portfolio is expected to generate significantly more investment earnings than the low-default-risk portfolio. This measure is also not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan’s benefit obligation as this measure includes projections of salary increases and the ability for current members to continue to accrue eligibility and vesting service.



## SECTION J – ASSESSMENT AND DISCLOSURE OF RISK ASSOCIATED WITH MEASURING PENSION OBLIGATIONS AND DETERMINING PENSION PLAN CONTRIBUTIONS (CONTINUED)

	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
Ratio of the market value of assets to payroll	4.61	4.66	4.67	4.74	4.59	3.75	3.81	3.79	3.68	3.30
Ratio of actuarial accrued liability to payroll	7.33	7.44	7.54	7.55	7.14	7.06	6.95	6.82	6.72	6.44
Ratio of actives to retirees and beneficiaries	1.18	1.17	1.17	1.19	1.25	1.30	1.33	1.36	1.40	1.48
Ratio of net cash flow to market value of assets	-0.7%	-0.8%	-1.1%	-1.1%	-0.5%	-1.1%	-1.8%	-2.0%	-2.0%	-1.9%
Duration of the actuarial accrued liability*	14.76	14.76	14.77	14.88	14.95	15.03	15.11	NA	NA	NA

\*Duration measure not available prior to 2019

## SECTION K – SUMMARY AND CLOSING COMMENTS

To summarize the results of the actuarial valuation of the Employees' Retirement System as of June 30, 2025, it is our opinion that if all assumptions are met going forward, the present assets plus future expected contributions will be sufficient to provide the benefits specified in the law.

This year's valuation shows that ERS is expected to be fully funded in 2046 (21 years from this year's valuation date), which is the same calendar year projected in last year's valuation. This is due to the increase in expected future contributions caused by the increase in the active headcount and covered payroll that occurred in FY 2025. The 21 is consistent with the original impact statement which set the current contribution pattern which projected a 21-year funding period in 2025.

Based on this year's valuation results, the statutory contribution rates are sufficient to eliminate the UAAL over a period of 24 years or less as specified by Hawaii Revised Statute 88-122(e)(1).

Our modeling continues to show that the new contribution levels should be able to absorb material adverse experience without resulting in a need for further contribution rate increases. Moderate adverse experience may result in the date ERS obtains a fully funded status being later than 2046, but it is not expected to result in a requirement for further contribution rate increases.

The results of this valuation are uneven from the financial outlook of the System. While the end date for achieving full funding for the System remained unchanged when compared with last year (2046 for both valuations), ERS saw a larger than expected increase UAAL. This follows an increase in the UAAL in three of the previous four years. In addition, ERS is still deferring \$280.0 million in investment losses. If these deferred investment losses are recognized instead of being offset, the end date for achieving full funding could be extended.

Finally, while this valuation saw the date of full funding remain the same as last year, it is important to note that these projections assume the current contribution rates will be maintained throughout the funding period and that payroll will continue to grow as assumed. Any reduction in the contribution rates or slowing of the payroll growth below the assumed rate would increase the length of time until ERS achieves a fully funded status.



## SECTION L – ACTUARIAL CERTIFICATION STATEMENT

	Police and Firefighters June 30, 2025 (1)	All Other Employees June 30, 2025 (2)	All Employees June 30, 2025 (3)
1. Gross normal cost as a percentage of pay	27.72%	12.93%	14.57%
2. Present value of future benefits			
a. Active employees	\$ 4,752,227,403	\$ 18,416,856,195	\$ 23,169,083,598
b. Inactive members	71,752,373	1,198,872,140	1,270,624,513
c. Pensioners and beneficiaries	4,700,105,997	17,285,320,443	21,985,426,440
d. Total	<u>\$ 9,524,085,773</u>	<u>\$ 36,901,048,778</u>	<u>\$ 46,425,134,551</u>
3. Present value of future employee and employer contributions			
a. Present value of future normal costs	\$ 1,462,900,942	\$ 5,346,197,356	\$ 6,809,098,298
b. Present value of future employee contributions	758,495,647	2,921,693,806	3,680,189,453
c. Present value of future employer normal costs (Item 3a - Item 3b)	\$ 704,405,295	\$ 2,424,503,550	\$ 3,128,908,845
4. Actuarial accrued liability (Item 2d - Item 3a)	\$ 8,061,184,831	\$ 31,554,851,422	\$ 39,616,036,253
5. Actuarial value of assets			
a. Annuity Savings Fund	\$ 1,144,430,180	\$ 3,103,220,300	\$ 4,247,650,480
b. Pension Accumulation Fund	4,483,345,461	16,474,851,341	20,958,196,802
c. Total	<u>\$ 5,627,775,641</u>	<u>\$ 19,578,071,641</u>	<u>\$ 25,205,847,282</u>
6. Unfunded actuarial accrued liability	\$ 2,433,409,190	\$ 11,976,779,781	\$ 14,410,188,971
7. Adequacy of contribution rates			
a. Statutory Contribution Rate for Fiscal Year 2026	41.00%	24.00%	25.84%
b. Funding Period in years as of June 30, 2025*	24	20	21

\* The Funding Period is calculated using an open group projection which reflects the impact of the benefits and member contribution rates for employees hired after June 30, 2012. It also assumes the current employer contribution rates will remain in place until the System is fully funded.



## SECTION L – ACTUARIAL CERTIFICATION STATEMENT (CONTINUED)

The actuarial valuation as of June 30, 2025 is based on the provisions of Chapter 88 of the Hawaii Revised Statutes, as amended. The assumptions used in the cost calculations were those adopted by the Board of Trustees in September of 2025 based on the actuary's actuarial experience investigation report for the period ending June 30, 2024. The actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures.

In our opinion, the comparison of the current contribution policies to ERS's liabilities were calculated in accordance with the provisions of Chapter 88 regarding the funding of the Employees' Retirement System on an actuarial reserve basis.

All of our work conforms with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The undersigned is an independent actuary and consultant. Mr. Newton is an Enrolled Actuary, a Member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries. Finally, he is experienced in performing valuations for large public retirement systems.



Joseph P. Newton, FSA, EA, MAAA  
Pension Market Leader & Actuary

## SECTION M – VALUATION TABLES

		Pages
<b>Table 1</b>	Development of Employer Cost.....	20
<b>Table 2</b>	Actuarial Present Value of Future Benefits.....	21
<b>Table 3</b>	Analysis of Normal Cost .....	22
<b>Table 4</b>	Statement of Net Position .....	23
<b>Table 5</b>	Statement of Changes in Net Position .....	24
<b>Table 6</b>	Development of Actuarial Value of Assets .....	25
<b>Table 7</b>	Estimation of Yields.....	26
<b>Table 8</b>	Allocation of Cash and Investments.....	27
<b>Table 9A</b>	Total Experience Gain or Loss .....	28
<b>Table 9B</b>	Investment Experience Gain or Loss .....	29
<b>Table 9C</b>	Projection Results .....	30
<b>Table 10</b>	Employer Covered Payroll.....	31
<b>Table 11</b>	Schedule of Funding Progress.....	32
<b>Table 12A</b>	Membership Data .....	33
<b>Table 12B</b>	Historical Summary of Active Member Data .....	34
<b>Table 13</b>	History of Cash Flow .....	35
<b>Table 14</b>	Solvency Test.....	36
<b>Table 15</b>	Highlights of Last Five Annual Actuarial Valuations.....	37
<b>Table 16</b>	Summary of Benefit Provisions.....	38
<b>Table 17</b>	Summary of Plan Changes .....	51
<b>Table 18</b>	Summary of Actuarial Methods and Assumptions .....	55



# TABLE 1

## Development of Employer Cost

	Police and Firefighters June 30, 2025	All Other Employees June 30, 2025	All Employees June 30, 2025
	(1)	(2)	(3)
1. Projected FY 2026 payroll for contribution purposes	\$ 586,437,392	\$ 4,817,151,331	\$ 5,403,588,723
2. Gross normal cost (Table 3)	27.72%	12.93%	14.57%
3. Employer normal cost rate (Table 3)	14.84%	6.68%	7.59%
4. Present value future benefits (Table 2)	\$ 9,524,085,773	\$ 36,901,048,778	\$ 46,425,134,551
5. Present value future employer normal cost	\$ 704,405,295	\$ 2,424,503,550	\$ 3,128,908,845
6. Present value future employee contributions	\$ 758,495,647	\$ 2,921,693,806	\$ 3,680,189,453
7. Actuarial accrued liability (Item 4 - Item 5 - Item 6)	\$ 8,061,184,831	\$ 31,554,851,422	\$ 39,616,036,253
8. Actuarial value of assets	\$ 5,627,775,641	\$ 19,578,071,641	\$ 25,205,847,282
9. Unfunded actuarial accrued liability (UAAL) (Item 7 - Item 8)	\$ 2,433,409,190	\$ 11,976,779,781	\$ 14,410,188,971
10. Funding Period*	24	20	21

	Police and Firefighters June 30, 2024	All Other Employees June 30, 2024	All Employees June 30, 2024
	(1)	(2)	(3)
1. Projected FY 2025 payroll for contribution purposes	\$ 553,420,240	\$ 4,531,329,081	\$ 5,084,749,321
2. Gross normal cost (Table 3)	27.12%	12.93%	14.51%
3. Employer normal cost rate (Table 3)	14.30%	6.85%	7.68%
4. Present value future benefits (Table 2)	\$ 8,848,499,422	\$ 35,433,921,342	\$ 44,282,420,764
5. Present value future employer normal cost	\$ 641,541,725	\$ 2,382,431,246	\$ 3,023,972,971
6. Present value future employee contributions	\$ 707,209,722	\$ 2,701,720,336	\$ 3,408,930,058
7. Actuarial accrued liability (Item 4 - Item 5 - Item 6)	\$ 7,499,747,975	\$ 30,349,769,760	\$ 37,849,517,735
8. Actuarial value of assets	\$ 5,267,073,293	\$ 18,573,966,051	\$ 23,841,039,344
9. Unfunded actuarial accrued liability (UAAL) (Item 7 - Item 8)	\$ 2,232,674,682	\$ 11,775,803,709	\$ 14,008,478,391
10. Funding Period*	22	22	22

\* The Funding Period is calculated using an open group projection which reflects the impact of the smaller benefits and larger member contribution rates for employees hired after June 30, 2012. Please refer to Table 9c for the full projection.



## TABLE 2

### Actuarial Present Value of Future Benefits

	Police and Firefighters June 30, 2025 (1)	All Other Employees June 30, 2025 (2)	All Employees June 30, 2025 (3)
1. Active members			
a. Service retirement benefits	\$ 4,605,226,708	\$ 17,068,296,033	\$ 21,673,522,741
b. Termination Benefits	87,892,972	790,387,578	878,280,550
c. Survivor benefits	17,645,480	132,033,858	149,679,338
d. Disability retirement benefits	41,462,243	426,138,726	467,600,969
e. Total	<u>\$ 4,752,227,403</u>	<u>\$ 18,416,856,195</u>	<u>\$ 23,169,083,598</u>
2. Retired members			
a. Service retirement	\$ 4,404,515,465	\$ 15,885,995,728	\$ 20,290,511,193
b. Disability retirement	41,602,392	346,536,692	388,139,084
c. Beneficiaries	253,988,140	1,052,788,023	1,306,776,163
d. Total	<u>\$ 4,700,105,997</u>	<u>\$ 17,285,320,443</u>	<u>\$ 21,985,426,440</u>
3. Inactive members			
a. Vested terminations	\$ 59,954,891	\$ 945,635,710	\$ 1,005,590,601
b. Nonvested terminations	11,797,482	253,236,430	265,033,912
c. Total	<u>\$ 71,752,373</u>	<u>\$ 1,198,872,140</u>	<u>\$ 1,270,624,513</u>
4. Total actuarial present value of future benefits	<u>\$ 9,524,085,773</u>	<u>\$ 36,901,048,778</u>	<u>\$ 46,425,134,551</u>

	Police and Firefighters June 30, 2024 (1)	All Other Employees June 30, 2024 (2)	All Employees June 30, 2024 (3)
1. Active members			
a. Service retirement benefits	\$ 4,204,810,942	\$ 16,226,987,525	\$ 20,431,798,467
b. Termination Benefits	82,386,038	734,647,600	817,033,638
c. Survivor benefits	16,837,855	134,534,005	151,371,860
d. Disability retirement benefits	39,105,378	401,946,310	441,051,688
e. Total	<u>\$ 4,343,140,213</u>	<u>\$ 17,498,115,440</u>	<u>\$ 21,841,255,653</u>
2. Retired members			
a. Service retirement	\$ 4,149,994,007	\$ 15,444,158,566	\$ 19,594,152,573
b. Disability retirement	41,679,985	335,048,849	376,728,834
c. Beneficiaries	239,170,396	1,000,671,990	1,239,842,386
d. Total	<u>\$ 4,430,844,388</u>	<u>\$ 16,779,879,405</u>	<u>\$ 21,210,723,793</u>
3. Inactive members			
a. Vested terminations	\$ 63,217,629	\$ 925,856,626	\$ 989,074,255
b. Nonvested terminations	11,297,192	230,069,871	241,367,063
c. Total	<u>\$ 74,514,821</u>	<u>\$ 1,155,926,497</u>	<u>\$ 1,230,441,318</u>
4. Total actuarial present value of future benefits	<u>\$ 8,848,499,422</u>	<u>\$ 35,433,921,342</u>	<u>\$ 44,282,420,764</u>



**TABLE 3****Analysis of Normal Cost**

	Police and Firefighters June 30, 2025 <u>(1)</u>	All Other Employees June 30, 2025 <u>(2)</u>	All Employees June 30, 2025 <u>(3)</u>
1. Normal cost as a percent of pay			
a. Service retirement benefits	24.83%	9.82%	11.48%
b. Deferred termination benefits	0.89%	0.60%	0.63%
c. Refunds	0.93%	1.46%	1.40%
d. Disability retirement benefits	0.49%	0.54%	0.54%
e. Survivor benefits	0.18%	0.11%	0.12%
f. Administrative Expenses	<u>0.40%</u>	<u>0.40%</u>	<u>0.40%</u>
g. Total	27.72%	12.93%	14.57%
2. Employee contribution rate	12.88%	6.25%	6.98%
3. Effective employer normal cost rate (Item 1g - Item 2)	14.84%	6.68%	7.59%

	Police and Firefighters June 30, 2024 <u>(1)</u>	All Other Employees June 30, 2024 <u>(2)</u>	All Employees June 30, 2024 <u>(3)</u>
1. Normal cost as a percent of pay			
a. Service retirement benefits	24.33%	9.87%	11.47%
b. Deferred termination benefits	0.88%	0.60%	0.63%
c. Refunds	0.84%	1.41%	1.35%
d. Disability retirement benefits	0.49%	0.53%	0.53%
e. Survivor benefits	0.18%	0.12%	0.13%
f. Administrative Expenses	<u>0.40%</u>	<u>0.40%</u>	<u>0.40%</u>
g. Total	27.12%	12.93%	14.51%
2. Employee contribution rate	12.82%	6.08%	6.83%
3. Effective employer normal cost rate (Item 1g - Item 2)	14.30%	6.85%	7.68%

**TABLE 4**

**Statement of Net Position  
(Assets at Market or Fair Value)**

Item	Valuation as of	
	June 30, 2025	June 30, 2024
1. Cash and cash equivalents	\$ 1,277,828,737	\$ 816,534,332
2. Receivables:		
a. Accounts receivable and others	\$ 3,647,251	\$ 3,797,764
b. Investment sale proceeds	123,112,167	118,165,686
c. Accrued income	44,979,369	42,228,081
d. Member and employer contributions	330,227,213	146,686,334
e. Subtotal	\$ 501,966,000	\$ 310,877,865
3. Investments		
a. Equity securities	\$ 5,225,471,302	\$ 5,277,362,997
b. Fixed income securities	5,844,803,600	5,199,978,914
c. Real assets	4,786,724,544	4,261,689,706
d. Alternative investments	7,497,209,137	8,027,013,307
e. Subtotal	\$ 23,354,208,583	\$ 22,766,044,924
4. Other		
a. Invested securities lending collateral	\$ 1,018,899,592	\$ 765,590,308
b. Equipment at cost, net of depreciation	1,898,766	2,954,114
c. Other assets	-	-
d. Subtotal	\$ 1,020,798,358	\$ 768,544,422
5. Total assets	\$ 26,154,801,678	\$ 24,662,001,543
6. Liabilities		
a. Accounts payable	\$ 91,490,886	\$ 92,405,819
b. Investment commitments payable	118,605,407	103,373,060
c. Securities lending collateral	1,018,899,592	765,590,308
d. Notes payable	-	-
e. Total liabilities	\$ 1,228,995,885	\$ 961,369,187
7. Total market value of assets available for benefits (Item 5 - Item 6e)	\$ 24,925,805,793	\$ 23,700,632,356

