

Employees' Retirement System of the County of Milwaukee

Actuarial Valuation and Review as of January 1, 2024

May 2024

This report has been prepared at the request of the Board of Trustees to assist in administering the System. This valuation report may not be copied or reproduced in any form without the consent of the Board of Trustees and may only be provided to other parties in its entirety, unless expressly authorized by Segal. The measurements shown in this actuarial valuation may not be applicable for other purposes.





101 North Wacker Drive,
Suite 500
Chicago, IL 60606-1724
segalco.com

May 31, 2024

Board of Trustees
Employees' Retirement System of the County of Milwaukee
901 North 9th Street
Milwaukee, Wisconsin 53233

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of January 1, 2024, of the Employees' Retirement System of the County of Milwaukee. This report summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and, as required by the Retirement Code, is the basis for the Actual Funding Contribution for fiscal year 2024 and the Budget Contribution for fiscal year 2025.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Retirement System. The census information and financial information on which our calculations were based was prepared by the Retirement Plan Services (RPS) office. That assistance is gratefully acknowledged.

The actuarial calculations were directed under the supervision of Matthew Strom and Geoff Bridges. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the System.

We look forward to reviewing this report and to answering any questions at an upcoming Board meeting.

Sincerely,

A handwritten signature in black ink that reads "Matthew A. Strom".

Matthew A. Strom, FSA, MAAA, EA
Senior Vice President and Actuary

A handwritten signature in black ink that reads "Geoff Bridges".

Geoff Bridges, FSA, MAAA, EA
Vice President and Consulting Actuary

Table of Contents

Section 1: Actuarial Valuation Summary.....	5
Purpose and Basis	5
Valuation Highlights.....	6
Section 2: Actuarial Valuation Results	11
A. Membership Data	11
B. Financial Information	15
C. Actuarial Experience	18
D. Changes in the Actuarial Accrued Liability	23
E. Development of Unfunded Actuarial Accrued Liability.....	24
F. Amortization Schedule for Funding.....	25
G. Gross Contribution Requirements.....	27
H. State Mandated Member Contributions.....	28
I. Reconciliation of Budget Contribution Requirement.....	29
J. Contribution for prior year and variance from the funding calculation contribution	30
K. History of Employer Contributions	31
L. Actuarial Balance Sheet.....	32
M. Low -Default-Risk Obligation Measure (LDRM).....	33
N. Risk.....	34
Section 3: Supplemental Information	36
Exhibit A – Table of Plan Coverage.....	36
Exhibit B – Reconciliation of Membership Data.....	37
Exhibit C – Summary Statement of Income and Expenses on a Market Value Basis	38

Exhibit D – Summary Statement of Plan Assets	39
Exhibit E – Development of the Fund Through December 31, 2023	40
Exhibit F – Definition of Pension Terms	41
Section 4: GASB 67 and 68 Information	44
Exhibit 1 – Net Pension Liability	44
Exhibit 2 – Schedules of Changes in Net Pension Liability	48
Exhibit 3 – Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions	49
Exhibit 4 – Pension Expense	51
Section 5: Actuarial Valuation Basis	52
Exhibit I – Actuarial Assumptions and Actuarial Cost Method	52
Exhibit II – Summary of Plan Provisions	62
Section 6: Additional Summary Tables of Member Data	69

Section 1: Actuarial Valuation Summary

Purpose and Basis

This report is prepared by Segal to present a valuation of the Plan as of January 1, 2024. The valuation is performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The measurements shown in this actuarial valuation may not be applicable for other purposes. In particular, the measures herein are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

Certain disclosure information required by GASB Statements Nos. 67 and 68 as of December 31, 2023, for the System and the County is provided in Section 4.

The contribution requirements presented in this report are based on:

- The benefit provisions of the Pension Plan, as outlined in Chapter 201.24 of the County Code and administered by the Board;
- The characteristics of covered active members, inactive members, and retired members and beneficiaries as of January 1, 2024, provided by RPS;
- The unaudited assets of the Plan as of December 31, 2023, provided by RPS;
- Economic assumptions regarding future salary increases and investment earnings;
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.; and
- The System's funding policy.

Valuation Highlights

1. Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the unfunded actuarial accrued liability and the principal balance. The System's funding policy meets this standard.
2. Actual employer contributions made during the fiscal year ending December 31, 2023, were \$58,029,539. When combined with the employee contributions of \$14,098,461 and interest to the end of the year, the total contributions exceeded the actuarially determined contribution (referred to as the Actual Funding Contribution) for 2023 by \$1,877,212.
3. The results of this January 1, 2024, actuarial valuation are used to determine the Actual Funding Contribution for the fiscal year ending December 31, 2024, and the Budget Contribution for the fiscal year ending December 31, 2025. The Actual Funding Contribution for the year ending December 31, 2024 is \$84,329,445 an increase of \$11,392,945 from the Actual Funding Contribution for the year ending December 31, 2023. The amortization bases of the unfunded actuarial accrued liability are shown in Section 2, Exhibit F of this report.
4. The 2025 Budget Contribution, expected to be contributed in 2025, is \$85,466,000.
5. The funded ratio (the ratio of the actuarial value of assets to actuarial accrued liability) is 70.1%, compared to the prior year's funded ratio of 77.5%. This ratio is one measure of funding status, and its history is a measure of funding progress. Using the market value of assets, the funded ratio is 70.1%, compared to 72.9% as of the prior valuation date. These measurements are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the System's benefit obligation or the need for or the amount of future contributions.
6. The rate of return on the market value of assets was 10.67% for the January 1, 2023 to December 31, 2023 plan year. The return on the actuarial value of assets was 6.19% for the same period due to the recognition of prior years' investment gains and losses before the actuarial value of assets was reset to equal the market value of assets. This resulted in an actuarial loss when measured against the assumed rate of return of 7.50%. We advise the Board to continue to monitor actual and anticipated investment returns relative to the assumed long-term rate of return on investments.
7. The actuarial value of assets is 102.39% of the market value of assets before the actuarial value of assets was reset to the market value of assets and 100% afterwards.
8. The final unfunded actuarial accrued liability is \$729,360,414 on an actuarial value basis which is an increase of \$215,298,789 since the prior valuation.
9. The actuarial loss from investment experience is \$22,349,025.
10. The net experience loss from sources other than investment experience was approximately 0.38% of the actuarial accrued liability. Additional detail regarding this loss is shown in Section 2, Exhibit C.