## TABLE 5

### Statement of Changes in Net Position

	Year Ending	
	June 30, 2025	June 30, 2024
1. a. Value of assets at beginning of year	\$ 23,700,632,356	\$ 22,425,384,975
b. Adjustment due to post valuation changes in ACFR assets	-	-
c. Adjusted value of assets at beginning of year	\$ 23,700,632,356	\$ 22,425,384,975
2. Revenue for the year		
a. Contributions		
i. Member contributions	\$ 371,067,993	\$ 342,066,080
ii. Employer contributions	1,479,559,382	1,396,331,977
iii. Total	\$ 1,850,627,375	\$ 1,738,398,057
b. Income		
i. Interest, dividends, and other income	\$ 821,972,097	\$ 794,784,038
ii. Investment expenses	(175,099,189)	(174,112,484)
iii. Net	\$ 646,872,908	\$ 620,671,554
c. Net realized and unrealized gains/(loss)	\$ 754,001,685	\$ 841,228,583
d. Net income/(loss)	\$ 1,400,874,593	\$ 1,461,900,137
e. Total revenue	\$ 3,251,501,968	\$ 3,200,298,194
3. Expenditures for the year		
a. Refunds	\$ 24,367,929	\$ 28,548,843
b. Benefit payments	1,977,937,411	1,878,501,292
c. Administrative and miscellaneous expenses	24,023,191	18,000,678
d. Total expenditures	\$ 2,026,328,531	\$ 1,925,050,813
4. Increase/(decrease) in net assets (Item 2e - Item 3d)	\$ 1,225,173,437	\$ 1,275,247,381
5. Value of assets at end of year (Item 1c + Item 4)	\$ 24,925,805,793	\$ 23,700,632,356

## TABLE 6

### Development of Actuarial Value of Assets

	Year Ending June 30, 2025
1. Actuarial value of assets, beginning of year	\$ 23,841,039,344
2. Net new investments	
a. Contributions	\$ 1,850,627,375
b. Benefits paid and Refunds	(2,002,305,340)
c. Administrative expenses	(24,023,191)
d. Subtotal	(175,701,156)
3. Market value of assets at end of year	\$ 24,925,805,793
4. Expected return on actuarial value of assets	\$ 1,662,723,214
5. Expected actuarial value of assets, end of year	\$ 25,328,061,402
6. Excess/(shortfall) return (Item 3-Item 5)	\$ (402,255,609)
7. Development of amounts to be recognized as of June 30, 2025:	

Fiscal Year End	Remaining Deferrals of Excess (Shortfall) of Investment Income (1)	Offsetting of Gains/(Losses) (2)	Net Deferrals Remaining (3) = (1) + (2)	Years Remaining (4)	Recognized for this valuation (5) = (3) / (4)	Remaining after this valuation (6) = (3) - (5)
2022	\$ 0	\$ 0	\$ 0	1	\$ 0	\$ 0
2023	(59,697,812)	0	(59,697,812)	2	(29,848,906)	(29,848,906)
2024	(80,709,176)	0	(80,709,176)	3	(26,903,059)	(53,806,117)
2025	(261,848,621)	0	(261,848,621)	4	(65,462,155)	(196,386,466)
Total	\$ (402,255,609)	\$ 0	\$ (402,255,609)		\$ (122,214,120)	\$ (280,041,489)

8. Actuarial value of assets as of June 30, 2025 (Item 3 - Item 7)	\$ 25,205,847,282
9. Ratio of actuarial value to market value	101.1%
10. Asset gain/(loss) for year (Item 8 - Item 5)	\$ (122,214,120)



## TABLE 7

### Estimation of Yields

	June 30, 2025 (1)	June 30, 2024 (2)
<b>A. Market value yield</b>		
1. Beginning of year market assets	\$ 23,700,632,356	\$ 22,425,384,975
2. Investment income		
a. Change in assets (Item 3 - Item 1)	\$ 1,225,173,437	\$ 1,275,247,381
b. Cash Flow	(175,701,156)	(186,652,756)
c. Total investment income based on market value (Item 2a less Item 2b)	\$ 1,400,874,593	\$ 1,461,900,137
3. End of year market assets	\$ 24,925,805,793	\$ 23,700,632,356
4. Estimated dollar weighted market value yield (net of investment and administrative expenses)	5.93%	6.55%
<b>B. Actuarial value yield</b>		
1. Beginning of year actuarial assets	\$ 23,841,039,344	\$ 22,514,931,693
2. Investment income (based on asset valuation method)		
a. Change in assets (Item 3 - Item 1)	\$ 1,364,807,938	\$ 1,326,107,651
b. Cash Flow	(175,701,156)	(186,652,756)
c. Total investment income based on market value (Item 2a less Item 2b)	\$ 1,540,509,094	\$ 1,512,760,407
3. End of year actuarial assets	\$ 25,205,847,282	\$ 23,841,039,344
4. Estimated actuarial value yield (net of investment and administrative expenses)	6.49%	6.75%

## TABLE 8

### Allocation of Cash and Investments

	<u>June 30, 2025</u>	<u>June 30, 2024</u>
	(1)	(2)
1. Cash and short-term equivalents	5.2%	3.5%
2. Fixed income securities	23.7%	22.1%
3. Equity securities	21.3%	22.3%
4. Real assets	19.4%	18.1%
5. Other	30.4%	34.0%
6. Total investments	<u>100.0%</u>	<u>100.0%</u>

## TABLE 9A

### Total Experience Gain or Loss

Item (1)	Police and Firefighters (2)	All Other Employees (3)	All Employees (4)
<b>A. Calculation of total actuarial gain or loss</b>			
1. Unfunded actuarial accrued liability (UAAL), as of June 30, 2024	\$ 2,232,674,682	\$ 11,775,803,709	\$ 14,008,478,391
2. Normal cost for the year (includes admin expense)	\$ 219,275,133	\$ 666,954,736	\$ 886,229,869
3. Less: contributions and assessments for the year	\$ (372,848,968)	\$ (1,477,778,407)	\$ (1,850,627,375)
4. Interest at 7.00%			
a. On UAAL	\$ 156,287,228	\$ 824,306,260	\$ 980,593,488
b. On normal cost	7,674,630	23,343,416	31,018,046
c. On contributions	(13,049,714)	(51,722,244)	(64,771,958)
d. Total	\$ 150,912,144	\$ 795,927,432	\$ 946,839,576
5. Expected UAAL as of June 30, 2025 (Sum of Items 1 - 4)	\$ 2,230,012,991	\$ 11,760,907,470	\$ 13,990,920,461
6. Actual UAAL as of June 30, 2025	\$ 2,433,409,190	\$ 11,976,779,781	\$ 14,410,188,971
7. Total gain/(loss) for the year (Item 5 - Item 6)	\$ (203,396,199)	\$ (215,872,311)	\$ (419,268,510)
<b>B. Source of gains and losses</b>			
8. Asset gain/(loss) for the year (Table 9b)	\$ (27,216,808)	\$ (94,997,312)	\$ (122,214,120)
9. Gain/(loss) due to change in actuarial assumptions	(133,093,285)	(36,902,479)	(169,995,764)
10. Other liability gain/(loss)	(43,086,106)	(83,972,520)	(127,058,626)
11. Change in benefit provisions	-	-	-
12. Total gain/(loss) for the year	\$ (203,396,199)	\$ (215,872,311)	\$ (419,268,510)

**TABLE 9B****Investment Experience Gain or Loss**

Item (1)	June 30, 2025 (2)	June 30, 2024 (3)
1. Actuarial assets, beginning of year	\$ 23,841,039,344	\$ 22,514,931,693
2. Total contributions during year	\$ 1,850,627,375	\$ 1,738,398,057
3. Benefits and refunds paid	\$ (2,002,305,340)	\$ (1,907,050,135)
4. Administrative expenses paid	\$ (24,023,191)	\$ (18,000,678)
5. Assumed net investment income at 7.00%		
a. Beginning of year assets	\$ 1,668,872,755	\$ 1,576,045,219
b. Contributions	64,771,958	60,843,932
c. Benefits and refunds paid	(70,080,687)	(66,746,755)
d. Administrative expenses paid	(840,812)	(630,024)
e. Total	\$ 1,662,723,214	\$ 1,569,512,372
6. Expected actuarial assets, end of year (Sum of items 1 through 5)	\$ 25,328,061,402	\$ 23,897,791,309
7. Actual actuarial assets, end of year	\$ 25,205,847,282	\$ 23,841,039,344
8. Asset gain/(loss) for year (Item 7 - Item 6)	\$ (122,214,120)	\$ (56,751,965)
9. Asset gain/(loss) as a percent of actuarial value of assets, end of year (Item 8 / Item 7)	(0.48%)	(0.24%)

## TABLE 9C

### Projection Results Based on June 30, 2025 Actuarial Valuation

Valuation as of June 30,	Employer Contribution Rate for Fiscal Year Following Valuation Date	Compensation (in Millions)	Employer Contributions (in Millions)	Actuarial Accrued Liability (AAL, in Millions)	Actuarial Value of Assets (AVA, in Millions)	Unfunded Actuarial Accrued Liability (UAAL, in Millions)	Funded Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2025	25.84%	\$ 5,404	\$ 1,397	\$ 39,616	\$ 25,206	\$ 14,410	63.6%
2026	25.82%	5,532	1,429	40,980	26,582	14,399	64.9%
2027	25.80%	5,685	1,467	42,360	28,010	14,350	66.1%
2028	25.79%	5,842	1,506	43,732	29,473	14,259	67.4%
2029	25.77%	6,006	1,548	45,098	30,976	14,122	68.7%
2030	25.75%	6,176	1,591	46,459	32,526	13,933	70.0%
2031	25.74%	6,351	1,635	47,815	34,126	13,689	71.4%
2032	25.71%	6,532	1,679	49,165	35,782	13,383	72.8%
2033	25.71%	6,717	1,727	50,509	37,498	13,010	74.2%
2034	25.71%	6,909	1,776	51,846	39,282	12,565	75.8%
2035	25.71%	7,108	1,828	53,180	41,141	12,038	77.4%
2036	25.71%	7,313	1,880	54,509	43,084	11,424	79.0%
2037	25.71%	7,525	1,935	55,834	45,118	10,716	80.8%
2038	25.71%	7,746	1,992	57,159	47,255	9,904	82.7%
2039	25.71%	7,976	2,051	58,486	49,506	8,980	84.6%
2040	25.71%	8,216	2,113	59,820	51,885	7,935	86.7%
2041	25.71%	8,467	2,177	61,168	54,410	6,758	89.0%
2042	25.71%	8,726	2,243	62,532	57,093	5,439	91.3%
2043	25.71%	8,994	2,313	63,918	59,952	3,966	93.8%
2044	25.71%	9,273	2,384	65,332	63,005	2,327	96.4%
2045	25.71%	9,561	2,458	66,777	66,268	509	99.2%
2046	25.71%	9,859	2,535	68,258	69,761	(1,503)	102.2%
2047	25.71%	10,167	2,614	69,781	73,505	(3,724)	105.3%
2048	25.71%	10,486	2,696	71,353	77,523	(6,169)	108.6%
2049	25.71%	10,815	2,781	72,979	81,836	(8,857)	112.1%
2050	25.71%	11,154	2,868	74,664	86,470	(11,806)	115.8%
2051	25.71%	11,503	2,958	76,412	91,448	(15,036)	119.7%
2052	25.71%	11,861	3,050	78,225	96,794	(18,569)	123.7%
2053	25.71%	12,231	3,145	80,108	102,535	(22,428)	128.0%
2054	25.71%	12,610	3,242	82,064	108,701	(26,638)	132.5%

**TABLE 10****Employer Covered Payroll**

	Police and Firefighters		All Other Employees		All Employees	
	March 31, 2025 (1)	March 31, 2024 (2)	March 31, 2025 (3)	March 31, 2024 (4)	March 31, 2025 (5)	March 31, 2024 (6)
State of Hawaii	\$ 24,867,317	\$ 23,876,807	\$ 3,873,923,925	\$ 3,650,856,207	\$ 3,898,791,242	\$ 3,674,733,014
City & County of Honolulu	343,007,186	323,638,244	435,796,461	402,187,451	778,803,647	725,825,695
Board of Water Supply	-	-	43,383,799	40,153,296	43,383,799	40,153,296
County of Hawaii	93,478,072	89,312,550	132,474,350	124,886,400	225,952,422	214,198,950
County of Maui	74,526,881	68,074,377	142,942,525	136,075,991	217,469,406	204,150,368
County of Kauai	30,726,720	29,803,568	71,108,763	68,044,841	101,835,483	97,848,409
Total All Employers	\$ 566,606,176	\$ 534,705,546	\$ 4,699,629,823	\$ 4,422,204,186	\$ 5,266,235,999	\$ 4,956,909,732

**TABLE 11****Schedule of Funding Progress**

Valuation Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial		Funded Ratio (2)/(3)	Annual Covered Payroll (6)	UAAL as % of Payroll (4)/(6)
			Accrued Liability (UAAL)	(3) - (2)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
June 30, 2006 *	\$ 9,529.4	\$ 14,661.4	\$ 5,132.0	65.0%	\$ 3,238.3	158.5%	
June 30, 2007 **	10,589.8	15,696.5	5,106.8	67.5%	3,507.0	145.6%	
June 30, 2008	11,381.0	16,549.1	5,168.1	68.8%	3,782.1	136.6%	
June 30, 2009	11,400.1	17,636.4	6,236.3	64.6%	4,030.1	154.7%	
June 30, 2010	11,345.6	18,483.7	7,138.1	61.4%	3,895.7	183.2%	
June 30, 2011 **	11,942.8	20,096.9	8,154.2	59.4%	3,916.0	208.2%	
June 30, 2012	12,242.5	20,683.4	8,440.9	59.2%	3,890.0	217.0%	
June 30, 2013	12,748.8	21,243.7	8,494.9	60.0%	3,906.7	217.4%	
June 30, 2014	13,641.8	22,220.1	8,578.3	61.4%	3,991.6	214.9%	
June 30, 2015**	14,463.7	23,238.4	8,774.7	62.2%	4,171.4	210.4%	
June 30, 2016**	14,998.7	27,439.2	12,440.5	54.7%	4,258.9	292.1%	
June 30, 2017	15,720.6	28,648.6	12,928.0	54.9%	4,265.0	303.1%	
June 30, 2018	16,512.7	29,917.4	13,404.7	55.2%	4,383.7	305.8%	
June 30, 2019**	17,322.2	31,396.4	14,074.3	55.2%	4,519.7	311.4%	
June 30, 2020	18,084.4	32,691.8	14,607.4	55.3%	4,630.2	315.5%	
June 30, 2021	19,909.8	34,139.2	14,229.4	58.3%	4,783.8	297.5%	
June 30, 2022**	21,317.8	34,822.8	13,504.9	61.2%	4,614.0	292.7%	
June 30, 2023	22,514.9	36,224.6	13,709.7	62.2%	4,805.3	285.3%	
June 30, 2024	23,841.0	37,849.5	14,008.5	63.0%	5,084.7	275.5%	
June 30, 2025**	25,205.8	39,616.0	14,410.2	63.6%	5,403.6	266.7%	

Note : Dollar amounts in millions.

\* Assumption changes and new Hybrid class effective June 30, 2006.

\*\* New assumption effective on valuation date.



## TABLE 12A

### Membership Data

	Police and Firefighters		All Other Employees		All Employees	
	June 30, 2025	June 30, 2024	June 30, 2025	June 30, 2024	June 30, 2025	June 30, 2024
	(1)	(2)	(3)	(4)	(5)	(6)
1. Active members						
a. Number	4,831	4,791	61,995	60,546	66,826	65,337
b. Total salary	\$ 566,606,176	\$ 534,705,546	\$ 4,699,629,823	\$ 4,422,204,186	\$ 5,266,235,999	\$ 4,956,909,732
c. Average salary	\$ 117,285	\$ 111,606	\$ 75,807	\$ 73,039	\$ 78,805	\$ 75,867
d. Average age	42.4	42.5	48.1	48.3	47.7	47.9
e. Average service	13.9	14.1	12.5	12.8	12.6	12.9
2. Inactive members						
a. Number	220	235	8,472	8,612	8,692	8,847
b. Total annual deferred benefits	\$ 5,640,898	\$ 6,055,757	\$ 108,193,318	\$ 107,356,266	\$ 113,834,216	\$ 113,412,023
c. Average annual deferred benefit	\$ 25,640	\$ 25,769	\$ 12,771	\$ 12,466	\$ 13,096	\$ 12,819
3. Service retirees						
a. Number	4,290	4,207	44,997	44,413	49,287	48,620
b. Total annual benefits	\$ 323,738,086	\$ 306,722,571	\$ 1,416,625,074	\$ 1,365,908,147	\$ 1,740,363,160	\$ 1,672,630,718
c. Average annual benefit	\$ 75,463	\$ 72,908	\$ 31,483	\$ 30,755	\$ 35,311	\$ 34,402
4. Disabled retirees						
a. Number	118	124	1,662	1,645	1,780	1,769
b. Total annual benefits	\$ 3,650,700	\$ 3,692,776	\$ 28,788,038	\$ 27,749,273	\$ 32,438,738	\$ 31,442,049
c. Average annual benefit	\$ 30,938	\$ 29,780	\$ 17,321	\$ 16,869	\$ 18,224	\$ 17,774
5. Beneficiaries						
a. Number	459	429	5,147	5,002	5,606	5,431
b. Total annual benefits	\$ 22,242,957	\$ 20,511,498	\$ 103,622,233	\$ 97,877,735	\$ 125,865,190	\$ 118,389,233
c. Average annual benefit	\$ 48,460	\$ 47,812	\$ 20,133	\$ 19,568	\$ 22,452	\$ 21,799



**TABLE 12B****Historical Summary of Active Member Data**

Year Ending June 30,	Active Members		Total Salaries		Average Salary		Average Age	Average Service
	Number	Percent Increase	Amount in \$ Millions	Percent Increase	\$ Amount	Percent Increase		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2005	63,073	0.8%	\$ 2,924.5	6.1%	\$ 46,368	5.3%	46.3	13.0
2006	64,069	1.6%	3,113.7	6.5%	48,599	4.8%	46.4	13.0
2007	65,251	1.8%	3,340.5	7.3%	51,194	5.3%	46.5	13.0
2008	66,589	2.1%	3,601.7	7.8%	54,089	5.7%	46.6	12.9
2009	67,912	2.0%	3,838.0	6.6%	56,514	4.5%	46.8	12.9
2010	65,890	-3.0%	3,713.6	-3.2%	56,360	-0.3%	47.1	13.2
2011	65,310	-0.9%	3,731.4	0.5%	57,133	1.4%	47.4	13.4
2012	65,599	0.4%	3,706.1	-0.7%	56,497	-1.1%	47.6	13.5
2013	66,226	1.0%	3,720.8	0.4%	56,184	-0.6%	47.7	13.5
2014	67,206	1.5%	3,871.0	4.0%	57,600	2.5%	47.8	13.5
2015	67,310	0.2%	3,952.6	2.1%	58,723	1.9%	47.8	13.2
2016	67,377	0.1%	4,118.4	4.2%	61,124	4.1%	47.9	13.3
2017	65,911	-2.2%	4,134.2	0.4%	62,723	2.6%	48.0	13.3
2018	66,271	0.5%	4,257.2	3.0%	64,240	2.4%	47.9	13.2
2019	66,383	0.2%	4,393.0	3.2%	66,176	3.0%	47.9	13.1
2020	66,750	0.6%	4,523.4	3.0%	67,766	2.4%	47.9	13.1
2021	65,561	-1.8%	4,622.0	2.2%	70,499	4.0%	48.0	13.2
2022	64,234	-2.0%	4,537.2	-1.8%	70,635	0.2%	48.0	13.2
2023	64,243	0.0%	4,663.5	2.8%	72,591	2.8%	48.0	13.1
2024	65,337	1.7%	4,956.9	6.3%	75,867	4.5%	47.9	12.9
2025	66,826	2.3%	5,266.2	6.2%	78,805	3.9%	47.7	12.6

**TABLE 13****History of Cash Flow**

Year Ending June 30,	Contributions			Expenditures				External Cash Flow for the Year <sup>2</sup>	Market Value of Assets	External Cash Flow as Percent of Market Value
	Employee	Employer	Total	Benefit Payments	Refunds	Administrative Expenses <sup>1</sup>	Total			
	(2)	(3)	(4)	(5)	(6)	(7)	(8)			
2009	\$184.5	\$ 578.6	\$ 763.1	\$ (839.1)	\$ (3.5)	\$ (12.3)	\$ (854.9)	\$ (91.8)	\$ 8,818.0	(1.0%)
2010	360.0	547.6	907.6	(906.4)	(7.8)	(12.2)	(926.4)	(18.8)	9,821.6	(0.2%)
2011	231.0	534.9	765.9	(960.2)	(7.9)	(13.3)	(981.4)	(215.5)	11,642.3	(1.9%)
2012	178.8	548.4	727.2	(1,015.4)	(7.2)	(11.6)	(1,034.2)	(307.0)	11,285.9	(2.7%)
2013	185.8	581.4	767.2	(1,060.6)	(7.2)	(12.3)	(1,080.1)	(312.9)	12,357.8	(2.5%)
2014	206.1	653.1	859.2	(1,122.4)	(8.5)	(12.6)	(1,143.5)	(284.3)	14,203.0	(2.0%)
2015	223.5	717.8	941.3	(1,170.7)	(10.5)	(14.0)	(1,195.2)	(253.9)	14,505.5	(1.8%)
2016	236.8	756.6	993.4	(1,232.6)	(12.9)	(14.0)	(1,259.5)	(266.1)	14,070.0	(1.9%)
2017	250.7	781.2	1,031.9	(1,306.8)	(16.3)	(15.0)	(1,338.1)	(306.2)	15,698.3	(2.0%)
2018	259.4	847.6	1,107.0	(1,395.9)	(20.8)	(15.8)	(1,432.5)	(325.5)	16,598.4	(2.0%)
2019	273.2	922.6	1,195.8	(1,469.6)	(16.5)	(13.8)	(1,499.9)	(304.1)	17,227.0	(1.8%)
2020	287.4	1,098.6	1,386.0	(1,545.6)	(22.4)	(17.8)	(1,585.8)	(199.8)	17,385.5	(1.1%)
2021	300.6	1,281.6	1,582.2	(1,651.4)	(23.6)	(19.0)	(1,694.0)	(111.8)	21,935.8	(0.5%)
2022	293.0	1,242.1	1,535.1	(1,738.8)	(24.5)	(17.5)	(1,780.8)	(245.7)	21,854.8	(1.1%)
2023	309.8	1,274.2	1,584.0	(1,795.4)	(26.4)	(18.5)	(1,840.3)	(256.3)	22,425.4	(1.1%)
2024	342.1	1,396.3	1,738.4	(1,878.5)	(28.5)	(18.0)	(1,925.0)	(186.6)	23,700.6	(0.8%)
2025	371.1	1,479.6	1,850.7	(1,977.9)	(24.4)	(24.0)	(2,026.3)	(175.6)	24,925.8	(0.7%)

Amounts in \$ millions

<sup>1</sup> Excludes investment expenses

<sup>2</sup> Column (9) = Column (4) + Column (8)



## TABLE 14

### Solvency Test

	June 30, 2025 (1)	June 30, 2024 (2)
1. Actuarial accrued liability (AAL)		
a. Active member contributions	\$ 3,681,108,372	\$ 3,437,939,005
b. Retirees and beneficiaries	21,985,426,440	21,210,723,793
c. Active and inactive members	13,949,501,441	13,200,854,937
d. Total	\$ 39,616,036,253	\$ 37,849,517,735
2. Actuarial value of assets	\$ 25,205,847,282	\$ 23,841,039,344
3. Cumulative portion of AAL covered		
a. Active member contributions	100%	100%
b. Retirees and beneficiaries	98%	96%
c. Active and inactive members	0%	0%

**TABLE 15****Highlights of Last Five Annual Actuarial Valuations  
2021 through 2025**

Item	Valuation Date: June 30				
	2021	2022	2023	2024	2025
Number of active members	65,561	64,234	64,243	65,337	66,826
Number of inactive members	9,011	9,031	8,997	8,847	8,692
Number of pensioners	47,724	48,913	49,692	50,389	51,067
Number of beneficiaries	4,894	5,077	5,281	5,431	5,606
Average monthly contributory member pension amount	\$ 3,458	\$ 3,632	\$ 3,807	\$ 3,971	\$ 4,150
Average monthly noncontributory member pension amount	\$ 1,813	\$ 1,861	\$ 1,909	\$ 1,960	\$ 2,011
Average monthly hybrid member pension amount	\$ 2,416	\$ 2,495	\$ 2,555	\$ 2,625	\$ 2,690
Average monthly beneficiary amount	\$ 1,668	\$ 1,713	\$ 1,771	\$ 1,817	\$ 1,871
Total actuarial value of assets (\$millions)	\$ 19,910	\$ 21,318	\$ 22,515	\$ 23,841	\$ 25,206
Unfunded actuarial accrued liability (\$millions)	\$ 14,229.4	\$ 13,504.9	\$ 13,709.7	\$ 14,008.5	\$ 14,410.2
Funding Period (in years) <sup>(1)</sup>	24	24	23	22	21
Item (Dollar amounts in millions)	Fiscal Year				
	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Employer contributions <sup>(2)</sup>	\$ 1,281.6	\$ 1,242.1	\$ 1,274.2	\$ 1,396.3	\$ 1,479.6

<sup>(1)</sup> Beginning with the 2011 valuation, the funding period was determined using an open group projection. Prior valuations determined the remaining amortization based on the assumption that the amortization payment would remain constant as a percentage of pay.

<sup>(2)</sup> Beginning July 1, 2019, the employer contribution rate was 36.0% for Police and Fire, 22.0% for All Other Employees. Beginning July 1, 2020, the employer contribution rate was 41.0% for Police and Fire, 24.0% for All Other Employees.

**TABLE 16****Summary of Benefit Provisions  
(For Members Hired Prior to 7/1/2012)**

	<u>Noncontributory</u>	<u>Contributory</u>	<u>Hybrid</u>
<b>Employee Contributions</b>	No employee contributions	7.8% of salary	6.0% of salary
<b>Normal Retirement</b>			
Eligibility	Age 62 and 10 years credited service; or Age 55 and 30 years credited service	Age 55 and 5 years credited service	Age 62 and 5 years credited service; or Age 55 and 30 years credited service
Benefit	1 ¼% of average final compensation times years of credited service (Average Final Compensation or AFC is an average of the highest salaries during any three years of credited service, excluding any salary paid in lieu of vacation or if ERS membership occurred prior to 1/1/71, AFC may be an average of the highest salaries during any five years of credited service including any salary paid in lieu of vacation.)	2% of average final compensation times years of credited service (Average Final Compensation or AFC is an average of the highest salaries during any three years of credited service, excluding any salary paid in lieu of vacation or if ERS membership occurred prior to 1/1/71, AFC may be an average of the highest salaries during any five years of credited service including any salary paid in lieu of vacation.)	2% of average final compensation times years of credited service, split formula for unconverted noncontributory service at 1 ¼% (Average Final Compensation or AFC is an average of the highest salaries during any three years of credited service, excluding any salary paid in lieu of vacation or if ERS membership occurred prior to 1/1/71, AFC may be an average of the highest salaries during any five years of credited service including any salary paid in lieu of vacation.)

**TABLE 16 (CONTINUED)**

	<b>Noncontributory</b>	<b>Contributory</b>	<b>Hybrid</b>
<b>Early Retirement</b>			
Eligibility	Age 55 and 20 years credited service	Any age and 25 years credited service	Age 55 with 20 years credited service
Benefit	Maximum allowance reduced 6% per year under age 62	Maximum allowance reduced 5% per year under age 55 plus 4% per year under age 50	Maximum allowance reduced 5% for each year under age 62
<b>Deferred Vesting</b>			
Eligibility	10 years credited service	5 years credited service and contributions left in ERS	5 years credited service and contributions left in ERS
Benefit	Accrued maximum allowance payable at age 65	Accrued maximum allowance payable at age 55	Accrued maximum allowance payable at age 62
<b>Annuity Savings Account</b>			
Interest	Not applicable	4.5% per annum on employee contributions and accrued interest	4.5% per annum on employee contributions and accrued interest
Eligibility	Not applicable	Requests refund and forfeits future retirement benefit	Requests refund and forfeits future retirement benefit
Benefit			
- Terminates with less than 5 years credited service	Not applicable	Return of member's contributions and accrued interest	Return of member's contributions and accrued interest
- Terminates with 5 or more years of credited service	Not applicable	Return of member's contributions and accrued interest	Return of member's Hybrid contributions and accrued interest, both times 150%. Return of non-Hybrid balance transfers and accrued interest.

**TABLE 16 (CONTINUED)**

	<b>Noncontributory</b>	<b>Contributory</b>	<b>Hybrid</b>
<b>Ordinary Disability</b>			
Eligibility	10 years credited service	10 years credited service	10 years credited service
Benefit	1 ¼% of AFC times years of credited service, unreduced for age (Minimum is 12.5% of AFC)	1 ¾% of AFC times years of credited service, unreduced for age  (Minimum is 30% of AFC)	2% of AFC times years of credited service, unreduced for age, split formula for unconverted noncontributory service at 1 ¼% (Minimum is 25% of AFC)
<b>Service-Connected Disability</b>			
Eligibility	Any age or credited service	Any age or credited service	Any age or credited service
Benefit	Accrued maximum allowance, but not less than 15% AFC.  For accidents that occur on or after July 1, 2004, lifetime pension of 35% of AFC.	Totally disabled: lifetime pension of 66 2/3% AFC plus annuity.  Occupationally disabled: same benefit (66 2/3% pension plus annuity) paid for 3 years and then pension is reduced to 33 1/3% AFC if not totally disabled.  For accidents on or after July 7, 1998, lifetime pension of 50% of AFC plus refund of member's contributions and accrued interest.	Lifetime pension of 35% of AFC plus refund of member's contributions and accrued interest.

**TABLE 16 (CONTINUED)**

	<b>Noncontributory</b>	<b>Contributory</b>	<b>Hybrid</b>
<b>Ordinary Death</b>			
Eligibility	Active employee at time of death with at least 10 years of credited service	Active employee at time of death with at least 1 year of service	Active employee at time of death with at least 5 years of service
Benefit	<p>Surviving spouse/reciprocal beneficiary and dependent children receive a benefit equal to a percentage of member's accrued maximum allowance unreduced for age; or</p> <p>Option B (100% Joint and Survivor) benefit for surviving spouse if member was eligible for retirement at time of death and a percentage of member's accrued maximum allowance unreduced for age for the dependent children</p>	<p>Lump sum payment of member's contributions and accrued interest plus a percentage of the salary earned in the 12 months preceding death; or</p> <p>Option 3 (50% Joint and Survivor) benefit if member was not eligible for retirement at the time of death, credited with 10 years of service, and one beneficiary designated (benefit calculated using the ordinary disability retirement formula); or</p> <p>Option 2 (100% Joint and Survivor) benefit if member was eligible for retirement at the time of death and one beneficiary designated</p>	<p>Return of member's Hybrid contributions and accrued interest (both times 150%) plus return of non-Hybrid balance transfers and accrued interest; or</p> <p>Option 3 (50% Joint Survivor) lifetime benefit if credited with at least 10 years of service and one beneficiary designated; or</p> <p>Option 2 (100% Joint Survivor) lifetime monthly benefit if member was eligible for service retirement at time of death, and one beneficiary designated</p>

**TABLE 16 (CONTINUED)**

	<b>Noncontributory</b>	<b>Contributory</b>	<b>Hybrid</b>
<b>Service-Connected Death</b>			
Eligibility	Any age or service	Any age or service	Any age or service
Benefit	<p>Surviving spouse/reciprocal beneficiary receives pension equal to 30% of AFC (until remarriage or re-entry into a new reciprocal beneficiary relationship); additional benefits payable to surviving dependent children (up to age 18)</p> <p>If there is no spouse/reciprocal beneficiary or dependent children, no benefit is payable.</p>	<p>Lump sum payment of member’s contributions and accrued interest, plus pension of 50% AFC to surviving spouse/reciprocal beneficiary (until remarriage or re-entry into a new reciprocal beneficiary relationship);</p> <p>If there is no surviving spouse or reciprocal beneficiary, surviving dependent children (up to age 18) or dependent parents shall be eligible for a monthly benefit.</p> <p>If there is no spouse/reciprocal beneficiary or dependent children/parents, the ordinary death benefit shall be payable to the designated beneficiary.</p>	<p>Lump sum payment of member’s contributions and accrued interest, plus pension of 50% AFC to surviving spouse/reciprocal beneficiary (until remarriage or re-entry into a new reciprocal beneficiary relationship);</p> <p>If there is no surviving spouse or reciprocal beneficiary, surviving dependent children (up to age 18) or dependent parents shall be eligible for a monthly benefit.</p> <p>If there is no spouse/reciprocal beneficiary or dependent children/parents, the ordinary death benefit shall be payable to the designated beneficiary.</p>

## TABLE 16 (CONTINUED)

For members hired after June 30, 2011, the interest crediting rate on employee contributions and accrued interest is 2.0% per annum.

The plan provisions summarized above apply to teachers and most State and County employees. Special provisions applicable to other groups of employees are outlined below:

- A. Police officers, firefighters, investigators of the Department of the Prosecuting Attorney and the Attorney General, narcotic enforcement investigators, and public safety investigators contribute 12.2% of their monthly salary to ERS instead of 7.8%. These members may retire at age 55 with 5 years of credited service or at any age with 25 years of credited service and receive a retirement benefit of 2 ½% of average final compensation (AFC) for each year of such service up to a maximum of 80% AFC, provided the last 5 years of credited service in any of these occupations.
- B. Judges, elected officials, and legislative officers may retire at age 55 with at least 5 years of credited service, or at any age with at least 10 years of credited service and receive a pension of 3 ½% of AFC for each year of such service plus an annuity from their contributions allocable to the period of such service. This benefit cannot exceed 75% of the AFC. Judges hired after June 30, 1999 require 25 years of credited service in order to retire before age 55.
- C. Sewer workers in specified classifications, water safety officers, and emergency medical technicians (EMTs) may retire at any age if they are credited with 25 years of such service with the last 5 or more years in these occupations. (The 25-year feature is phased in through 7/1/2008 for EMTs.)
- D. Sewer workers in specified classifications, water safety officers, and emergency medical technicians (EMTs) that transfer to the Hybrid class contribute 9.75% of their monthly salary to ERS. These members may retire at age 62 with 5 years of credited service or at any age if they are credited with 25 years of such service with the last 5 or more years in these occupations.