11. Actuarial assumptions were changed to reflect the experience study completed by Segal for the period January 1, 2017, through December 31, 2021 and approved by the board. These include:
 - Salary scale
 - Mortality tables
 - Retirement rates
 - Termination rates
 - Disabled retirement rates
 - Spouse information
 - Benefit election
 - Back drop election

The investment return assumption was updated to 6.80% from 7.50% to reflect the enactment of Act 12.

12. Funding methods were also changed to reset the actuarial value of assets to the market value of assets and to reestablish the Unfunded Actuarial Accrued Liability with a new base for the January 1, 2024 valuation.
13. Plan provisions were changed in response to the enactment of Act 12, in which member contributions were updated from 50% of the Actuarially Determined Contributions to 50% of the Normal Cost for active members.
14. This report constitutes an actuarial valuation for the purpose of determining the actuarially determined contribution under the Plan's funding policy and measuring the progress of that funding policy. The Net Pension Liability (NPL) and Pension Expense under Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68, for inclusion in the plan and employer's financial statements as of January 1, 2023 and January 1, 2024, is shown in Section 4 of this report. The Actual Funding Contribution in this valuation is expected to be used as the actuarially determined contribution (ADC) for GASB financial reporting.
15. This actuarial report as of January 1, 2024, is based on financial and demographic data as of that date. Changes subsequent to that date are not reflected and will affect future actuarial costs of the Plan.

Summary of Key Valuation Results

		2024	2023
Actuarially determined contributions:	• Actual Funding Contribution for fiscal 2024 (and 2023)	\$84,329,445	\$72,936,500
	• Amount actually contributed for fiscal 2024 (and 2023)	TBD	72,128,000
	• Budget Contribution for fiscal 2025 (and 2024)	\$85,466,000	\$83,504,000 ¹
Actuarial accrued liability for plan year beginning January 1:	• Retired participants and beneficiaries	\$1,940,263,439	\$1,857,775,008
	• Inactive vested participants	89,428,341	90,920,480
	• Active participants	406,262,443	337,275,712
	• Total	2,435,954,223	2,285,971,200
	• Employer normal cost for plan year beginning January 1 (as of January 1)	25,027,462	18,410,957
Assets for plan year beginning January 1:	• Market value of assets (MVA)	\$1,706,593,809	\$1,665,958,039
	• Actuarial value of assets (AVA)	1,706,593,809	1,771,909,575
	• Actuarial value of assets as a percentage of market value of assets	100.0%	106.4%
Funded status for plan year beginning January 1:	• Unfunded actuarial accrued liability based on MVA	\$729,360,414	\$620,013,161
	• Funded percentage on MVA basis	70.06%	72.88%
	• Unfunded actuarial accrued liability based on AVA	\$729,360,414	\$514,061,625
	• Funded percentage on AVA basis	70.06%	77.51%
	• Remaining amortization period (average)	30	14
Key assumptions:	• Interest rate for determining liability as of January 1	6.80%	7.50%
	• Inflation rate	2.50%	2.50%
	• Interest rate for Budget Contribution for fiscal 2025 (and 2024)	6.80%	7.50%
Demographic data for plan year beginning January 1:	• Number of retired members and beneficiaries	7,753	7,819
	• Number of vested former members	1,233	1,309
	• Number of active members	3,480	3,215
	• Total payroll	\$229,657,792	\$205,806,761
	• Average pay	65,994	64,015

¹ Budget Contribution for fiscal 2024 was recalculated after the January 1, 2023 valuation per an analysis completed later that year. Please see Segal letter dated November 9, 2023.

Important Information About Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the Plan will be determined by the actual benefits and expenses paid and the actual investment experience of the Plan.

To prepare a valuation, Segal relies on a number of input items. These include:

Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Membership data	An actuarial valuation for a plan is based on data provided to the actuary by the System. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	The valuation is based on the market value of assets as of the valuation date, as provided by the System. The System uses an “actuarial value of assets” that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan’s assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.
Modeling	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Deterministic cost projections are based on a proprietary forecasting model. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the direction of the supervising actuary.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the System and Board of Trustees. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- Actuarial results in this report are not rounded, but that does not imply precision.
- If the System is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The System should look to its other advisors for expertise in these areas.

As Segal has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

Section 2: Actuarial Valuation Results

A. Membership Data

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active members, inactive members, retired members and beneficiaries. This section presents a summary of significant statistical data on these participant groups.

As shown below, the ratio of non-active members to active members has been generally increasing. This increases the risks associated with the plan as the liabilities and costs are larger relative to the payroll of the active members in the plan.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A and B.

Member Population: 2015 – 2024

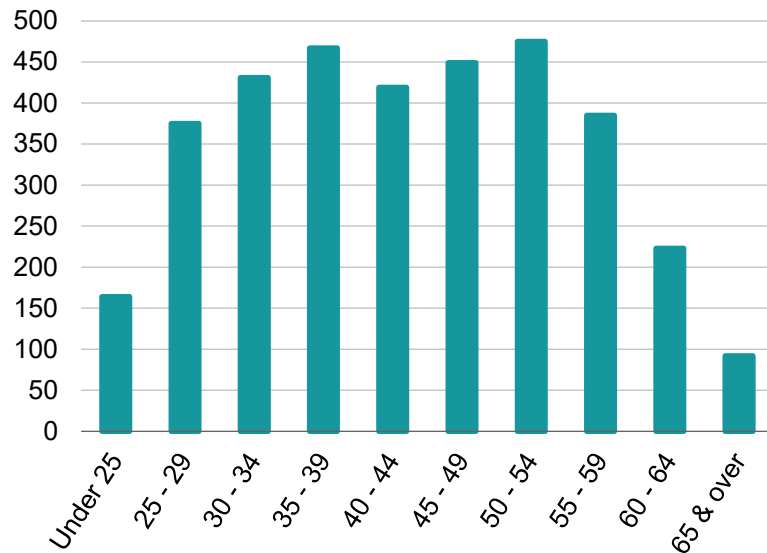
As of January 1	Active Members	Vested Terminated Members	Retired Members and Beneficiaries	Total Non-Actives	Ratio of Non-Actives to Actives
2015	3,680	1,370	7,979	9,349	2.54
2016	3,619	1,387	7,991	9,378	2.59
2017	3,488	1,394	8,063	9,457	2.71
2018	3,502	1,371	8,037	9,408	2.69
2019	3,425	1,313	8,042	9,355	2.73
2020	3,561	1,293	8,001	9,294	2.61
2021	3,529	1,262	7,886	9,148	2.59
2022	3,325	1,305	7,829	9,134	2.75
2023	3,215	1,309	7,819	9,128	2.84
2024	3,480	1,233	7,753	8,986	2.58

Active Members

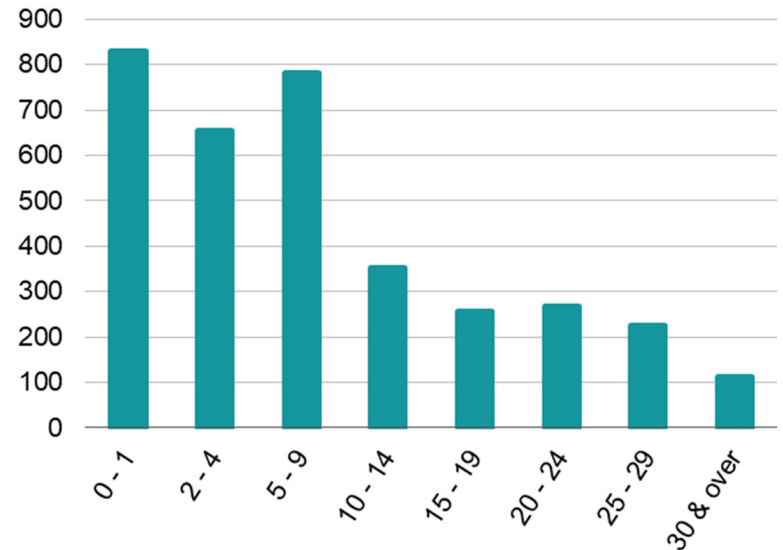
Plan costs are affected by the age, years of creditable service and payroll of active members. In this year's valuation, there are 3,480 active members with an average age of 43.7, average years of benefit service of 8.7, and average pay of \$65,994. The 3,215 active members in the prior valuation had an average age of 44.4, average benefit service of 9.3 years, and average pay of \$64,015.

Distribution of Active Members as of January 1, 2024

ACTIVES BY AGE



ACTIVES BY YEARS OF CREDITED SERVICE



Inactive Members

In this year's valuation, there are 1,233 inactive members with a vested right to a deferred or immediate benefit. Average monthly annuities for these members are \$746. For comparison, in the previous valuation, there were 1,309 inactive members with a vested right to a deferred or immediate benefit. Average monthly annuities for these members were \$707.

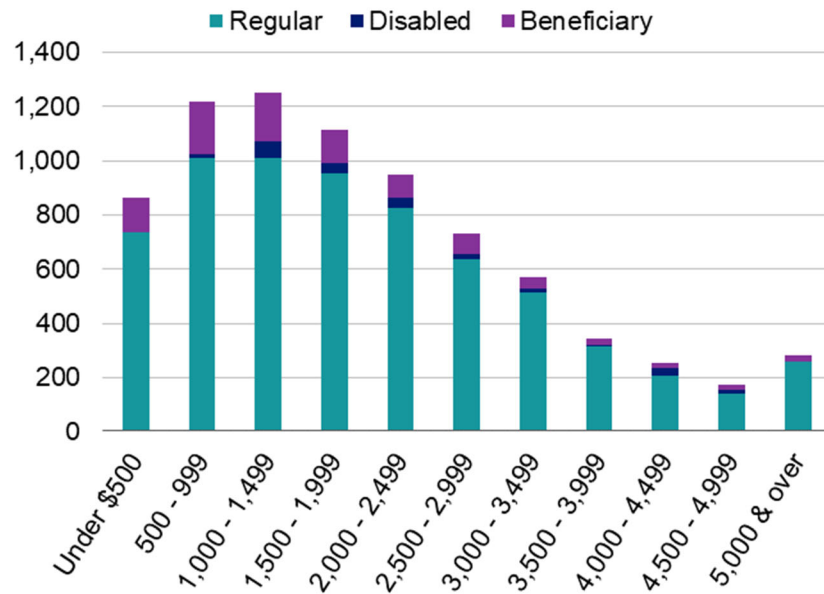
Retired Members and Beneficiaries

As of January 1, 2024, 6,842 retired members (including disability retirees) and 911 beneficiaries are receiving total monthly benefits of \$15,543,462. For comparison, in the previous valuation, there were 6,905 retired members and 914 beneficiaries receiving monthly benefits of \$15,500,044.

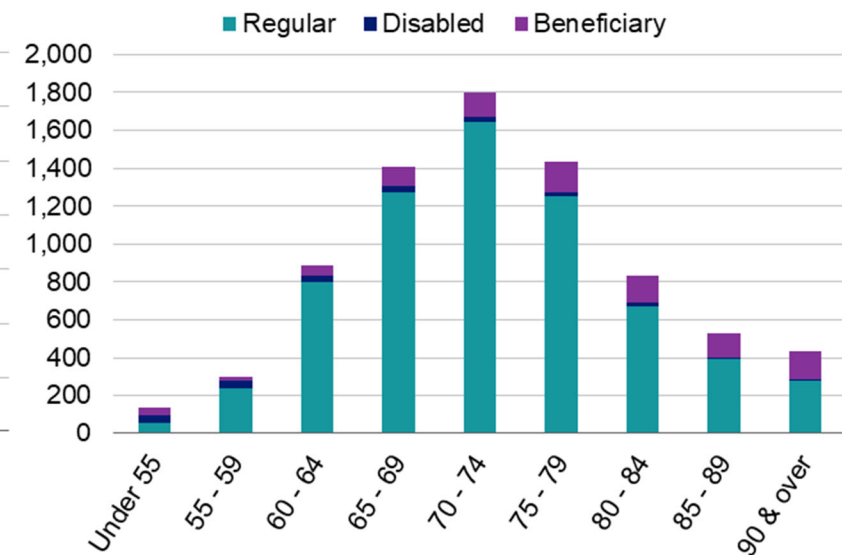
As of January 1, 2024, the average monthly benefit for retired and disabled members is \$2,048, compared to \$2,030 in the previous valuation. The average age for retired members is 73.3 in the current valuation, compared with 73.1 in the prior valuation.

Distribution of Pensioners as of January 1, 2024

PENSIONERS BY TYPE AND MONTHLY AMOUNT



PENSIONERS BY TYPE AND AGE



Historical Plan Population

The chart below demonstrates the progression of the active population over the last ten years. The chart also shows the growth among the retired population over the same time period.