**TABLE 16 (CONTINUED)**  
**Summary of Benefit Provisions**  
**(For Members Hired After 6/30/2012)**

	<b>Contributory (for Police/Fire)</b>	<b>Contributory (for Judges/Elected Officers)</b>	<b>Hybrid</b>
<b>Employee Contributions</b>	14.2% of base pay earnings	9.8% of base pay earnings	8.0% of base pay earnings 11.75% of base pay earnings for Sewer workers, water safety officers, and emergency medical technicians (EMTs)
<b>Normal Retirement Eligibility</b>	Age 60 and 10 years credited service	Age 60 and 10 years credited service	Age 65 and 10 years credited service; or Age 60 and 30 years credited service Sewer workers, water safety officers, and EMTs may retire with 25 years credited service at age 55.
<b>Benefit</b>	2.25% of average final compensation times years of credited service. (Average final compensation or AFC is an average of the highest base pay earnings during any five years of credited service, excluding any salary paid in lieu of vacation.) Maximum is 80% of AFC.	3.0% of average final compensation times years of credited service (Average final compensation or AFC is an average of the highest base pay earnings during any five years of credited service, excluding any salary paid in lieu of vacation.) Maximum is 75% of AFC.	1.75% of average final compensation times years of credited service (Average final compensation or AFC is an average of the highest base pay earnings during any five years of credited service, excluding any salary paid in lieu of vacation.)

**TABLE 16 (CONTINUED)**

	<b>Contributory (for Police/Fire)</b>	<b>Contributory (for Judges/Elected Officers)</b>	<b>Hybrid</b>
<b>Early Retirement</b>			
Eligibility	Age 55 and 25 years credited service	Age 55 and 25 years credited service Any age with 10 years for elected officers	Age 55 with 20 years credited service Sewer workers, water safety officers, and emergency medical technicians (EMTs) may retire with 25 years credited service.
Benefit	Maximum allowance reduced 6% per year under age 60	Maximum allowance reduced 6% per year under age 60	Maximum allowance reduced 5% for each year under age 65
<b>Deferred Vesting</b>			
Eligibility	10 years credited service and contributions left in ERS	10 years credited service and contributions left in ERS	10 years credited service and contributions left in ERS
Benefit	Accrued maximum allowance payable at age 60	Accrued maximum allowance payable at age 60	Accrued maximum allowance payable at age 65
<b>Annuity Savings Account</b>			
Interest	2.0% per annum	2.0% per annum	2.0% per annum
Eligibility	Requests refund and forfeits future retirement benefit	Requests refund and forfeits future retirement benefit	Requests refund and forfeits future retirement benefit
Benefit			
- Terminates with less than 10 years credited service	Return of member's contributions and accrued interest	Return of member's contributions and accrued interest	Return of member's contributions and accrued interest
- Terminates with 10 or more years of credited service	Return of member's contributions and accrued interest	Return of member's contributions and accrued interest	Return of member's contributions and accrued interest, both times 120%

**TABLE 16 (CONTINUED)**

	<b>Contributory (for Police/Fire)</b>	<b>Contributory (for Judges/Elected Officers)</b>	<b>Hybrid</b>
<b>Ordinary Disability</b>			
Eligibility	10 years credited service	10 years credited service	10 years credited service
Benefit	1 $\frac{3}{4}$ % of AFC times years of credited service, unreduced for age (Minimum is 30% of AFC)	3.0% of AFC times years of credited service, unreduced for age (Minimum is 30% of AFC)	1 $\frac{3}{4}$ % of AFC times years of credited service, unreduced for age (Minimum is 25% of AFC)
<b>Service-Connected Disability</b>			
Eligibility	Any age or credited service	Any age or credited service	Any age or credited service
Benefit	Lifetime pension of 50% of AFC plus refund of member's contributions and accrued interest.	Lifetime pension of 50% of AFC plus refund of member's contributions and accrued interest.	Lifetime pension of 35% of AFC plus refund of member's contributions and accrued interest.

**TABLE 16 (CONTINUED)**

	<b>Contributory (for Police/Fire)</b>	<b>Contributory (for Judges/Elected Officers)</b>	<b>Hybrid</b>
<b>Ordinary Death</b>			
Eligibility	Active employee at time of death with at least 1 years of credited service	Active employee at time of death with at least 1 years of credited service	Active employee at time of death with at least 10 years of service
Benefit	<p>Lump sum payment of member’s contributions and accrued interest plus a percentage of the salary earned in the 12 months preceding death; or</p> <p>Option 3 (50% Joint Survivor) lifetime benefit if credited with at least 10 years of service and one beneficiary designated; or</p> <p>Option 2 (100% Joint Survivor) lifetime monthly benefit if member was eligible for service retirement at time of death, and one beneficiary designated</p>	<p>Lump sum payment of member’s contributions and accrued interest plus a percentage of the salary earned in the 12 months preceding death; or</p> <p>Option 3 (50% Joint Survivor) lifetime benefit if credited with at least 10 years of service and one beneficiary designated; or</p> <p>Option 2 (100% Joint Survivor) lifetime monthly benefit if member was eligible for service retirement at time of death, and one beneficiary designated</p>	<p>Return of member’s Hybrid contributions and interest; or</p> <p>Option 3 (50% Joint Survivor) lifetime benefit if credited with at least 10 years of service and one beneficiary designated; or</p> <p>Option 2 (100% Joint Survivor) lifetime monthly benefit if member was eligible for service retirement at time of death, and one beneficiary designated</p>

**TABLE 16 (CONTINUED)**

	<b>Contributory (for Police/Fire)</b>	<b>Contributory (for Judges/Elected Officers)</b>	<b>Hybrid</b>
<b>Service-Connected Death</b>			
Eligibility	Any age or service	Any age or service	Any age or service
Benefit	<p>Same for all members.</p> <p>Lump sum payment of member’s contributions and interest, plus pension of 50% AFC to surviving spouse/reciprocal beneficiary (until remarriage or re-entry into a new reciprocal beneficiary relationship);</p> <p>If there is no surviving spouse or reciprocal beneficiary, surviving dependent children (up to age 18) or dependent parents shall be eligible for a monthly benefit.</p> <p>If there is no spouse/reciprocal beneficiary or dependent children/parents, the ordinary death benefit shall be payable to the designated beneficiary.</p>		

## TABLE 16 (CONTINUED)

### Post Retirement Benefit

Each retiree's original retirement allowance is increased by 1 ½% (if their membership date is after June 30, 2012) or 2 ½% (if their membership date is before July 1, 2012) on each July 1 beginning the calendar year after retirement. This cumulative benefit is not compounded.

### Retirement Options

#### Contributory or Hybrid Member

**Maximum Allowance:** The member receives a lifetime maximum allowance and at death the difference between the value of the member's contributions at the time of retirement and the retirement allowance paid prior to death is paid to the designated beneficiary(ies) or estate.

**Option One:** The member receives a reduced lifetime allowance based on age and at death, the difference between the initial insurance reserve and the retirement allowance paid prior to death is paid to the designated beneficiary(ies) or estate.

**Option Two (100% Joint and Survivor with Pop-Up):** The member receives a reduced lifetime allowance based on ages of both the member and the sole beneficiary and at death of the member; the same allowance is paid to the designated beneficiary for life. Should the designated beneficiary predecease the retiree, another beneficiary cannot be named, the benefit will revert back to the Maximum Allowance, and all payments will cease at the retiree's death.

**Option Three (50% Joint and Survivor with Pop-Up):** This allowance is similar to Option Two. The member receives a reduced lifetime allowance which is higher than Option Two and is based on ages of both the member and the sole beneficiary; however, at death of the member one-half of the allowance is paid to the designated beneficiary for life. Like Option Two, should the designated beneficiary predecease the retiree, another beneficiary cannot be named, the benefit will revert back to the Maximum Allowance, and all payments will cease at the retiree's death.

**Option Four:** This option allows the member to devise an allowance that will provide a benefit according to the member's specifications. It requires certification by the Actuary and approval of the Board of Trustees. The following Option Four allowances have been approved:

Combination of Options Five and Maximum Allowance: The member receives a reduced lifetime allowance and is allowed to withdraw the pre-1987 nontaxable contribution, 50% of accumulated contributions, or 75% of accumulated contributions (Hybrid class members are not allowed the 75% option); at death, the difference between the value of the member's contributions at the time of retirement and the retirement allowance paid prior to death is paid to the designated beneficiary(ies) or estate.

Combination of Options Five and One: The member receives a reduced lifetime allowance and is allowed to withdraw the pre-1987 nontaxable contributions, 50% of accumulated contributions, or 75% of accumulated contributions (Hybrid class members are not allowed the 75% option); at death, the difference between the initial insurance reserve and the retirement allowance paid prior to death is paid to the designated beneficiary(ies) or estate.



## TABLE 16 (CONTINUED)

Combination of Options Five and Two: The member receives a reduced lifetime allowance based on ages of both member and the sole beneficiary, and is allowed to withdraw the pre-1987 nontaxable contributions, 50% of accumulated contributions, or 75% of accumulated contributions (Hybrid class members are not allowed the 75% option); at death of the member, the same allowance is paid to the designated beneficiary for life. As in the case of Option Two, should the designated beneficiary predecease the retiree, another beneficiary cannot be named, the benefit will revert back to the Maximum Allowance (as adjusted for the contribution withdrawal), and all payments will cease at the retiree's death.

Combination of Options Five and Three: The member receives a reduced lifetime allowance based on ages of both member and the sole beneficiary, and is allowed to withdraw the pre-1987 nontaxable contributions, 50% of accumulated contributions, or 75% of accumulated contributions (Hybrid class members are not allowed the 75% option); at death of the member, one-half of the allowance is paid to the designated beneficiary for life. As in the case of Option Three, should the designated beneficiary predecease the retiree, another beneficiary cannot be named, the benefit will revert back to the Maximum Allowance (as adjusted for the contribution withdrawal), and all payments will cease at the retiree's death.

**Option Five:** The member receives a reduced lifetime allowance and is allowed to withdraw all accumulated contributions; at death, the retiree is entitled to the pension for the entire month that death occurs.

Option Four and Option Five are restricted to those members with at least ten years of credited service excluding unused sick leave credit.

Regardless of the option selected, should death occur during the first year of retirement, the designated beneficiary may elect to receive benefits as if death had occurred immediately prior to retirement in lieu of the death benefits described above.

### **Noncontributory Member**

**Maximum Allowance:** The member receives a lifetime pension and at death, the retiree is entitled to the pension for the entire month that death occurs.

**Option A (50% Joint and Survivor with Pop-Up):** The member receives a reduced lifetime pension and at death of the member, one-half of the pension is paid to the sole designated beneficiary for life. Should the designated beneficiary predecease the retiree, another beneficiary cannot be named, the benefit will revert back to the Maximum Allowance, and all payments will cease at the retiree's death.

**Option B (100% Joint and Survivor with Pop-up):** The member receives a reduced lifetime pension and at death of the member, the same pension is paid to the sole designated beneficiary for life. Like Option A, should the designated beneficiary predecease the retiree, another beneficiary cannot be named, the benefit will revert back to the Maximum Allowance, and all payments will cease at the retiree's death.

**Option C (Ten-Year Guarantee):** The member receives a reduced lifetime pension. Should death occur within ten years of retirement, the same pension will be paid to the designated beneficiary for the balance of the ten-year period. Should the designated beneficiary predecease the retiree, another beneficiary can be named.

Regardless of the option selected, should death occur during the first year of retirement, the designated beneficiary may elect to receive benefits as if death had occurred immediately prior to retirement in lieu of the death benefits described above.



## TABLE 17

### Summary of Plan Changes

#### **Act 65, effective July 1, 1999**

Requires judges who enter or re-enter service after June 30, 1999 to be at least 55 years old and five years of service or have 25 years of service to retire.

#### **Act 100, effective June 30, 1999**

Uses actuarial investment earnings in excess of a ten percent (10%) actuarial investment yield rate to reduce the employer's contribution requirements by \$147.0 million and \$50.6 million for fiscal years ending June 30, 2000 and 2001, respectively.

#### **Act 284, effective June 30, 2001**

Provide an increase in pension benefits for current retirees with military service who retired prior to July 2, 1989. A retirant who rendered honorable active military service could be granted up to 4 years of military service credits based upon his/her years of credited service under ERS, not to exceed his/her actual years of military service. The years of military service credits granted are based on the following schedule:

- 0 years for retirants with less than 8 years of credited service
- Up to 2 years of retirants with 8 years or more of credited service
- Up to 3 years of retirants with 20 years or more of credited service
- Up to 4 years of retirants with 25 years or more of credited service

For each year of military service credits granted on the schedule above, the retirant will be provided a \$36.00 increase in his/her monthly pension or retirement allowance.

#### **Act 199, effective June 30, 2003**

Emergency Medical Technicians (EMTs) are allowed to retire with an unreduced benefit after 25 years of service regardless of age, of which the last five or more years prior to retirement must be in that capacity. This feature is phased in one year at a time, July 1, 2003 through June 30, 2008.

#### **Act 177, effective July 1, 2004**

This Act allows police officers with a permanent service-connected disability to retain the 2-1/2% benefit multiplier for each year of service as a police officer.

#### **Act 181, effective July 1, 2004**

This Act establishes fixed employer contribution rates as a percentage of compensation effective July 1, 2005. Employers will contribute 15.75% for their police officers and firefighters and 13.75% for other employees.



## TABLE 17 (CONTINUED)

### **Act 183, effective July 1, 2004**

This Act amends ERS's statutes to comply with the federal tax limits on compensation retroactive to July 1, 1996.

### **Act 56, effective December 1, 2004**

This Act amends ERS's statutes to allow the automatic cost-of-living-adjustment to be reflected when determining actuarial equivalent optional forms of payment.

### **Act 256, effective July 5, 2007**

Legislation was enacted to remove the statutory salary increase assumption from the statutes and to grant ERS's Board of Trustees the authority to set the salary increase assumption. As a result of this legislation, the Board has adopted effective with this valuation the salary increase assumption recommended by GRS as a result of the Experience Study performed in 2006.

Legislation was also enacted to increase the employer contribution rates to ERS. Effective July 1, 2008, the employer contribution rate for Police and Fire employees will increase from 15.75% to 19.70% and the rate for All Other employees will increase from 13.75% to 15.00%.

### **Act 163, effective June 23, 2011**

Legislation was enacted that increased the future employer contribution rates to ERS. Employers of Police and Fire employees will contribute 22% of pay in FY 2013, 23% in FY 2014, 24% in FY 2015, and 25% in FY 2016 and beyond. Employers of All Other Employees will contribute 15.5% of pay in FY 2013, 16.0% in FY 2014, 16.5% in FY 2015, and 17.0% in FY 2016 and beyond.



## TABLE 17 (CONTINUED)

Legislation was enacted that made numerous changes to the benefits and member contribution rates for employees hired after June 30, 2012. Key changes are shown below:

Benefit Provision	Police & Fire Employees	All Other Employees
Benefit Multiplier	2.25%	1.75%
Normal Retirement	Age 55 with 25 years of service, or age 60 with 10 years of service	Age 60 with 30 years of service, or age 65 with 10 years of service
Post-Retirement Increase	1.5%	1.5%
Hybrid Match	N/A	120%
Average Final Compensation	Highest 5 annual base salaries	Highest 5 annual base salaries
Eligibility for Deferred Benefit	10 years of service	10 years of service
Member Contribution Rate	14.20%	8.00%

Similar changes were also made to the benefits of Judges, Legislative Officers, etc.

Similar changes were also made to those employees in the All Other Employees group who are eligible to retire at 25 years of service including the addition of a minimum age requirement (55).

Finally, legislation was enacted that set the investment return assumption for the June 30, 2011 valuation at 7.75% (the rate recommended in the Experience Study presented to the Board in December of 2010). In addition, the legislation granted ERS's Board the authority to set this assumption for valuations after 2011.

### **Act 152, effective June 26, 2012**

Legislation was enacted to eliminate most types of non-base pay from the definition of compensation for employees hired after June 30, 2012. For the impacted employees, non-base pay compensation will be excluded in determining both the contributions made by and on behalf of these employees and the benefits they will earn in the System.

### **Act 153, effective June 26, 2012**

Legislation was enacted to require employers to pay additional contributions if a retiring employee, who was first employed prior to July 1, 2012 and who was last employed by the employer, has significant non-base pay increases included in their average final compensation. The additional contribution is equal to the actuarial present value of the additional benefits earned due to the "excessive" non-base pay increases.

## TABLE 17 (CONTINUED)

### **Act 017, effective July 1, 2017**

Legislation was enacted that increased the future employer contribution rates to ERS. Employers of Police and Fire employees will contribute 28% of pay in FY 2018, 31% in FY 2019, 36% in FY 2020, and 41% in FY 2021 and beyond. Employers of All Other Employees will contribute 18% of pay in FY 2018, 19% in FY 2019, 22% in FY 2020, and 24% in FY 2021 and beyond.

### **Act 192, effective June 30, 2024**

Legislation was enacted by the 2024 Legislature that set the maximum funding period to 25 years for the June 30, 2024 valuation. Furthermore, the funding period will decrease by one year each year in the future until the maximum funding period is 20 years where it will remain for future years. If the maximum funding period is exceeded then the contribution rates may be increased to bring the funding period down to the maximum funding period.

## TABLE 18

### Summary of Actuarial Methods and Assumptions

Basis for assumption setting: The actuarial assumptions were adopted by the Board on September 8, 2025. Rationale for the recommendations are in the most recent experience study dated August 5, 2025.