Membership Data Statistics: 2015 – 2024

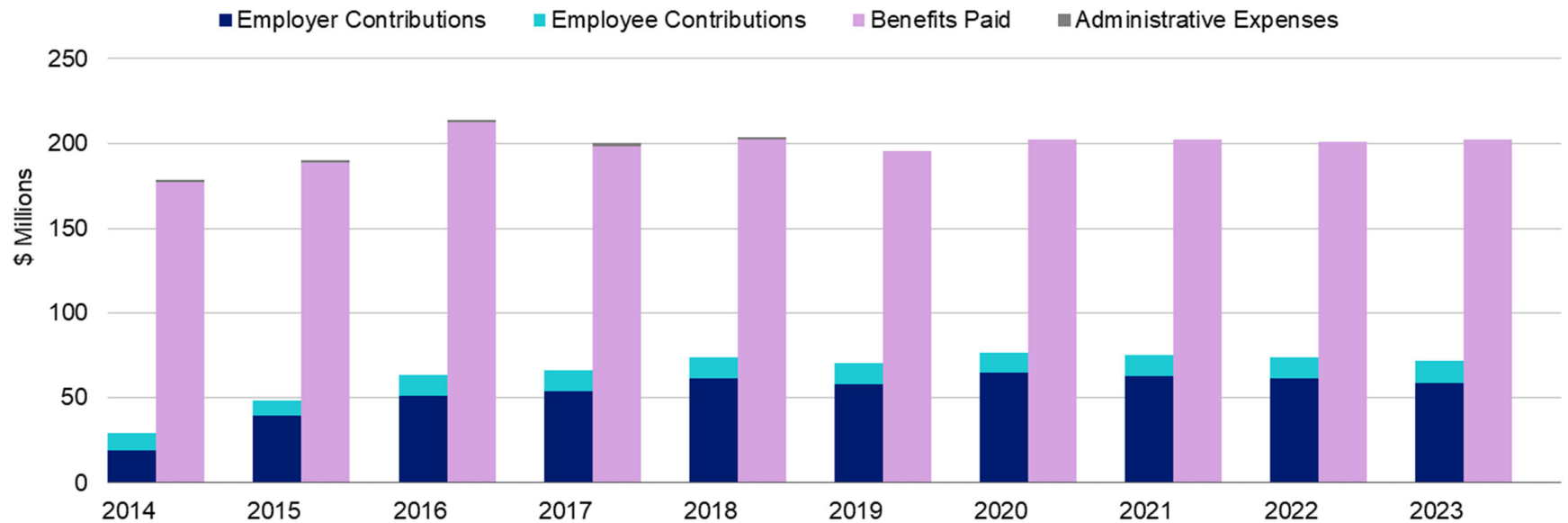
As of January 1	Active Members			Retired Members		
	Count	Average Age	Average Service	Count	Average Age	Average Monthly Amount
2015	3,680	46.0	11.7	7,092	70.8	1,782
2016	3,619	45.7	11.4	7,077	71.0	1,829
2017	3,488	45.2	10.3	7,147	71.1	1,868
2018	3,502	45.0	10.3	7,128	71.3	1,893
2019	3,425	44.8	10.0	7,122	71.5	1,920
2020	3,561	44.3	9.4	7,088	71.8	1,949
2021	3,529	44.5	9.4	6,975	72.2	1,981
2022	3,325	44.7	9.6	6,916	72.5	2,007
2023	3,215	44.4	9.3	6,905	72.7	2,030
2024	3,480	43.7	8.7	6,842	73.1	2,048

B. Financial Information

Retirement plan funding anticipates that, over the long term, both contributions and investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments. Retirement plan assets change as a result of the net impact of these income and expense components. The System’s negative cash flow (approximately \$130 million in 2023) also affects expected investment returns.

Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits C, D and E.

**Comparison of Contributions to Benefits and Expenses Paid
For Years Ended December 31, 2014 – 2023**



It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has adopted an asset smoothing method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuation is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Determination of Actuarial Value of Assets for Year Ended December 31, 2023

1 Market value of assets, December 31, 2023			\$1,706,593,809
	Original	Percent	Unrecognized
2 Calculation of unrecognized return	Amount **	Deferred	Amount***
(a) Year ended December 31, 2023*	\$50,702,220	90%	\$45,631,998
(b) Year ended December 31, 2022	-320,463,961	80	-256,371,168
(c) Year ended December 31, 2021	174,424,625	70	122,097,241
(d) Year ended December 31, 2020	53,834,842	60	32,300,904
(e) Year ended December 31, 2019	124,974,770	50	62,487,385
(f) Year ended December 31, 2018	-170,935,242	40	-68,374,096
(g) Year ended December 31, 2017	121,516,124	30	36,454,836
(h) Year ended December 31, 2016	-23,448,242	20	-4,689,648
(i) Year ended December 31, 2015	-103,841,093	10	-10,384,109
(j) Year ended December 31, 2014	-50,790,631	0	0
(k) Total unrecognized			-40,846,657
3 Actuarial value of assets as of December 31, 2023, before actuarial value was reset to the market value of assets:		(1) - (2k)	<u>\$1,747,440,466</u>
4 Actuarial value as a percentage of market value, before reset:		(3) ÷ (1)	102.39%
5 Actuarial value of assets as of December 31, 2023, after actuarial value was reset to the market value of assets:		(1)	<u>\$1,706,593,809</u>
6 Actuarial value as a percentage of market value, after reset:		(1) ÷ (1)	<u>100.00%</u>