I. Valuation Date

The valuation date is June 30th of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

II. Actuarial Cost Method

The normal cost and actuarial accrued liability are determined using the Entry Age Actuarial Cost Method. The actuarial accrued liability is assigned to years prior to the valuation, and the normal cost is assigned to the year following the valuation. The remaining costs are assigned to future years. The normal cost and accrued liability are determined on an individual basis.

The normal cost is the level percentage of payroll contribution required to accumulate the needed funds to pay all expected benefits. This percentage of payroll is then applied to the total compensation for the prior year for all active members, and is then adjusted for the payroll growth assumption.

The actuarial accrued liability is the difference between the total present value of future benefits and the actuarial present value of future normal costs. The unfunded actuarial accrued liability (UAAL) is the excess of the actuarial accrued liability over the actuarial value of assets.

III. Funding of Unfunded Actuarial Accrued Liability

Since the State statutes governing the System establish the employee and employer contribution rates, the actuarial valuation determines the number of years required to amortize (or fund) the UAAL. The new tier of benefits for employees hired after June 30, 2012, results in a pattern of decreasing average normal costs for the plan for many years into the future. Since the contribution rates are fixed, the available contribution rate to amortize the UAAL increases over time as the NC% decreases. Hence, an open group projection of liabilities and assets is used to determine the length of time until the UAAL is eliminated. The open group projection assumed that the number of active members would remain static (i.e. each active employee who leaves employment due to termination, retirement, death or disability, would be replaced by exactly one new employee.

Because of this methodology for determining the funding period, any change in the unfunded actuarial accrued liability due to (i) actuarial gains and losses, (ii) changes in actuarial assumptions, or (iii) amendments, affects the funding period.

Please see Section V of this table for a description of the new entrant profile used in the open group projection.

## TABLE 18 (CONTINUED)

### IV. Actuarial Value of Assets

The actuarial value of assets is based on the market value of assets with a four-year phase-in of actual investment return in excess of/(less than) expected investment income. Offsetting unrecognized gains and losses are immediately recognized, with the shortest remaining bases recognized first and the net remaining bases continue to be recognized on their original timeframe. The expected actuarial value of assets is calculated net of investment expenses, and the expected investment return is equal to the assumed investment return rate multiplied by the prior year's actuarial value of assets, adjusted for contributions, benefits paid, and refunds.

### V. New Entrant Profile

For the purposes of determining the funding period, an open group projection is used which replaces on a one-to-one basis each active member who leaves employment with an average new hire. The average new hire is determined based on a new entrant profile, which is created from the valuation data by determining the entry age and entry pay for anyone with seven or less years of service as of the valuation date. Each group of new hires' salaries is assumed to grow at the General Wage Inflation over the salaries of the previous year's group.

The new entrant profile for members assumed to be hired during the year following the valuation date for the Police and Fire Employees and the All Other Employees are shown in the table below.

New Entrant Profile for Police & Fire Employees		
Entry Age	# of Employees	Average Salary
15-19	4	\$63,590
20-24	311	73,109
25-29	410	71,658
30-34	288	71,234
35-39	126	73,111
40-44	45	71,782
45-49	20	72,607
50-54	7	98,965
55-59	10	84,513
60+	0	0
Total	1,221	72,333

It is assumed that 90% of new hires will be male.

**TABLE 18 (CONTINUED)**

New Entrant Profile for All Other Employees		
Entry Age	# of Employees	Average Salary
15-19	29	\$45,599
20-24	1,899	54,645
25-29	3,564	57,420
30-34	3,089	59,921
35-39	2,644	61,384
40-44	2,377	61,928
45-49	1,948	60,178
50-54	1,618	61,936
55-59	1,308	60,788
60-64	686	62,895
65+	101	62,361
Total	19,263	59,738

It is assumed that 40% of new hires will be male and Teachers replace Teachers and Non-Teachers replace Non-Teachers

VI. Actuarial Assumptions

A. Economic Assumptions

1. Investment return: 7.00% per year, compounded annually, composed of an assumed 2.50% inflation rate and a 4.50% net real rate of return (net of investment expenses).
2. General Wage Inflation: (used to index each year's group of new entrants in the open group projection) 3.50% per annum for Police and Fire Employees and 3.00% per annum for General Employees and Teachers.

## TABLE 18 (CONTINUED)

3. Salary increase rates: As shown below

Years of Service	General Employees		Teachers	
	Service-Related Component	Total Rate Including 2.50% Inflation Component and 1.25% Productivity Component	Service-Related Component	Total Rate Including 2.50% Inflation Component and 1.35% Productivity Component
1	3.00%	6.75%	3.00%	6.85%
2	3.00%	6.75%	3.00%	6.85%
3	2.00%	5.75%	2.00%	5.85%
4	1.50%	5.25%	1.50%	5.35%
5	1.50%	5.25%	1.50%	5.35%
6	1.25%	5.00%	1.25%	5.10%
7	1.25%	5.00%	1.25%	5.10%
8	1.00%	4.75%	1.00%	4.85%
9	1.00%	4.75%	1.00%	4.85%
10	1.00%	4.75%	1.00%	4.85%
11	0.75%	4.50%	0.75%	4.60%
12	0.75%	4.50%	0.75%	4.60%
13	0.50%	4.25%	0.50%	4.35%
14	0.50%	4.25%	0.50%	4.35%
15	0.50%	4.25%	0.50%	4.35%
16	0.50%	4.25%	0.50%	4.35%
17	0.50%	4.25%	0.50%	4.35%
18	0.50%	4.25%	0.50%	4.35%
19	0.50%	4.25%	0.50%	4.35%
20	0.25%	4.00%	0.25%	4.10%
21	0.25%	4.00%	0.25%	4.10%
22	0.25%	4.00%	0.25%	4.10%
23	0.25%	4.00%	0.25%	4.10%
24	0.25%	4.00%	0.25%	4.10%
25 or more	0.00%	3.75%	0.00%	3.85%

## TABLE 18 (CONTINUED)

3. Salary increase rates (continued):

Police & Fire		
Years of Service	Service-Related Component	Total Annual Rate of Increase Including 2.50% Inflation Component and 2.50% General Increase Rate
1-10	0.85%	5.85%
11-20	0.85%	5.85%
21-30	0.85%	5.85%
31 or more	0.00%	5.00%

Salary increases are assumed to occur once a year, on July 1. Therefore the pay used for the period between the valuation date and the first anniversary of the valuation date is equal to the reported pay for the prior year, annualized if necessary, and then increased by the salary increase assumption. To adjust the pays received as of March 31<sup>st</sup> to the June 30<sup>th</sup> valuation date, the reported pay for each member is increased by 1%.

## TABLE 18 (CONTINUED)

### B. Demographic Assumptions

#### 1. Mortality rates:

Active Members: Multiples of the Pub-2016, Employee Tables for active employees based on the occupation of the member as follows:

Type	General Employees		Teachers		Police & Fire	
	Male	Female	Male	Female	Male	Female
Ordinary	95%		95%		80%	
% of Ordinary	41%		52%		24%	
Choosing Annuity						
Duty Related	5%		5%		20%	

Healthy Retirees: The 2022 Public Retirees of Hawaii mortality tables. The rates are projected on a fully generational basis by Scale MP from the year 2022 (with immediate convergence) and with multiplier and setbacks based on plan and group experience. The following are sample rates of the base table with the corresponding multipliers:

#### Healthy Annuitant Mortality Rates Before Projection (Multiplier Added)

Age	General Employees		Teachers		Police & Fire	
	Male	Female	Male	Female	Male	Female
50	0.2094%	0.1276%	0.1698%	0.0951%	0.2344%	0.1130%
55	0.3215%	0.1687%	0.2883%	0.1596%	0.3391%	0.1633%
60	0.5570%	0.3095%	0.4672%	0.2467%	0.6090%	0.2799%
65	0.8041%	0.4488%	0.7256%	0.4063%	0.8386%	0.4283%
70	1.2621%	0.7066%	1.0762%	0.6015%	1.3768%	0.6565%
75	2.0700%	1.0964%	1.7879%	0.9358%	2.2442%	1.0121%
80	3.5996%	2.1275%	3.0429%	1.6565%	3.9844%	1.8863%
85	6.5891%	4.1569%	5.5564%	3.2698%	7.2903%	3.6977%
90	11.9340%	8.3647%	10.1056%	6.5007%	13.1174%	7.3991%
Multiplier	102%	98%	97%	101%	100%	100%
Setback	0	-1	1	1	-1	0

## TABLE 18 (CONTINUED)

The following table provides the life expectancy for individuals retiring in future years based on the assumption with full generational projection:

<u>Life Expectancy for an Age 65 Retiree in Years</u>					
	Year of Retirement				
Gender	2025	2030	2035	2040	2045
<u>General Retirees</u>					
Male	22.8	23.2	23.5	23.9	24.2
Female	26.3	26.6	26.9	27.2	27.5
<u>Teachers</u>					
Male	24.1	24.5	24.9	25.2	25.5
Female	28.0	28.3	28.6	28.9	29.2
<u>Police &amp; Fire</u>					
Male	21.8	22.1	22.4	22.8	23.1
Female	27.1	27.4	27.7	28.0	28.3

Disabled retirees: Base Table for healthy retiree's occupation, set forward 3 years, generational projection using the MP projection table from the year 2022 with immediate convergence. Minimum mortality rate of 3.5% for males and 2.5% for females.

2. Disability rates – The assumed total disability rates at select ages are multiples of the client specific table that follows:

Age	Male & Female
25	0.000%
30	0.001%
35	0.008%
40	0.026%
45	0.064%
50	0.146%
55	0.198%
60	0.212%

Note: The disability rates project the percentage of employees at each age that is assumed to become disabled before retiring. Multiples of the rates above are assumed to be ordinary disability or accidental disability, and varies by employee group as follows:

	General Employees	Teachers	Police & Fire
Type	Male & Female	Male & Female	Male & Female
Ordinary	190%	90%	50%
Accidental	65%	15%	120%

## TABLE 18 (CONTINUED)

3. Termination Rates - Same male and female rates, based solely on the member's service. Rates reflect terminations for causes other than death, disability or retirement. Employees eligible for retirement are assumed to have no probability of termination. Sample rates are shown below:

Expected Terminations per 1000 Lives (Male & Female)			
Years of Service	General Employees	Teachers	Police & Fire
0	180.7	0.0	154.0
1	145.0	199.9	57.6
2	116.5	166.9	45.4
3	93.8	136.1	38.3
4	76.3	109.3	33.2
5	62.9	87.2	29.3
6	52.9	70.1	26.1
7	45.6	57.9	23.4
8	40.4	49.9	21.0
9	36.5	44.9	18.9
10	33.5	41.4	17.2
11	30.9	36.2	11.7
12	28.5	32.7	11.0
13	23.1	29.4	10.3
14	20.2	26.4	9.7
15	18.1	23.4	8.2
16	16.4	20.8	7.6
17	15.1	18.3	7.0
18	14.0	16.0	6.4
19	13.1	13.7	5.8
20	11.9	11.7	5.2
21	11.1	10.0	4.6
22	10.2	8.4	4.0
23	9.3	7.0	3.4
24	8.3	5.8	2.8
25	7.1	4.8	0.0
26	6.0	4.0	0.0
27	4.7	3.3	0.0
28	3.5	2.8	0.0
29	2.4	2.6	0.0
30 and more	0.0	0.0	0.0

## TABLE 18 (CONTINUED)

4. Retirement Rates – separate male and female rates, based on age. Sample rates are shown below:

### Contributory Members

Expected Retirements per 100 Lives									
General Employees					Teachers				Police & Fire
Unreduced		Reduced			Unreduced		Reduced		Unreduced
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male & Female
45	0	0	0	0	0	0	0	0	17.5
46	0	0	0	0	0	0	0	0	17.5
47	0	0	0	0	0	0	0	0	17.5
48	0	0	0	0	0	0	0	0	17.5
49	0	0	0	0	0	0	0	0	17.5
50	0	0	0	0	0	0	1	0	20.0
51	0	0	2	1	0	0	1	1	20.0
52	0	0	2	1	0	0	1	1	20.0
53	0	0	2	1	0	0	2	2	20.0
54	0	0	3	2	0	0	3	3	20.0
55	25	20			20	18			22.0
56	25	20			15	16			22.0
57	16	13			15	16			22.0
58	16	13			15	16			24.0
59	13	13			15	16			27.0
60	13	15			14	18			30.0
61	13	15			14	18			30.0
62	28	25			14	25			30.0
63	20	20			14	20			30.0
64	20	20			14	15			30.0
65	20	20			20	25			100.0
66	18	20			15	25			100.0
67	18	20			15	20			100.0
68	18	20			15	20			100.0
69	18	20			15	20			100.0
70	20	20			15	20			100.0
71	20	20			15	20			100.0
72	20	20			15	20			100.0
73	20	20			15	20			100.0
74	20	20			15	20			100.0
75	100	100			100	100			100.0

For members hired after June 30, 2012 the retirement rates for members once they reach unreduced retirement eligibility are increased 10% (multiplicative) for each year the member is beyond the age the member would have been eligible under the provisions for members hired prior to June 30, 2012.

## TABLE 18 (CONTINUED)

### Noncontributory Members

Expected Retirements per 100 Lives										
	General Employees						Teachers			
	Unreduced		25 & Out		Reduced		Unreduced		Reduced	
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
55	20	12	15	11	2	2	12	13	1	2
56	18	12	23	11	2	2	12	7	1	2
57	13	12	18	11	2	2	12	8	1	2
58	10	12	15	11	2	2	12	10	2	2
59	10	12	15	11	2	2	12	20	3	3
60	10	14	15	14	4	4	12	11	5	5
61	11	18	16	18	4	4	12	16	7	5
62	20	20	25	20			16	25		
63	20	20	25	20			12	20		
64	12	20	17	20			10	15		
65	14	20	19	20			20	25		
66	20	20	25	20			15	25		
67	20	20	25	20			15	25		
68	20	20	25	20			15	25		
69	20	20	25	20			15	25		
70	20	20	25	20			15	25		
71	20	20	25	20			15	25		
72	20	20	25	20			15	25		
73	20	20	25	20			15	25		
74	20	20	25	20			15	25		
75	100	100	100	100			100	100		

Note: Retirement rates for the 25&out group prior to age 55 are 15% for male and 11% for female.

## TABLE 18 (CONTINUED)

Hybrid Members

Expected Retirements per 100 Lives								
General Employees					Teachers			
Age	Unreduced		Reduced		Unreduced		Reduced	
	Male	Female	Male	Female	Male	Female	Male	Female
55	20	18	3	3	20	18	2	2
56	15	13	3	3	15	12	2	2
57	15	13	3	3	15	12	2	2
58	15	13	3	3	15	14	2	2
59	18	13	3	3	15	14	3	3
60	20	13	5	5	15	14	3	5
61	16	15	5	5	15	18	3	10
62	20	20			15	25		
63	16	20			15	20		
64	16	20			15	20		
65	20	20			20	25		
66	20	20			15	25		
67	20	20			15	25		
68	20	20			15	25		
69	20	20			15	25		
70	20	20			15	25		
71	20	20			15	25		
72	20	20			15	25		
73	20	20			15	25		
74	20	20			15	25		
75	100	100			100	100		

Note: For the 25&out group with membership dates before July 1, 2012, the retirement rates prior to age 55 are 10% for both male and female.

For members hired after June 30, 2012 the retirement rates for members once they reach unreduced retirement eligibility are increased 10% (multiplicative) for each year the member is beyond the age the member would have been eligible under the Hybrid provisions for members hired prior to June 30, 2012.

## TABLE 18 (CONTINUED)

### C. Other Assumptions

1. Projected payroll for contributions: The aggregate projected payroll for the fiscal year following the valuation date is calculated taking the lesser of the actual payroll paid during the previous fiscal year and the current annualized pay on the valuation date and increasing this number by the payroll growth rate.
2. Age difference: Male members are assumed to be four years older than their spouses, and female members are assumed to be four years younger than their spouses.
3. Marriage Assumption: While not implicitly used in the valuation, 100% of active members are assumed to be married when setting other benefit election and eligibility assumptions.
4. Percent electing annuity on death for contributory participants (when eligible): All of the spouses of married participants who die after becoming eligible for a retirement benefit are assumed to elect an annuity or a refund, whichever is more valuable at time of participant's death.
5. Payment Option: Future healthy retirees are assumed to choose the life only payment option. 50% of future disabled retirees are assumed to choose the 100% Joint and Survivor option.
6. Percent electing deferred termination benefit: vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.
7. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt when eligible for early retirement.
8. Administrative expenses: Administrative expenses are assumed to be 0.40% of active member payroll.
9. Reemployment, purchase of service, transfers: No recognition is made of (i) future member reimbursements upon reemployment, (ii) future purchase of additional service, or (iii) special transfer provisions.
10. Sick Leave: It is assumed that all members will have their benefit service increased by sick leave and the following loads will be applied by group:

General Employees	3.25%
Teachers	3.85%
Police and Fire	5.10%

## TABLE 18 (CONTINUED)

11. COLA delay: It is assumed that the first COLA will be received 9 months after retirement. Teachers are assumed to receive COLA 12 months after retirement,
12. There will be no recoveries once disabled.
13. No surviving spouse will remarry and there will be no children's benefit.
14. Pay increase timing: Beginning of (fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
15. Decrement timing: Retirements and terminations of Teachers are assumed to occur at the beginning of the year. All other decrements are assumed to occur mid-year.
16. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
17. Decrement relativity: Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
18. Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
19. Benefit Service: All members are assumed to accrue 1 year of service each year. Exact fractional service is used to determine the amount of benefit payable.
20. Police officers, firefighters, investigators of the Department of the Prosecuting Attorney and the Attorney General, narcotic enforcement investigators, and public safety investigators hired prior to June 30, 2012 are not assumed to retire at age 55 unless they have 10 years of service.