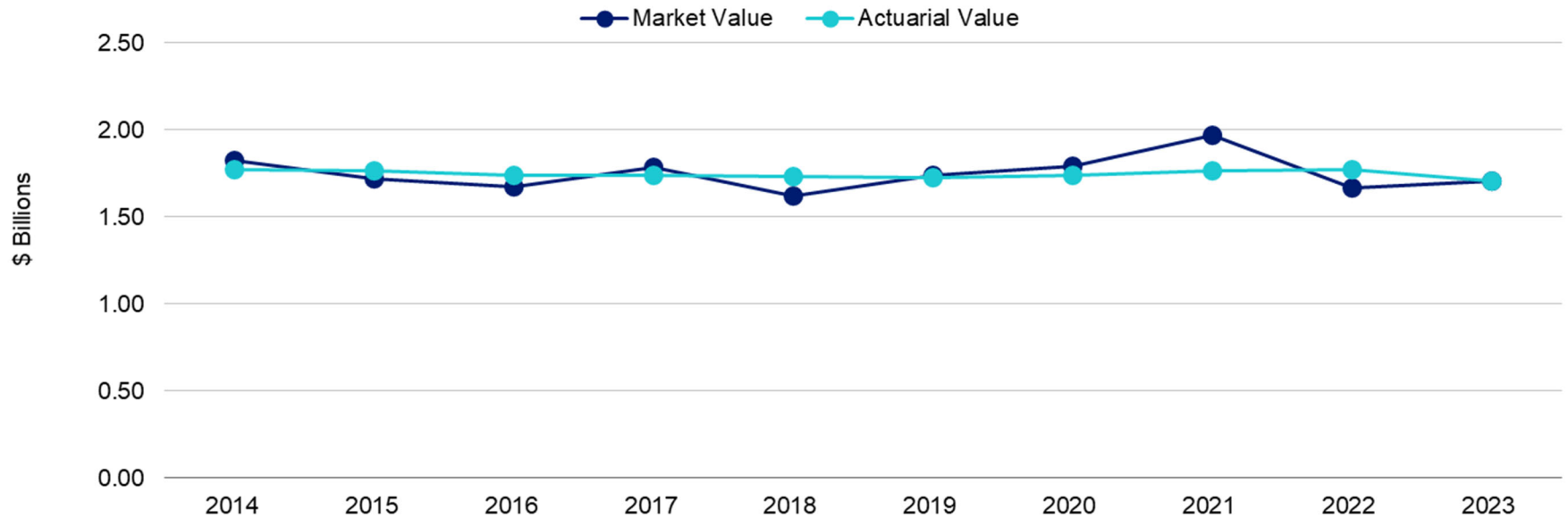
* Derivation of gain/(loss) for the year ending December 31, 2023 is shown on page 19

**Total return minus expected return on a market value basis

***Recognition at 10% per year over ten years

Both the actuarial value and market value of assets are representations of the Plan's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the Plan's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

Actuarial Value of Assets vs. Market Value of Assets as of December 31, 2014 – 2023



C. Actuarial Experience

To calculate the actuarially determined contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single years' experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The net experience loss is \$30,973,973, which includes \$23,349,025 from investment losses and \$8,624,948 in losses from all other sources. The net experience variation from individual sources other than investments was 0.38% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

Actuarial Experience for Year Ended December 31, 2023

1	Net gain/(loss) from investments*	(\$22,349,025)
2	Net gain/(loss) from other experience	(\$8,624,948)
3	Net experience gain/(loss): 1 + 2	(\$30,973,973)

* Details on next page.

Investment Experience

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the System’s investment policy. The rate of return on the market value of assets was 10.67% for the year ended December 31, 2023.

For valuation purposes, the assumed rate of return on the actuarial value of assets was 7.50%. The actual rate of return on an actuarial basis for the 2023 plan year was 6.18%. Since the actual return for the year was less than the assumed return, the Plan experienced an actuarial loss during the year ended December 31, 2023 with regard to its investments.

Investment Experience

	Year Ended December 31, 2023		Year Ended December 31, 2022	
	Market Value	Actuarial Value	Market Value	Actuarial Value
1 Investment income	\$170,797,806	\$105,692,927	-\$177,417,288	\$135,405,431
2 Average value of assets	1,601,274,484	1,707,226,020	1,907,288,979	1,700,417,796
3 Rate of return: 1 ÷ 2	10.67%	6.19%	-9.30%	7.96%
4 Assumed rate of return	7.50%	7.50%	7.50%	7.50%
5 Expected investment income: 2 x 4	120,095,586	128,041,952	143,046,673	127,531,335
6 Actuarial gain/(loss): 1 – 5	<u>\$50,702,220</u>	<u>-\$22,349,025</u>	<u>-\$320,463,961</u>	<u>\$7,874,096</u>

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The table below shows the rate of return on an actuarial basis compared to the market value investment return for the last 20 years, including averages over select time periods.

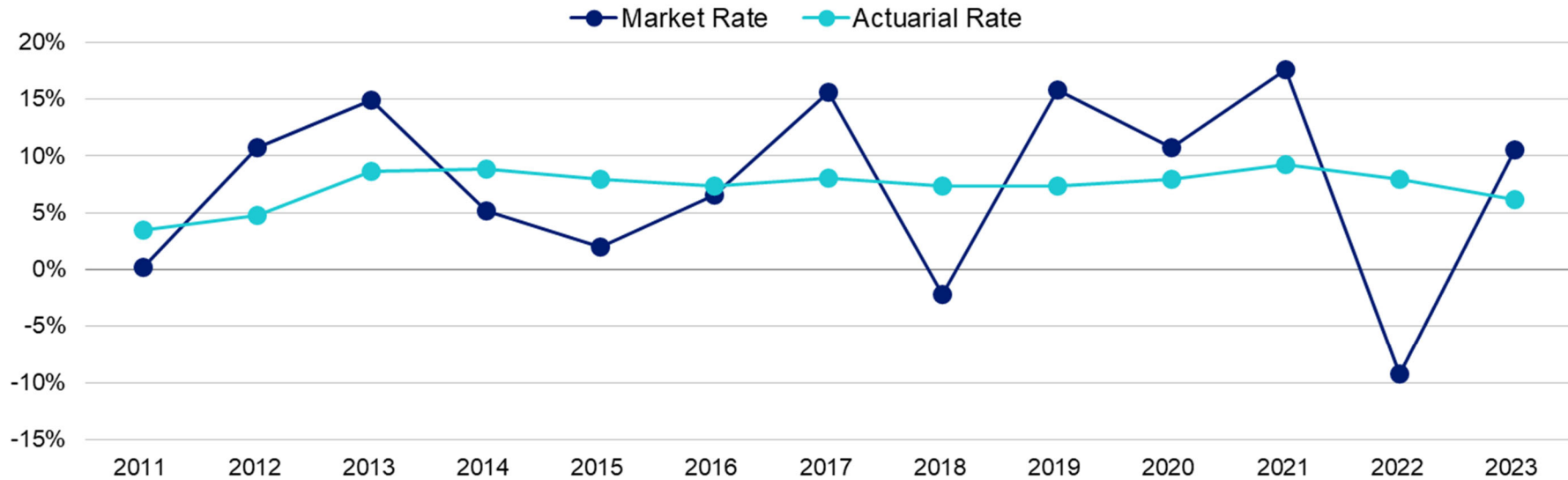
Investment Return – Actuarial Value vs. Market Value: 2004 – 2023