### VII. Participant Data

Participant data was supplied in electronic files for (i) active members, (ii) inactive vested members, who are entitled to a future deferred benefit, (iii) members and beneficiaries receiving benefits.

Salary supplied for the current year was based on the actual pensionable earnings for the 12-month period ending the March preceding the valuation date. This pay was increased by 1% to reflect the three-month difference from March to June. For members with less than one year of service, the base pay rate provided in the data was used

## TABLE 18 (CONTINUED)

### VIII. Dates of Adoption of Assumptions and Methods

The actuarial assumptions and methods were adopted by the Board of Trustees on September 8, 2025 as recommended by Gabriel, Roeder, Smith & Company (GRS).

### IX. Changes in Assumptions and Methods since Prior Valuation

The actuarial assumptions have been revised since the prior valuation to reflect the most recent experience study. Please see our Experience Study report dated August 5, 2025 for a more extensive discussion of the actuarial assumptions and the rationale for the current assumptions.

### X. Temporary Hazard Pay (THP)

The census data included THP for those members who received at least one THP payment in the 12-month period ending March 31, 2025. A separate data file was received that identified the amount of the THP by individual. Since the THP payments are attributable to pay for fiscal years 2020-2022, we estimated the impact on the current final average earnings for these individuals and incorporated that into the actuarial valuation. For projecting future contributory payroll, the THP payments were excluded.

THP payments were made to many individuals after the end of the fiscal year (June 30, 2025). Since the contributions associated with these payments were included as accrued contributions in the financial statements of the System, we included an offsetting liability for these accrued contributions. The actual impact on the liabilities will be reflected when the census data reflects the payments. Note, this also includes the impact on current retirees who received THP payments. The impact on the retirees' liabilities will be included when the benefits are adjusted for the payments.

## SECTION N – STATISTICAL TABLES

Table No.	Page Number	Content of Table
19	70	Distribution of Active Members by Age and by Years of Service – All Employees
20	71	Distribution of Active Members by Age and by Years of Service – Noncontributory Members, All
21	72	Distribution of Active Members by Age and by Years of Service – Noncontributory Members, General Employees
22	73	Distribution of Active Members by Age and by Years of Service – Noncontributory Members, Teachers
23	74	Distribution of Active Members by Age and by Years of Service – Contributory Members, All
24	75	Distribution of Active Members by Age and by Years of Service – Contributory Members, General Employees
25	76	Distribution of Active Members by Age and by Years of Service – Contributory Members, Teachers
26	77	Distribution of Active Members by Age and by Years of Service – Contributory Members, Police and Fire
27	78	Distribution of Active Members by Age and by Years of Service – Hybrid Members, All
28	79	Distribution of Active Members by Age and by Years of Service – Hybrid Members, General Employees
29	80	Distribution of Active Members by Age and by Years of Service – Hybrid Members, Teachers
30	81	Summary of Pension in Force by Type of Retirement
31	82	Summary of Pension in Force by Age and Type – General Employees
32	83	Summary of Pension in Force by Age and Type – Teachers
33	84	Summary of Pension in Force by Age and Type – Police and Fire
34	85	Noncontributory Pensions in Force by Years of Service
35	86	Noncontributory Pensions in Force by Years Since Retirement
36-1	87	Contributory Pensions in Force by Years of Service
36-2	88	Hybrid Pensions in Force by Years of Service
37-1	89	Contributory Pensions in Force by Years Since Retirement
37-2	90	Hybrid Pensions in Force by Years Since Retirement
38,41	91/94	Pensions in Force by Payment Option – General Employees/New
39,42	92/95	Pensions in Force by Payment Option – Teachers/New
40,43	93/96	Pensions in Force by Payment Option – Police and Fire/New



**TABLE 19**

**Distribution of Active Members by Age and by Years of Service  
All Employees  
As of 06/30/2025**

Attained Age	Years of Credited Service												Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.
Under 25	626 \$52,705	425 \$54,161	132 \$55,802	40 \$55,212	6 \$53,684	2 \$56,604	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1,231 \$53,632
25-29	964 \$56,766	1,066 \$54,954	887 \$59,302	557 \$61,193	317 \$63,792	461 \$65,018	2 \$75,020	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	4,254 \$58,847
30-34	748 \$60,067	851 \$58,160	685 \$59,622	583 \$60,763	457 \$64,968	2,217 \$68,096	298 \$73,638	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	5,839 \$63,931
35-39	614 \$61,293	700 \$58,946	594 \$62,019	456 \$64,144	336 \$69,533	2,509 \$70,055	1,835 \$82,187	232 \$97,636	0 \$0	0 \$0	0 \$0	0 \$0	7,276 \$71,136
40-44	526 \$61,365	603 \$61,368	488 \$62,109	425 \$66,188	298 \$64,338	2,055 \$70,437	1,949 \$83,928	1,705 \$97,236	255 \$103,121	0 \$0	0 \$0	0 \$0	8,304 \$77,951
45-49	490 \$61,353	487 \$59,591	433 \$63,233	356 \$65,354	262 \$64,412	1,732 \$69,220	1,564 \$82,613	1,869 \$95,923	1,793 \$105,942	193 \$113,043	0 \$0	0 \$0	9,179 \$83,533
50-54	358 \$63,863	394 \$63,660	374 \$63,738	278 \$67,590	209 \$63,470	1,413 \$68,786	1,231 \$79,627	1,442 \$92,525	1,847 \$103,195	1,497 \$113,096	210 \$98,896	1 \$74,693	9,254 \$87,878
55-59	248 \$62,545	317 \$64,068	301 \$64,707	241 \$60,784	157 \$65,453	1,110 \$66,919	1,033 \$76,150	1,200 \$86,649	1,448 \$95,948	1,383 \$107,765	1,269 \$105,102	158 \$95,121	8,865 \$87,255
60-64	142 \$64,616	217 \$65,681	204 \$64,951	185 \$60,363	110 \$68,030	965 \$66,898	868 \$75,020	1,087 \$78,586	1,070 \$84,684	761 \$95,327	831 \$99,317	648 \$102,596	7,088 \$82,195
65 & Over	93 \$70,788	124 \$69,459	101 \$68,154	102 \$64,122	86 \$80,095	812 \$69,939	717 \$75,819	722 \$80,632	799 \$84,847	538 \$90,035	554 \$100,832	888 \$111,087	5,536 \$85,913
Total	4,809 \$59,629	5,184 \$59,151	4,199 \$61,630	3,223 \$63,143	2,238 \$65,933	13,276 \$68,867	9,497 \$80,220	8,257 \$90,681	7,212 \$97,641	4,372 \$105,477	2,864 \$102,143	1,695 \$106,331	66,826 \$78,805



**TABLE 20**

**Distribution of Active Members by Age and by Years of Service  
Noncontributory Members, All  
As of 06/30/2025**

Attained Age	Years of Credited Service												Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	
Under 25	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
25-29	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
30-34	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
35-39	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	2 \$77,959	0 \$0	0 \$0	0 \$0	0 \$0	2 \$77,959
40-44	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	111 \$90,989	101 \$82,609	0 \$0	0 \$0	0 \$0	212 \$86,997
45-49	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	5 \$46,650	191 \$86,064	661 \$94,501	67 \$85,844	0 \$0	0 \$0	924 \$91,870
50-54	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1 \$59,329	0 \$0	125 \$85,680	680 \$91,331	524 \$98,808	89 \$90,722	0 \$0	1,419 \$93,534
55-59	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	2 \$41,199	117 \$80,729	585 \$86,881	551 \$97,183	483 \$96,798	80 \$90,552	1,818 \$92,353
60-64	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	3 \$72,582	95 \$67,119	507 \$80,725	376 \$89,495	378 \$94,841	276 \$95,807	1,635 \$87,746
65 & Over	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	3 \$81,292	84 \$70,917	348 \$76,946	282 \$83,863	283 \$92,850	382 \$106,680	1,382 \$89,476
Total	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1 \$59,329	13 \$59,790	725 \$81,631	2,882 \$87,246	1,800 \$93,541	1,233 \$94,853	738 \$100,865	7,392 \$90,805



**TABLE 21**

**Distribution of Active Members by Age and by Years of Service  
Noncontributory Members, General Employees  
As of 06/30/2025**

Attained Age	Years of Credited Service												Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	
Under 25	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
25-29	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
30-34	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
35-39	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	2 \$77,959	0 \$0	0 \$0	0 \$0	0 \$0	2 \$77,959
40-44	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	53 \$83,917	68 \$74,215	0 \$0	0 \$0	0 \$0	121 \$78,464
45-49	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	5 \$46,650	103 \$79,832	328 \$87,564	46 \$79,452	0 \$0	0 \$0	482 \$84,713
50-54	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1 \$59,329	0 \$0	94 \$80,441	419 \$83,925	251 \$89,323	73 \$85,618	0 \$0	838 \$85,269
55-59	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	2 \$41,199	98 \$73,157	442 \$80,558	346 \$93,157	296 \$90,103	69 \$88,573	1,253 \$86,092
60-64	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	3 \$72,582	83 \$64,414	404 \$72,608	282 \$81,971	266 \$88,359	203 \$91,781	1,241 \$80,700
65 & Over	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	2 \$83,531	72 \$67,508	282 \$69,300	221 \$75,499	215 \$83,752	288 \$98,963	1,080 \$81,263
Total	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1 \$59,329	12 \$58,371	505 \$74,780	1,943 \$78,958	1,146 \$85,609	850 \$87,566	560 \$95,079	5,017 \$83,261



**TABLE 22**

**Distribution of Active Members by Age and by Years of Service  
Noncontributory Members, Teachers  
As of 06/30/2025**

Attained Age	Years of Credited Service												Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	
Under 25	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
25-29	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
30-34	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
35-39	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
40-44	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	58 \$97,452	33 \$99,906	0 \$0	0 \$0	0 \$0	91 \$98,342
45-49	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	88 \$93,359	333 \$101,333	21 \$99,844	0 \$0	0 \$0	442 \$99,675
50-54	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	31 \$101,568	261 \$103,221	273 \$107,529	16 \$114,007	0 \$0	581 \$105,454
55-59	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	19 \$119,786	143 \$106,425	205 \$103,978	187 \$107,396	11 \$102,965	565 \$106,240
60-64	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	12 \$85,834	103 \$112,564	94 \$112,065	112 \$110,234	73 \$107,004	394 \$109,938
65 & Over	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1 \$76,814	12 \$91,375	66 \$109,614	61 \$114,165	68 \$121,614	94 \$130,321	302 \$118,847
<b>Total</b>	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1 \$76,814	220 \$97,359	939 \$104,397	654 \$107,440	383 \$111,026	178 \$119,068	2,375 \$106,740



**TABLE 23**

**Distribution of Active Members by Age and by Years of Service  
Contributory Members, All  
As of 06/30/2025**

Attained Age	Years of Credited Service												Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	
Under 25	35 \$72,415	46 \$74,113	20 \$74,242	7 \$72,015	0 \$0	108 \$73,450							
25-29	45 \$72,811	87 \$72,201	68 \$73,796	75 \$75,289	57 \$77,974	102 \$78,749	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	434 \$75,346
30-34	36 \$70,037	50 \$70,494	47 \$72,258	50 \$73,354	70 \$76,496	297 \$79,892	55 \$88,588	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	605 \$77,794
35-39	18 \$71,051	25 \$68,420	25 \$72,519	32 \$72,037	31 \$76,007	324 \$80,209	303 \$102,494	61 \$138,444	0 \$0	0 \$0	0 \$0	0 \$0	819 \$91,517
40-44	10 \$72,032	15 \$83,439	16 \$73,130	16 \$73,784	11 \$76,612	149 \$80,042	248 \$105,263	278 \$139,116	65 \$152,373	0 \$0	0 \$0	0 \$0	808 \$113,583
45-49	2 \$79,827	7 \$87,867	7 \$75,355	7 \$112,230	7 \$74,748	56 \$84,859	152 \$105,727	274 \$140,964	298 \$157,847	50 \$173,305	0 \$0	0 \$0	860 \$136,933
50-54	3 \$76,033	3 \$59,170	3 \$123,082	3 \$118,311	5 \$106,927	22 \$108,475	64 \$108,961	144 \$142,278	306 \$153,298	248 \$175,091	15 \$200,765	0 \$0	816 \$153,009
55-59	2 \$74,247	4 \$95,430	3 \$81,063	0 \$0	2 \$166,401	7 \$91,414	25 \$102,648	52 \$155,236	159 \$154,534	163 \$174,151	55 \$178,867	4 \$174,392	476 \$159,406
60-64	0 \$0	1 \$241,495	2 \$148,567	2 \$137,678	3 \$112,673	8 \$136,404	12 \$128,131	12 \$145,110	20 \$154,840	32 \$171,024	26 \$172,326	22 \$149,815	140 \$156,200
65 & Over	1 \$74,902	0 \$0	0 \$0	1 \$81,102	1 \$353,500	13 \$130,062	9 \$125,478	10 \$170,909	10 \$150,339	14 \$142,043	14 \$142,756	83 \$120,741	156 \$131,736
Total	152 \$71,992	238 \$73,921	191 \$74,970	193 \$76,690	187 \$80,643	978 \$82,040	868 \$104,044	831 \$141,702	858 \$155,039	507 \$173,443	110 \$175,711	109 \$128,578	5,222 \$117,835



**TABLE 24**

**Distribution of Active Members by Age and by Years of Service  
Contributory Members, General Employees  
As of 06/30/2025**

Attained Age	Years of Credited Service												Total	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over		
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	
Under 25	0 \$0	1 \$54,738	0 \$0	1 \$54,738										
25-29	0 \$0	0 \$0	0 \$0	0 \$0	1 \$74,902	3 \$70,137	0 \$0	4 \$71,328						
30-34	0 \$0	0 \$0	2 \$74,902	0 \$0	3 \$68,491	4 \$62,852	1 \$77,549	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	10 \$68,423
35-39	0 \$0	0 \$0	3 \$78,120	3 \$72,192	1 \$74,902	4 \$88,520	7 \$94,019	1 \$82,887	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	19 \$85,313
40-44	5 \$70,764	1 \$218,685	1 \$74,902	1 \$74,902	0 \$0	11 \$93,934	6 \$81,651	4 \$106,692	1 \$98,270	0 \$0	0 \$0	0 \$0	0 \$0	30 \$92,351
45-49	1 \$74,902	2 \$141,126	1 \$74,902	2 \$206,759	0 \$0	7 \$116,586	6 \$143,845	9 \$117,643	10 \$127,141	0 \$0	0 \$0	0 \$0	0 \$0	38 \$127,762
50-54	1 \$67,436	0 \$0	1 \$206,759	0 \$0	3 \$127,891	5 \$185,581	4 \$109,243	5 \$127,110	18 \$123,209	9 \$120,993	1 \$171,622	0 \$0	0 \$0	47 \$130,566
55-59	0 \$0	2 \$116,998	2 \$82,371	0 \$0	2 \$166,401	2 \$76,919	5 \$102,348	8 \$184,740	24 \$132,346	12 \$173,697	4 \$138,455	1 \$105,084	1 \$105,084	62 \$141,849
60-64	0 \$0	1 \$241,495	1 \$218,685	1 \$206,759	1 \$59,146	5 \$169,681	7 \$154,951	5 \$126,718	4 \$230,090	4 \$181,848	7 \$117,311	10 \$89,052	10 \$89,052	46 \$144,613
65 & Over	1 \$74,902	0 \$0	0 \$0	1 \$81,102	1 \$353,500	11 \$144,366	8 \$131,935	7 \$195,302	6 \$164,543	8 \$132,575	5 \$138,709	58 \$105,587	58 \$105,587	106 \$126,279
Total	8 \$71,382	7 \$147,309	11 \$102,196	8 \$124,107	12 \$123,700	52 \$118,912	44 \$117,671	39 \$145,708	63 \$137,641	33 \$150,342	17 \$131,774	69 \$103,184	69 \$103,184	363 \$124,627



**TABLE 25**

**Distribution of Active Members by Age and by Years of Service  
Contributory Members, Teachers  
As of 06/30/2025**

Attained Age	Years of Credited Service												Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.
Under 25	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
25-29	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
30-34	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
35-39	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
40-44	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
45-49	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1 \$83,632	2 \$114,522	0 \$0	0 \$0	0 \$0
50-54	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1 \$105,880	0 \$0	0 \$0
55-59	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1 \$126,791	3 \$114,205	0 \$0
60-64	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
65 & Over	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1 \$12,985	0 \$0	0 \$0	0 \$0	1 \$221,687	3 \$112,431	15 \$135,470	20 \$130,201
<b>Total</b>	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1 \$12,985	0 \$0	1 \$83,632	2 \$114,522	3 \$151,453	6 \$113,318	15 \$135,470	28 \$124,713



**TABLE 26**

**Distribution of Active Members by Age and by Years of Service  
Contributory Members, Police and Firefighters  
As of 06/30/2025**

Attained Age	Years of Credited Service												Total	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over		
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	
Under 25	35 \$72,415	45 \$74,544	20 \$74,242	7 \$72,015	0 #DIV/0!	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	107 \$73,625
25-29	45 \$72,811	87 \$72,201	68 \$73,796	75 \$75,289	56 \$78,029	99 \$79,010	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	430 \$75,383
30-34	36 \$70,037	50 \$70,494	45 \$72,141	50 \$73,354	67 \$76,854	293 \$80,125	54 \$88,792	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	595 \$77,951
35-39	18 \$71,051	25 \$68,420	22 \$71,755	29 \$72,021	30 \$76,044	320 \$80,105	296 \$102,694	60 \$139,370	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	800 \$91,664
40-44	5 \$73,301	14 \$73,779	15 \$73,012	15 \$73,709	11 \$76,612	138 \$78,935	242 \$105,848	274 \$139,589	64 \$153,218	0 \$0	0 \$0	0 \$0	0 \$0	778 \$114,402
45-49	1 \$84,751	5 \$66,564	6 \$75,431	5 \$74,418	7 \$74,748	49 \$80,327	146 \$104,161	264 \$141,976	286 \$159,224	50 \$173,305	0 \$0	0 \$0	0 \$0	819 \$137,478
50-54	2 \$80,331	3 \$59,170	2 \$81,244	3 \$118,311	2 \$75,481	17 \$85,796	60 \$108,942	139 \$142,824	288 \$155,179	238 \$177,427	14 \$202,847	0 \$0	0 \$0	768 \$154,444
55-59	2 \$74,247	2 \$73,862	1 \$78,448	0 \$0	0 \$0	5 \$97,212	20 \$102,723	44 \$149,871	135 \$158,479	150 \$174,503	48 \$186,276	3 \$197,495	3 \$0	410 \$162,471
60-64	0 \$0	0 \$0	1 \$78,448	1 \$68,597	2 \$139,437	3 \$80,941	5 \$90,582	7 \$158,247	16 \$136,028	28 \$169,478	19 \$192,594	12 \$200,451	12 \$0	94 \$161,871
65 & Over	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1 \$89,803	1 \$73,821	3 \$113,991	4 \$129,034	5 \$141,262	6 \$161,291	10 \$186,540	10 \$0	30 \$152,040
<b>Total</b>	<b>144</b> \$72,026	<b>231</b> \$71,697	<b>180</b> \$73,306	<b>185</b> \$74,640	<b>175</b> \$77,691	<b>925</b> \$80,042	<b>824</b> \$103,316	<b>791</b> \$141,578	<b>793</b> \$156,523	<b>471</b> \$175,202	<b>87</b> \$188,599	<b>25</b> \$194,532	<b>25</b> \$0	<b>4,831</b> \$117,285



**TABLE 27**

**Distribution of Active Members by Age and by Years of Service  
Hybrid Members, All  
As of 06/30/2025**

Attained Age	Years of Credited Service												Total	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over		
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	
Under 25	591 \$51,538	379 \$51,740	112 \$52,509	33 \$51,648	6 \$53,684	2 \$56,604	0 \$0	1,123 \$51,726						
25-29	919 \$55,980	979 \$53,421	819 \$58,099	482 \$58,999	260 \$60,683	359 \$61,117	2 \$75,020	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	3,820 \$56,972
30-34	712 \$59,563	801 \$57,390	638 \$58,691	533 \$59,582	387 \$62,883	1,920 \$66,271	243 \$70,255	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	5,234 \$62,329
35-39	596 \$60,998	675 \$58,595	569 \$61,558	424 \$63,549	305 \$68,875	2,185 \$68,549	1,532 \$78,171	169 \$83,139	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	6,455 \$68,548
40-44	516 \$61,158	588 \$60,805	472 \$61,735	409 \$65,890	287 \$63,868	1,906 \$69,686	1,701 \$80,818	1,316 \$88,915	89 \$90,430	0 \$0	0 \$0	0 \$0	0 \$0	7,284 \$73,735
45-49	488 \$61,277	480 \$59,178	426 \$63,034	349 \$64,414	255 \$64,128	1,676 \$68,697	1,407 \$80,244	1,404 \$88,474	834 \$96,464	76 \$97,375	0 \$0	0 \$0	0 \$0	7,395 \$76,281
50-54	355 \$63,760	391 \$63,694	371 \$63,259	275 \$67,037	204 \$62,405	1,390 \$68,164	1,167 \$78,018	1,173 \$87,146	861 \$94,759	725 \$102,217	106 \$91,344	1 \$74,693	1 \$0	7,019 \$79,163
55-59	246 \$62,450	313 \$63,667	298 \$64,542	241 \$60,784	155 \$64,150	1,103 \$66,763	1,006 \$75,561	1,031 \$83,861	704 \$90,250	669 \$100,305	731 \$105,039	74 \$95,776	74 \$0	6,571 \$80,618
60-64	142 \$64,616	216 \$64,867	202 \$64,123	183 \$59,518	107 \$66,778	957 \$66,317	853 \$74,282	980 \$78,884	543 \$85,796	353 \$94,676	427 \$98,834	350 \$104,981	350 \$0	5,313 \$78,536
65 & Over	92 \$70,744	124 \$69,459	101 \$68,154	101 \$63,954	85 \$76,878	799 \$68,961	705 \$75,162	628 \$80,493	441 \$89,597	242 \$94,218	257 \$107,338	423 \$113,172	423 \$0	3,998 \$82,894
Total	4,657 \$59,225	4,946 \$58,440	4,008 \$60,994	3,030 \$62,280	2,051 \$64,592	12,297 \$67,820	8,616 \$77,851	6,701 \$85,333	3,472 \$92,086	2,065 \$99,193	1,521 \$102,732	848 \$108,228	848 \$0	54,212 \$73,409



## TABLE 28

### Distribution of Active Members by Age and by Years of Service Hybrid Members, General Employees As of 06/30/2025

Attained Age	Years of Credited Service												Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.
Under 25	396 \$49,527	288 \$50,858	105 \$51,943	33 \$51,648	6 \$53,684	2 \$56,604	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	830 \$50,426
25-29	633 \$55,607	701 \$52,789	522 \$57,966	292 \$58,924	141 \$58,978	233 \$57,608	2 \$75,020	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	2,524 \$56,084
30-34	511 \$56,879	609 \$56,082	501 \$57,413	393 \$59,582	236 \$61,592	1,201 \$63,859	160 \$66,087	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	3,611 \$60,150
35-39	413 \$58,735	516 \$57,391	442 \$60,436	329 \$62,267	213 \$69,473	1,549 \$66,081	891 \$75,808	101 \$77,782	0 \$0	0 \$0	0 \$0	0 \$0	4,454 \$65,925
40-44	367 \$59,845	454 \$58,688	357 \$59,933	318 \$65,806	208 \$61,694	1,420 \$66,605	1,082 \$78,629	684 \$85,728	60 \$86,818	0 \$0	0 \$0	0 \$0	4,950 \$70,154
45-49	363 \$59,460	355 \$56,673	318 \$59,668	265 \$61,935	199 \$60,939	1,275 \$65,167	994 \$76,568	903 \$84,781	390 \$90,140	49 \$93,835	0 \$0	0 \$0	5,111 \$71,361
50-54	271 \$63,042	323 \$63,366	298 \$62,135	214 \$66,410	159 \$61,237	1,080 \$64,498	870 \$73,581	806 \$81,884	536 \$88,504	317 \$94,812	76 \$84,051	1 \$74,693	4,951 \$73,449
55-59	199 \$61,759	261 \$62,381	255 \$63,255	210 \$60,912	125 \$63,400	888 \$63,816	784 \$71,024	784 \$78,429	511 \$83,777	406 \$93,619	403 \$102,018	61 \$92,333	4,887 \$75,061
60-64	123 \$63,357	188 \$64,803	182 \$63,332	161 \$57,439	90 \$65,017	810 \$63,285	691 \$69,905	791 \$73,580	413 \$79,528	245 \$88,188	319 \$95,257	232 \$100,200	4,245 \$73,605
65 & Over	74 \$71,925	100 \$67,405	84 \$68,434	74 \$62,525	76 \$76,647	670 \$66,443	585 \$71,679	490 \$72,656	344 \$82,672	175 \$83,532	185 \$101,205	285 \$105,130	3,142 \$77,039
Total	3,350 \$57,962	3,795 \$57,406	3,064 \$59,882	2,289 \$61,611	1,453 \$63,503	9,128 \$64,895	6,059 \$74,169	4,559 \$79,917	2,254 \$85,136	1,192 \$91,348	983 \$98,282	579 \$101,754	38,705 \$69,531



## TABLE 29

### Distribution of Active Members by Age and by Years of Service Hybrid Members, Teachers As of 06/30/2025

Attained Age	Years of Credited Service												Total	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over		
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	
Under 25	195 \$55,621	91 \$54,531	7 \$61,003	0 \$0	293 \$55,411									
25-29	286 \$56,806	278 \$55,016	297 \$58,333	190 \$59,116	119 \$62,703	126 \$67,605	0 \$0	1,296 \$58,702						
30-34	201 \$66,385	192 \$61,542	137 \$63,365	140 \$59,580	151 \$64,900	719 \$70,300	83 \$78,289	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1,623 \$67,175
35-39	183 \$66,106	159 \$62,503	127 \$65,462	95 \$67,988	92 \$67,491	636 \$74,561	641 \$81,455	68 \$91,095	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	2,001 \$74,386
40-44	149 \$64,392	134 \$67,979	115 \$67,331	91 \$66,187	79 \$69,591	486 \$78,689	619 \$84,644	632 \$92,365	29 \$97,901	0 \$0	0 \$0	0 \$0	0 \$0	2,334 \$81,328
45-49	125 \$66,554	125 \$66,292	108 \$72,946	84 \$72,233	56 \$75,462	401 \$79,920	413 \$89,090	501 \$95,129	444 \$102,018	27 \$103,799	0 \$0	0 \$0	0 \$0	2,284 \$87,293
50-54	84 \$66,075	68 \$65,252	73 \$67,847	61 \$69,235	45 \$66,530	310 \$80,937	297 \$91,014	367 \$98,702	325 \$105,075	408 \$107,971	30 \$109,821	0 \$0	0 \$0	2,068 \$92,843
55-59	47 \$65,372	52 \$70,125	43 \$72,178	31 \$59,919	30 \$67,277	215 \$78,937	222 \$91,585	247 \$101,103	193 \$107,389	263 \$110,627	328 \$108,752	13 \$111,932	13 \$114,381	1,684 \$96,746
60-64	19 \$72,768	28 \$65,296	20 \$71,328	22 \$74,732	17 \$76,104	147 \$83,026	162 \$92,951	189 \$101,081	130 \$105,709	108 \$109,395	108 \$109,401	118 \$114,381	118 \$114,381	1,068 \$98,138
65 & Over	18 \$65,889	24 \$78,018	17 \$66,769	27 \$67,868	9 \$78,831	129 \$82,035	120 \$92,142	138 \$108,321	97 \$114,155	67 \$122,130	72 \$123,096	138 \$129,780	138 \$129,780	856 \$104,383
Total	1,307 \$62,463	1,151 \$61,852	944 \$64,604	741 \$64,345	598 \$67,240	3,169 \$76,246	2,557 \$86,577	2,142 \$96,861	1,218 \$104,947	873 \$109,905	538 \$110,862	269 \$122,162	269 \$122,162	15,507 \$83,089



**TABLE 30**

**Summary of Pensions in Force by Type of Retirement**

Employee Group	Contributory		Noncontributory		Hybrid	
	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension
All Employees	15,473	\$ 4,150	18,241	\$ 2,011	17,353	\$ 2,690
	<u>Service</u>		<u>Service</u>		<u>Service</u>	
Total	15,191	\$ 4,189	17,351	\$ 2,053	16,745	\$ 2,725
General Employees - male	2,640	3,594	5,601	2,084	4,962	2,805
General Employees - female	4,180	2,621	7,057	1,607	7,438	2,343
Teachers - male	874	4,225	1,435	2,848	1,253	3,628
Teachers - female	3,207	3,907	3,258	2,615	3,092	3,149
Police and Firefighters	4,290	6,285	-	-	-	-
	<u>Ordinary Disability</u>		<u>Ordinary Disability</u>		<u>Ordinary Disability</u>	
Total	99	\$ 1,298	662	\$ 1,195	417	\$ 1,768
General Employees - male	29	1,182	297	1,212	177	1,606
General Employees - female	27	971	281	1,029	153	1,663
Teachers - male	4	1,844	32	1,832	20	2,592
Teachers - female	13	1,774	52	1,597	67	2,189
Police and Firefighters	26	1,446	-	-	-	-
	<u>Accidental Disability</u>		<u>Accidental Disability</u>		<u>Accidental Disability</u>	
Total	183	\$ 2,454	228	\$ 1,235	191	\$ 1,620
General Employees - male	56	2,027	120	1,304	91	1,623
General Employees - female	31	1,754	101	1,128	86	1,549
Teachers - male	-	-	1	1,358	2	1,802
Teachers - female	4	4,234	6	1,643	12	2,082
Police and Firefighters	92	2,873	-	-	-	-

**TABLE 31****Summary of Pensions in Force by Age and Type****General Employees**

Age	Type of Pension			
	Total	Service	Ordinary Disability	Accidental Disability
Total	33,327	31,878	964	485
<b>Contributory</b>				
Total	6,963	6,820	56	87
30-39	-	-	-	-
40-44	2	2	-	-
45-49	4	4	-	-
50-54	11	9	-	2
55-59	25	24	1	-
60-64	145	136	1	8
65-69	470	454	6	10
70-74	942	921	12	9
75-79	1,211	1,191	7	13
80-84	1,305	1,278	8	19
85-89	1,179	1,157	10	12
90-94	1,052	1,036	6	10
95-99	506	498	5	3
100 & over	111	110	-	1
<b>Noncontributory</b>				
Total	13,457	12,658	578	221
30-39	-	-	-	-
40-44	-	-	-	-
45-49	3	1	1	1
50-54	31	8	15	8
55-59	310	252	45	13
60-64	933	822	86	25
65-69	2,352	2,177	114	61
70-74	3,015	2,825	136	54
75-79	3,042	2,918	99	25
80-84	2,355	2,261	68	26
85-89	1,029	1,010	13	6
90-94	313	312	1	-
95-99	69	67	-	2
100 & over	5	5	-	-
<b>Hybrid</b>				
Total	12,907	12,400	330	177
30-39	5	-	-	5
40-44	4	-	2	2
45-49	17	1	10	6
50-54	23	2	14	7
55-59	384	328	42	14
60-64	1,639	1,511	90	38
65-69	3,516	3,396	82	38
70-74	4,014	3,909	62	43
75-79	2,487	2,451	22	14
80-84	688	675	4	9
85-89	117	114	2	1
90-94	11	11	-	-
95-99	2	2	-	-
100 & over	-	-	-	-

**TABLE 32****Summary of Pensions in Force by Age and Type****Teachers**

Age	Type of Pension			
	Total	Service	Ordinary Disability	Accidental Disability
Total	13,332	13,119	188	25
<b>Contributory</b>				
Total	4,102	4,081	17	4
30-39	-	-	-	-
40-44	-	-	-	-
45-49	-	-	-	-
50-54	-	-	-	-
55-59	1	1	-	-
60-64	14	14	-	-
65-69	120	119	1	-
70-74	311	310	1	-
75-79	881	873	7	1
80-84	1,019	1,015	3	1
85-89	861	857	4	-
90-94	653	652	-	1
95-99	207	205	1	1
100 & over	35	35	-	-
<b>Noncontributory</b>				
Total	4,784	4,693	84	7
30-39	-	-	-	-
40-44	-	-	-	-
45-49	-	-	-	-
50-54	2	-	2	-
55-59	87	74	13	-
60-64	276	262	13	1
65-69	509	493	15	1
70-74	833	814	15	4
75-79	1,403	1,387	16	-
80-84	1,123	1,113	9	1
85-89	439	438	1	-
90-94	92	92	-	-
95-99	19	19	-	-
100 & over	1	1	-	-
<b>Hybrid</b>				
Total	4,446	4,345	87	14
30-39	-	-	-	-
40-44	1	-	1	-
45-49	3	-	3	-
50-54	11	-	10	1
55-59	159	141	17	1
60-64	607	588	14	5
65-69	980	956	19	5
70-74	1,326	1,308	17	1
75-79	1,004	997	6	1
80-84	292	292	-	-
85-89	52	52	-	-
90-94	11	11	-	-
95-99	-	-	-	-
100 & over	-	-	-	-

**TABLE 33****Summary of Pensions in Force by Age and Type****Police and Firefighters**

Age	Type of Pension			
	Total	Service	Ordinary Disability	Accidental Disability
Total	4,408	4,290	26	92
30-39	-	-	-	-
40-44	3	-	-	3
45-49	33	29	2	2
50-54	250	243	1	6
55-59	681	666	6	9
60-64	776	759	4	13
65-69	716	704	1	11
70-74	660	643	4	13
75-79	658	639	2	17
80-84	400	382	4	14
85-89	170	166	1	3
90-94	50	49	1	-
95-99	9	8	-	1
100 & over	2	2	-	-