Year Ended Dec. 31	Actuarial Value Investment Return		Market Value Investment Return		Year Ended Dec. 31	Actuarial Value Investment Return		Market Value Investment Return		
	Amount	Percent	Amount	Percent		Amount	Percent	Amount	Percent	
2004	\$106,051,092	7.67%	\$184,521,294	12.91%	2014	\$150,527,504	8.87%	\$92,284,293	5.15%	
2005	142,925,632	10.45	123,206,736	8.25	2015	135,399,964	7.95	35,190,400	2.01	
2006	174,981,665	12.48	202,170,056	13.41	2016	124,121,244	7.34	106,649,356	6.50	
2007	193,083,715	13.05	98,642,968	6.12	2017	133,662,416	8.04	249,003,287	15.63	
2008	53,668,265	3.03	-357,462,777	-22.44	2018	121,956,182	7.31	-38,060,799	-2.22	
2009	74,459,006	3.87	313,462,671	20.19	2019	122,175,139	7.32	245,570,699	15.78	
2010	104,127,935	5.51	203,770,758	11.60	2020	132,695,030	7.96	179,567,176	10.71	
2011	64,214,736	3.47	\$4,039,718	0.22	2021	154,153,737	9.21	304,173,201	17.58	
2012	84,397,065	4.79	178,833,104	10.74	2022	135,405,431	7.96	-177,417,288	-9.30	
2013	\$146,900,302	8.66	253,385,088	14.93	2023	105,692,927	6.19	170,797,806	10.67	
Most recent five-year average return							7.73%	8.63%		
Most recent ten-year average return							7.81%	6.93%		
Most recent fifteen-year average return							6.95%	8.38%		
Most recent twenty-year average return							5.17%	6.92%		

Note: Each year's yield is weighted by the average asset value in that year.

Subsection B described the actuarial asset smoothing method that gradually recognizes fluctuations in the market value rate of return. The goal of this is to stabilize the actuarial rate of return and to produce more level pension plan costs.

Market and Actuarial Rates of Return for Years Ended December 31, 2011 - 2023



Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among participants,
- retirement experience (earlier or later than projected),
- mortality (more or fewer deaths than projected),
- the number of disability retirements (more or fewer than projected), and
- salary increases (greater or smaller than projected).

The net loss from this other experience for the year ended December 31, 2023, amounted to \$8,624,948, which is 0.38% of the actuarial accrued liability.

Experience Gain/(Loss) Due to Demographics For Year Ended December 31, 2023

Net turnover	-\$1,545,970
Retirement	11,813,253
Mortality (more deaths than expected)	3,536,164
Disability retirements	-74,355
Salary increase for continuing actives	-4,895,379
Miscellaneous	<u>-17,458,661</u>
Total	-<u>\$8,624,948</u>

D. Changes in the Actuarial Accrued Liability

The actuarial accrued liability as of January 1, 2024, is \$2,435,954,223, a decrease of \$149,983,023, or 6.6%, from the actuarial accrued liability as of the prior valuation date. The liability is expected to grow each year with normal cost and interest, and to decline due to benefit payments made. Additional fluctuations can occur due to actual experience that differs from expected (as discussed in the previous subsection).

Actuarial Assumptions

- The Board adopted assumption changes that will be effective for the January 1, 2024 valuation as a result of the experience study adopted by the board. These changes include:
 - Investment return
 - Salary scales
 - Mortality tables,
 - Retirement rates
 - Termination rates
 - Disabled retirement rates
 - Spouse information
 - Benefit election
 - Backdrop election

The investment return assumptions was updated to 6.8% from 7.50% to reflect the enactment of Act 12.

- Funding methods were also changed to reset the actuarial value of assets to the market value of assets and to reestablish the Unfunded Actuarial Accrued Liability with a new base for the January 1, 2024 valuation.
- Details on actuarial assumptions and methods are in Section 5, Exhibit I.

Plan Provisions

- In response to Act 12, member contributions were updated from 50% of the Actuarially Determined Contributions to 50% of the Normal Cost for active members.
- A summary of plan provisions is in Section 5, Exhibit II.

E. Development of Unfunded Actuarial Accrued Liability

Development of Unfunded Actuarial Accrued Liability For Year Ended December 31, 2023

1	Unfunded actuarial accrued liability at beginning of year	\$514,061,625
2	Normal cost at beginning of year	18,410,957
3	Total contributions	-72,128,000
4	Interest	
	• For whole year on 1 + 2	\$39,935,443
	• For partial year on 3 (See <i>Exhibit J</i>)	<u>-2,685,712</u>
	Total interest	37,249,732
5	Expected unfunded actuarial accrued liability	\$497,594,313
6	Changes due to:	
	• Experience (gain)/loss	30,973,973
	• Assumptions	159,945,471
	• Funding method	40,846,657
	• Plan provisions	<u>0</u>
	Total changes	<u>\$231,766,101</u>
7	Unfunded actuarial accrued liability at end of year	<u>\$729,360,414</u>

F. Amortization Schedule for Funding

The actuarially determined contribution is equal to the employer normal cost payment and a payment on the unfunded actuarial accrued liability (UAAL). Payments towards the UAAL are determined by amortizing sources of UAAL over various time periods, with amounts determined as a level percentage of payroll. The UAAL payment was reestablished on January 1, 2024 and amortized over 30 years. Future unanticipated increases in UAAL are amortized over closed 20-year periods. UAAL arising from contribution variances are amortized over closed 5-year periods. Amortization payments are assumed to remain flat at a “level dollar” amount, which reflects the anticipated increases in the County’s tax base.

Actual Funding Contribution Amortization Schedule for 2024

Type	Date Established	Initial Period	Initial Amount	Annual Payment	Years Remaining	Outstanding Balance
Reestablished UAAL	01/01/2024	30	\$729,360,414	\$53,932,692	30	\$729,360,414
Total				\$53,932,692		\$729,360,414

Payments for the subsequent year Budget Contribution are determined by rolling forward the outstanding balance and payment amounts for existing amortization bases, and estimating the amounts of any new sources of UAAL.

Budget Contribution Amortization Schedule for 2025

Type	Date Established	Initial Period	Initial Amount	Annual Payment	Years Remaining	Outstanding Balance
Reestablished UAAL	01/01/2024	30	\$729,360,414	\$53,932,692	29	721,356,807
Contribution Variance	01/01/2025	5	825,444	187,492	5	825,444
Total				\$54,120,184		\$722,182,251

A base for a contribution variance for 2025 is added and amortized over 5 years. This variance is based on the difference between the County’s anticipated contribution and the Actual Funding Contribution for 2024.

G. Gross Contribution Requirements

The actuarially determined contribution is equal to the employer normal cost payment and a payment on the unfunded actuarial accrued liability (as shown in Section 2, Exhibit F). The contribution requirements shown in this report are gross contribution amounts. It is our understanding that County staff will net out the amount of employee contributions that are collected to arrive at a net County contribution.

Gross Contribution Requirements

		Year Beginning January 1		
		2025	2024	
		Budget	Actual	Budget ¹
1	Total normal cost, adjusted to end of year	\$27,665,000	\$26,729,329	\$22,865,000
2	Net annual amortizations, adjusted to end of year	57,801,000	57,600,116	60,639,000
3	Expenses	<u>0</u>	<u>0</u>	<u>0</u>
4	Total contribution: 1 + 2 + 3, not less than zero	85,466,000	84,329,445	\$83,504,000

The Actual Funding Contribution and 2025 Budget Contribution are based on participant data as of January 1, 2024.

For the 2025 Budget Contribution, the Normal Cost for 2025 is assumed to be 3.5% higher than the 2024 Normal Cost.

The amounts shown above are gross contribution amounts. It is our understanding that the County staff will net out the amount of employee contributions that are collected to arrive at net employer contributions.

¹ Budget Contribution for fiscal 2024 was recalculated after the January 1, 2023 valuation per an analysis completed later that year. Please see Segal letter dated November 9, 2023.

H. State Mandated Member Contributions

The following table develops the member contribution rates for 2025. Public Safety and General employees contribute 50% of the normal cost for active members. The rates exclude any amortization of the Unfunded Actuarial Accrued Liability.

Member Contribution Rates

	Public Safety*	General	All Members
Projected Member Contribution for 2025			
1 Normal cost with interest	4,910,489	21,818,841	26,729,330
2 Member contribution (50% of 1a for Contributors)	2,455,245	10,909,421	13,364,666
3 Expected salaries in 2024	26,121,046	203,536,746	229,657,792
4 Member contribution rate: $2 \div 3 \div 1.068^{1/2}$	9.1%	5.2%	N/A

* The actives in the Public Safety group include 338 members comprised of Firefighters, Sheriffs and Non-Represented Sheriffs.

I. Reconciliation of Budget Contribution Requirement

The chart below details the changes in the Budget Contribution requirement from the prior valuation to the current year's valuation.

Reconciliation of Budget Contribution Requirement From 2024 to 2025

		Amount
1	2024 Budget Contribution	\$83,504,000
2	Increase/(decrease) during 2023 due to:	
	a) Unanticipated liability loss/(gain) with interest / normal cost more (less) than projected	\$220,000
	b) Asset experience different than expected	0
	c) 2023 expenses other than assumed	0
	d) 2023 contribution variance other than assumed	605,000
	e) Change due to assumption/method/plan changes	0
	f) Total	<u>\$825,000</u>
3	2024 Actual Contribution (rounded): 1 + 2	\$84,329,000
4	Expected increase/(decrease) during 2024 due to:	
	a) Normal cost and existing amortization bases	\$937,000
	b) Phase-in of deferred investment (gains) losses	0
	c) Increase in expenses	0
	d) Expected contribution variance for 2024	200,000
	e) Full recognition of bases	0
	f) Change due to assumption/method/plan changes	0
	g) Total	<u>\$1,137,000</u>
5	2025 Budget Contribution: 3 + 4	\$85,466,000

J. Contribution for prior year and variance from the funding calculation contribution

Differences between the Actual Funding Contribution and the County's actual contributions with interest are amortized over five year periods using a level dollar basis. The following exhibit shows the calculation of the contribution variance for the 2023 plan year.

Calculation of Contribution Variance

		Item			Amount
1	Total Actual Funding Contribution, end-of-year basis, for 2023 plan year (from January 1, 2023 actuarial valuation report)				\$72,936,500
2	Total employer contributions made:				
	Contribution Made	Fraction of a Year Invested	Contribution Amount	Interest to Year End**	End of Year Amount
	Bi-weekly		\$0	\$0	\$0
	06/30/2023*	50.7%	<u>58,029,539</u>	<u>2,166,578</u>	<u>60,196,117</u>
	Total		\$58,029,539	\$2,166,578	\$60,196,117
3	Total member contributions made:				
	Contribution Made	Fraction of a Year Invested	Contribution Amount	Interest to Year End**	End of Year Amount
	Bi-weekly	50.0%	\$14,098,461	\$519,134	\$14,617,595
4	Variance from funding calculation amount: 2 + 3 - 1				-\$1,877,212

* Assumed employer contributions are made mid-year.

** Interest to December 31, 2023 at 7.50% per annum

K. History of Employer Contributions

A history of the most recent years of contributions is shown below. Amounts contributed do not reflect interest.

History of Employer Contributions: 2008 – 2024

Fiscal Year Ended Dec. 31	Normal Cost with Interest	Net Amortization Payments	Expenses	Actuarially Determined Contribution	Amount Contributed	Percent Contributed
2008	\$21,012,737	\$32,050,873	N/A	\$53,063,610	\$34,981,095	65.92%
2009	21,395,539	8,959,996	N/A	30,355,535	60,123,920	198.07%
2010	20,736,844	6,813,146	N/A	27,549,990	32,969,145	119.67%
2011	19,480,089	7,327,948	N/A	26,808,037	31,589,401	117.84%
2012	14,488,711	10,386,482	N/A	24,875,193	27,451,148	110.36%
2013	16,105,425	12,164,620	N/A	28,270,045	30,952,781	109.49%
2014	15,235,436	14,329,489	N/A	29,564,925	29,057,000	98.28%
2015	16,999,506	39,300,143	\$1,554,175	57,853,824	48,405,459	83.67%
2016	17,381,870	44,459,669	1,225,857	63,067,396	63,769,182	101.11%
2017	16,405,955	47,838,754	1,554,742	65,799,451	65,991,000	100.29%
2018	17,105,095	52,640,182	1,677,304	71,422,581	72,194,000	101.08%
2019	17,024,645	52,974,997	0	69,999,642	70,533,656	100.76%
2020	18,657,660	55,930,743	0	74,588,403	76,901,000	103.10%
2021	18,912,234	55,123,191	0	74,035,425	75,504,000	101.98%
2022	19,197,215	53,296,363	0	72,493,578	74,238,000	102.41%
2023	19,791,779	53,144,721	0	72,936,500	72,128,000	101.12%
2024	26,729,329	57,769,673	0	84,329,445	TBD	TBD

L. Actuarial Balance Sheet

An overview of the Plan’s funding is provided by an Actuarial Balance Sheet, which compares the total liabilities (current and future) to the total assets (current and future). The liabilities are calculated by determining the amount and timing of all future payments that will be made by the Plan for current participants. These payments are discounted at the valuation interest rate to the date of the valuation, thereby determining the present value of all benefits, referred to as the “liability” of the Plan.