**TABLE 34**

**Noncontributory Service Pensions in Force  
by Years of Service**

Years of Service	Total		General Employees		Teachers	
	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension
Total	17,351	\$ 2,053	12,658	\$ 1,818	4,693	\$ 2,686
Less than 5	1	1,548	1	1,548	-	-
5-9	10	775	7	806	3	703
10-14	2,891	642	2,299	610	592	769
15-19	2,411	1,084	1,861	1,010	550	1,333
20-24	2,687	1,449	2,093	1,336	594	1,847
25-29	2,434	2,056	1,869	1,892	565	2,599
30-34	4,298	2,864	2,786	2,636	1,512	3,285
35 and over	2,619	3,792	1,742	3,470	877	4,430

**TABLE 35**

**Noncontributory Service Pensions in Force  
by Years Since Retirement**

Years Since Retirement	Total		General Employees		Teachers	
	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension
Total	17,351	\$ 2,053	12,658	\$ 1,818	4,693	\$ 2,686
Less than 5	3,641	2,073	2,868	1,900	773	2,716
5-9	3,786	1,870	2,950	1,738	836	2,335
10-14	3,097	1,851	2,274	1,657	823	2,387
15-19	3,000	2,140	2,182	1,864	818	2,873
20-24	2,486	2,294	1,559	1,902	927	2,954
25-29	782	2,162	504	1,757	278	2,898
30-34	537	2,614	309	2,368	228	2,948
35 and over	22	1,811	12	1,242	10	2,494

**TABLE 36-1****Contributory Service Pensions in Force****by Years of Service**

Years of Service	Total		General Employees		Teachers		Police and Firefighters	
	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension
Total	15,191	\$ 4,189	6,820	\$ 2,998	4,081	\$ 3,975	4,290	\$ 6,285
Less than 5	6	1,200	3	774	2	839	1	3,200
5-9	322	556	232	643	76	270	14	658
10-14	664	1,154	503	1,160	91	864	70	1,491
15-19	913	1,859	689	1,750	124	1,578	100	2,961
20-24	1,418	2,451	953	2,078	272	2,424	193	4,329
25-29	5,187	4,515	1,634	2,877	1,012	3,379	2,541	6,022
30-34	4,637	4,976	1,630	3,842	1,786	4,266	1,221	7,529
35 and over	2,044	5,386	1,176	4,729	718	5,889	150	8,125

**TABLE 36-2****Hybrid Service Pensions in Force****by Years of Service**

Years of Service	Total		General Employees		Teachers	
	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension
Total	16,745	\$ 2,725	12,400	\$ 2,528	4,345	\$ 3,287
Less than 5	2	2,769	-	-	2	2,769
5-9	1,256	792	989	789	267	801
10-14	2,502	1,149	2,046	1,100	456	1,370
15-19	2,450	1,705	1,910	1,636	540	1,949
20-24	2,232	2,127	1,618	1,981	614	2,511
25-29	2,163	2,926	1,555	2,730	608	3,427
30-34	3,882	3,886	2,709	3,760	1,173	4,177
35 and over	2,258	5,056	1,573	4,804	685	5,634

**TABLE 37-1**

**Contributory Service Pensions in Force  
by Years Since Retirement**

Years Since Retirement	Total		General Employees		Teachers		Police and Firefighters	
	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension
Total	15,191	\$ 4,189	6,820	\$ 2,998	4,081	\$ 3,975	4,290	\$ 6,285
Less than 5	1,159	6,997	229	5,015	49	6,212	881	7,556
5-9	1,451	6,653	422	4,968	137	5,674	892	7,601
10-14	1,590	5,238	690	3,858	254	5,474	646	6,619
15-19	2,171	4,400	1,119	3,398	517	4,802	535	6,108
20-24	2,684	3,820	1,253	2,998	897	4,336	534	4,879
25-29	1,760	3,011	941	2,296	513	3,459	306	4,459
30-34	2,857	3,218	1,359	2,554	1,127	3,641	371	4,362
35 -39	1,140	2,242	573	1,744	469	2,644	98	3,223
40-44	327	1,898	204	1,570	101	2,323	22	2,989
45 and over	52	1,226	30	910	17	1,503	5	2,188

**TABLE 37-2**

**Hybrid Service Pensions in Force  
by Years Since Retirement**

Years Since Retirement	Total		General Employees		Teachers	
	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension
Total	16,745	\$ 2,725	12,400	\$ 2,528	4,345	\$ 3,287
Less than 5	5,839	2,799	4,496	2,594	1,343	3,486
5-9	5,565	2,681	4,180	2,467	1,385	3,325
10-14	3,741	2,634	2,593	2,455	1,148	3,037
15-19	1,600	2,823	1,131	2,661	469	3,216

## TABLE 38

### Pensions in Force by Payment Option

#### General Employees

Type of Option	Total		Service		Ordinary Disability		Accidental Disability		Other	
	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension
<b>Total</b>	<b>33,327</b>	<b>\$ 2,304</b>	<b>31,878</b>	<b>\$ 2,347</b>	<b>964</b>	<b>\$ 1,295</b>	<b>485</b>	<b>\$ 1,483</b>	<b>-</b>	<b>\$ -</b>
<b>Contributory</b>										
Total	6,963	\$ 2,969	6,820	\$ 2,998	56	\$ 1,080	87	\$ 1,930	-	\$ -
Maximum	1,069	3,176	1,052	3,200	8	1,558	9	1,787	-	-
Option 1	352	2,425	333	2,490	11	1,182	8	1,416	-	-
Option 2	581	3,692	562	3,747	4	2,091	15	2,064	-	-
Option 3	306	4,136	303	4,160	2	1,243	1	2,796	-	-
Option 4	3,108	3,114	3,055	3,139	20	949	33	2,065	-	-
Option 5	1,547	2,157	1,515	2,174	11	471	21	1,837	-	-
<b>Noncontributory</b>										
Total	13,457	\$ 1,778	12,658	\$ 1,818	578	\$ 1,123	221	\$ 1,223	-	\$ -
Maximum	6,753	1,753	6,431	1,783	225	1,103	97	1,240	-	-
Option A	2,833	1,880	2,708	1,910	82	1,251	43	1,195	-	-
Option B	3,136	1,753	2,826	1,822	241	1,093	69	1,230	-	-
Option C	735	1,729	693	1,763	30	1,167	12	1,152	-	-
<b>Hybrid</b>										
Total	12,907	\$ 2,492	12,400	\$ 2,528	330	\$ 1,632	177	\$ 1,587	-	\$ -
Maximum	4,615	2,459	4,471	2,486	81	1,676	63	1,540	-	-
Option 1	856	2,304	831	2,319	18	1,705	7	1,961	-	-
Option 2	2,816	2,584	2,642	2,649	109	1,623	65	1,556	-	-
Option 3	1,722	2,994	1,673	3,033	30	1,678	19	1,634	-	-
Option 4	1,742	2,425	1,675	2,457	57	1,569	10	1,893	-	-
Option 5	1,156	1,896	1,108	1,911	35	1,585	13	1,471	-	-

**TABLE 39**

**Pensions in Force by Payment Option**

**Teachers**

Type of Option	Total		Service		Ordinary Disability		Accidental Disability		Other	
	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension
Total	13,332	\$ 3,266	13,119	\$ 3,286	188	\$ 1,971	25	\$ 2,270	-	\$ -
Contributory										
Total	4,102	\$ 3,966	4,081	\$ 3,975	17	\$ 1,791	4	\$ 4,234	-	\$ -
Maximum	670	4,347	663	4,367	6	2,048	1	5,164	-	-
Option 1	163	3,630	162	3,641	1	1,786	-	-	-	-
Option 2	152	4,047	152	4,047	-	-	-	-	-	-
Option 3	135	4,899	134	4,908	1	3,671	-	-	-	-
Option 4	1,783	4,313	1,775	4,322	6	1,804	2	3,227	-	-
Option 5	1,199	3,169	1,195	3,174	3	624	1	5,320	-	-
Noncontributory										
Total	4,784	\$ 2,667	4,693	\$ 2,686	84	\$ 1,687	7	\$ 1,602	-	\$ -
Maximum	2,917	2,718	2,871	2,734	40	1,707	6	1,643	-	-
Option A	841	2,798	831	2,809	9	1,920	1	1,358	-	-
Option B	792	2,382	759	2,418	33	1,553	-	-	-	-
Option C	234	2,531	232	2,532	2	2,429	-	-	-	-
Hybrid										
Total	4,446	\$ 3,263	4,345	\$ 3,287	87	\$ 2,282	14	\$ 2,042	-	\$ -
Maximum	1,774	3,169	1,732	3,192	35	2,264	7	1,958	-	-
Option 1	231	3,129	225	3,146	6	2,487	-	-	-	-
Option 2	915	3,262	888	3,283	21	2,710	6	2,080	-	-
Option 3	615	3,700	606	3,722	8	2,177	1	2,399	-	-
Option 4	498	3,377	485	3,419	13	1,805	-	-	-	-
Option 5	413	2,961	409	2,974	4	1,640	-	-	-	-

**TABLE 40****Pensions in Force by Payment Option****Police and Firefighters**

Type of Option	Total		Service		Ordinary Disability		Accidental Disability		Other	
	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension
Total	4,408	\$ 6,185	4,290	\$ 6,285	26	\$ 1,446	92	\$ 2,873	-	\$ -
Maximum	237	6,920	223	7,182	-	-	14	2,752	-	-
Option 1	59	5,910	50	6,263	1	2,958	8	4,077	-	-
Option 2	387	6,794	367	7,007	8	1,993	12	3,493	-	-
Option 3	183	7,742	178	7,876	2	1,487	3	3,917	-	-
Option 4	2,666	6,504	2,638	6,546	7	1,305	21	2,988	-	-
Option 5	876	4,439	834	4,563	8	824	34	2,258	-	-

## TABLE 41

### Pensions in Force by Payment Option

#### General Employees - New Retirees

Type of Option	Total		Service		Ordinary Disability		Accidental Disability		Other	
	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension
<b>Total</b>	1,532	\$ 2,253	1,475	\$ 2,286	33	\$ 1,484	24	\$ 1,283	-	\$ -
<b>Contributory</b>										
Total	28	\$ 4,163	28	\$ 4,163	-	\$ -	-	\$ -	-	\$ -
Maximum	4	3,078	4	3,078	-	-	-	-	-	-
Option 1	-	-	-	-	-	-	-	-	-	-
Option 2	7	4,830	7	4,830	-	-	-	-	-	-
Option 3	2	4,901	2	4,901	-	-	-	-	-	-
Option 4	13	4,138	13	4,138	-	-	-	-	-	-
Option 5	2	3,426	2	3,426	-	-	-	-	-	-
<b>Noncontributory</b>										
Total	555	\$ 1,888	536	\$ 1,903	9	\$ 1,351	10	\$ 1,548	-	\$ -
Maximum	256	1,786	252	1,795	1	1,286	3	1,241	-	-
Option A	119	2,052	113	2,073	2	1,698	4	1,641	-	-
Option B	147	1,950	139	1,988	6	1,247	2	1,457	-	-
Option C	33	1,808	32	1,793	-	-	1	2,287	-	-
<b>Hybrid</b>										
Total	949	\$ 2,410	911	\$ 2,453	24	\$ 1,534	14	\$ 1,094	-	\$ -
Maximum	337	2,494	326	2,543	6	982	5	1,146	-	-
Option 1	58	2,219	55	2,262	3	1,412	-	-	-	-
Option 2	185	2,495	171	2,552	8	2,098	6	1,397	-	-
Option 3	101	2,968	99	3,007	1	869	1	1,205	-	-
Option 4	147	2,333	143	2,356	2	1,916	2	1,120	-	-
Option 5	121	1,779	117	1,796	4	1,301	-	-	-	-

**TABLE 42**

**Pensions in Force by Payment Option**

**Teachers - New Retirees**

Type of Option	Total		Service		Ordinary Disability		Accidental Disability		Other	
	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension
Total	465	\$ 3,215	456	\$ 3,228	9	\$ 2,534	-	\$ -	-	\$ -
Contributory										
Total	6	\$ 6,625	6	\$ 6,625	-	\$ -	-	\$ -	-	\$ -
Maximum	1	6,298	1	6,298	-	-	-	-	-	-
Option 1	-	-	-	-	-	-	-	-	-	-
Option 2	1	5,818	1	5,818	-	-	-	-	-	-
Option 3	-	-	-	-	-	-	-	-	-	-
Option 4	2	9,934	2	9,934	-	-	-	-	-	-
Option 5	2	3,881	2	3,881	-	-	-	-	-	-
Noncontributory										
Total	162	\$ 2,597	159	\$ 2,614	3	\$ 1,723	-	\$ -	-	\$ -
Maximum	81	2,538	81	2,538	-	-	-	-	-	-
Option A	32	2,821	31	2,864	1	1,502	-	-	-	-
Option B	40	2,566	38	2,605	2	1,833	-	-	-	-
Option C	9	2,469	9	2,469	-	-	-	-	-	-
Hybrid										
Total	297	\$ 3,483	291	\$ 3,494	6	\$ 2,939	-	\$ -	-	\$ -
Maximum	101	3,346	98	3,357	3	2,967	-	-	-	-
Option 1	22	3,178	21	3,135	1	4,069	-	-	-	-
Option 2	63	3,808	61	3,856	2	2,332	-	-	-	-
Option 3	31	3,819	31	3,819	-	-	-	-	-	-
Option 4	44	3,393	44	3,393	-	-	-	-	-	-
Option 5	36	3,306	36	3,306	-	-	-	-	-	-

## TABLE 43

### Pensions in Force by Payment Option

#### Police and Firefighters - New Retirees

Type of Option	Total		Service		Ordinary Disability		Accidental Disability		Other	
	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension	Number	Average Monthly Pension
Total	189	\$ 6,892	187	\$ 6,922	-	\$ -	2	\$ 4,080	-	\$ -
Maximum	12	7,719	12	7,719	-	-	-	-	-	-
Option 1	3	6,010	3	6,010	-	-	-	-	-	-
Option 2	27	7,183	27	7,183	-	-	-	-	-	-
Option 3	15	6,782	14	6,911	-	-	1	4,977	-	-
Option 4	103	6,991	102	7,028	-	-	1	3,183	-	-
Option 5	29	6,079	29	6,079	-	-	-	-	-	-

## SECTION O – DEFINITION OF ACTUARIAL TERMS

1. *Actuarial Accrued Liability* – for benefits payable in the future to present members, it will equal the present value of benefits payable in the future to them less the present value of future normal costs.
2. *Actuarial Assumptions* – assumptions as to future experience under ERS. Current actuarial assumptions are detailed in Table 18 of the current annual valuation report. Assumptions include future fund earnings rate, rates of future salary increases, and rates of death (both before and after retirement), disability, retirement, and withdrawal.
3. *Actuarial Gain or Actuarial Loss* - a measure of the difference between actual experience and assumed experience of ERS. Through the actuarial assumptions, rates of decrements, rates of salary increases, and rates of fund earnings have been forecasted. To the extent that actual experience differs from that assumed, actuarial liabilities emerge which may be the same as forecasted, or they may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., ERS's assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results that produce actuarial liabilities which are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.
4. *Actuarial Liabilities* - the actuarially determined present value of future benefits to be provided by ERS. There are separate actuarially determined present values for retired members and non-retired members (either active or inactive). When applied to active members, it takes into account benefits which will be earned through future service and future salary increases.
5. *Actuarial Value of Present Assets* - the value of present ERS assets for valuation purposes. This value is calculated under a four-year phase-in of the excess (shortfall) between expected and actual income return.
6. *Actuarially Determined* - values which have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.
7. *Decrements* - those types of activities by members of ERS which cause them no longer to be members, i.e., death, retirement, disability, and withdrawal. It is a general term referring to any or all of these membership-terminating events.
8. *Defined Benefits* - in a retirement plan, benefits which are defined by a specific formula applied to specific member compensation and/or specific years of service. The amount of the benefit is not a function of contributions or actual earnings on those contributions.
9. *Defined Contributions* - in a retirement plan, periodic contributions to the plan which are defined as a specific percent of compensation.

10. *Experience Study* - a periodic review and analysis of the actual experience of ERS which may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.
11. *Funding Period* - the number of years in the future that will be required to fund (i.e., pay off or eliminate) the unfunded actuarial accrued liability, based on the actuarial assumptions and assuming no future actuarial gains or losses.
12. *Future Benefits* - benefits specified in the law which will become payable at some time in the future when the member satisfies the requirement to receive such benefits.
13. *Future Contributions* - contributions to be made by the member or the employers in the future.
14. *Normal Cost* - the actuarial cost to fund the benefits provided by ERS were the funding to begin at date of hire.
15. *Present Value* - the actuarially determined lump sum value as of the valuation date of a series of payments to be made in the future, where the lump sum value is equal to the sum of the discounted value of each future payment. The discounted value of each payment is the product of (a) the amount of the payment, (b) the probability that the payment will be made (based on the current actuarial assumptions as to future experience), and (c) the time value of money (based on the current assumed interest rate).
16. *Unfunded Actuarial Accrued Liability* - that portion of the actuarial accrued liability (including the present value of benefits presently being paid to retired members) that exceeds the value of current assets.
17. *Covered Payroll* - the total annualized payroll of active members as of the valuation date. Used to project individual members pay and benefits.
18. *Projected Payroll for Contributions Purposes* - The aggregate projected payroll for the fiscal year following the valuation date is calculated by increasing the actual payroll paid during the previous fiscal year by the payroll growth rate and multiplying by the ratio of current active members to the average number of active members during the previous fiscal year.