Second, this liability is compared to the assets. The “assets” for this purpose include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments for the unfunded actuarial accrued liability.

Actuarial Balance Sheet

	Valuation as of	
	January 1, 2024	January 1, 2023
Liabilities		
• Present value of benefits for retired participants	\$1,940,263,439	\$1,857,775,008
• Present value of benefits for inactive former participants	89,428,341	90,920,480
• Present value of benefits for active participants	<u>553,637,154</u>	<u>451,620,102</u>
Total liabilities	2,583,328,934	2,400,315,590
Assets		
• Total valuation value of assets	\$1,706,593,809	\$1,771,909,575
• Present value of future employer and employee contributions for:		
» Future Normal Costs	147,374,711	114,344,390
» Unfunded actuarial accrued liability	<u>729,360,414</u>	<u>514,061,625</u>
Total of current and future assets	<u>2,583,328,934</u>	<u>2,400,315,590</u>

M. Low -Default-Risk Obligation Measure (LDRM)

In December 2021, the Actuarial Standards Board issued a revision of Actuarial Standard of Practice No. 4 (ASOP 4) Measuring Pension Obligations and Determining Pension Plan Costs or Contributions. One of the revisions to ASOP 4 requires the disclosure of a Low-Default-Risk Obligation Measure (LDRM) when performing a funding valuation. The LDRM presented in this report is calculated using the same methodology and assumptions used to determine the Actuarial Accrued Liability (AAL) used for funding, except for the discount rate. The LDRM is required to be calculated using “a discount rate...derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future.”

The LDRM is a calculation assuming a plan’s assets are invested in an all-bond portfolio, generally lowering expected long-term investment returns. The discount rate selected and used for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index Rate, published at the end of each week. The last published rate in December of the measurement period, by The Bond Buyer (www.bondbuyer.com), is 3.26% for use effective December 31, 2023. This is the rate used to determine the discount rate for valuing reported public pension plan liabilities in accordance with Governmental Accounting Standards when plan assets are projected to be insufficient to make projected benefit payments, and the 20-year period reasonably approximates the duration of plan liabilities. The LDRM is not used to determine a plan’s funded status or Actuarially Determined Contribution. The plan’s expected return on assets, currently 6.80%, is used for these calculations.

As of December 31, 2023, the LDRM for the system is \$3,615,718,172. The difference between the plan’s AAL of \$2,435,954,223 and the LDRM can be thought of as the increase in the AAL if the entire portfolio were invested in low-default-risk securities. Alternatively, this difference could also be viewed as representing the expected savings from investing in the plan’s diversified portfolio compared to investing only in low-default-risk securities.

ASOP 4 requires commentary to help the intended user understand the significance of the LDRM with respect to the funded status of the plan, plan contributions, and the security of participant benefits. In general, if plan assets were invested exclusively in low-default-risk securities, the funded status would be lower and the Actuarially Determined Contribution would be higher. While investing in a portfolio with low-default-risk securities may be more likely to reduce investment volatility and the volatility of employer contributions, it also may be more likely to result in higher employer contributions or lower benefits.

N. Risk

The actuarial valuation results depend on a single set of assumptions; however, there is a risk that emerging results may differ significantly as actual experience proves to be different than projected from the current assumptions.

We have not been engaged to perform a detailed analysis of the potential range of the impact of risks relative to Milwaukee County's future financial condition, but have included a brief discussion of some of the risks that may affect the Plan. A more detailed assessment of the risks could provide a better understanding of the risks inherent in the Plan. This assessment may include scenario testing, sensitivity testing, stress testing, and stochastic modeling. Milwaukee County might consider including stochastic modeling in order to provide a more detailed risk assessment.

A detailed risk assessment could be important for Milwaukee County because:

- The negative cash flow position of the Plan as a percentage of assets could be exacerbated by relatively small deviations from assumed future experience.
- Retired and inactive participants account for more than half of the Plan's liabilities, limiting options for reducing plan liabilities in the event of adverse experience.
- Projected employer contribution amounts may increase to an unsustainable percentage of County budget under adverse stress testing conditions.
- The risks identified below show significant potential for variability.

The following risks could significantly affect the Plans' future condition:

Investment Risk (the risk that returns will be different than expected)

The assets total approximately \$1.71 billion. If the actual market value return for the Plan Year were 1% different from the assumed (either higher or lower), the projected unfunded actuarial liability would change by about \$16.0 million.

If the prior year's investment performance resulted in a market value of assets that is 10% different from the current value, it would result in a change of \$171 million in the asset value. A 10% increase in assets would cause the unfunded liability (market value basis) to decrease from \$729 million to \$559 million. Likewise, a 10% decrease in the asset value, would cause the unfunded liability to increase from \$729 million to \$900 million.

The market value rate of return over the last ten years has ranged from a low of -9.3% to a high of 17.6%.

Longevity Risk (the risk that mortality experience will be different than expected)

The actuarial valuation includes an expectation of future improvement in life expectancy. Emerging plan experience that does not match these expectations will result in either an increase or decrease in the actuarially determined contribution.

A 10% reduction in the assumed mortality rates results in an increase in the liabilities of roughly 3% for most plans. For Milwaukee County, a 3% liability increase would result in an increase in the actuarial funding contribution of \$6.7 million. The actuarial funding contribution would increase from \$84.3 million to \$91.1 million.

Demographic Risk (the risk that participant experience will be different than assumed)

- Examples of this risk include:
- Actual retirements occurring earlier or later than assumed. The value of retirement plan benefits is sensitive to the rate of benefit accruals and any legacy early retirement subsidies that apply.
- More or less active participant turnover than assumed.
- Salary increases more or less than assumed.

Maturity Measures

The risk associated with a pension plan increases as it becomes more mature, meaning that the actives represent a smaller portion of the liabilities of the plan. When this happens, there is a greater risk that fluctuations in the experience of the non-active participants or of the assets of the plan can result in large swings in the contribution requirements.

- Currently the Plan has a non-active to active participant ratio of 2.6. For the prior year, benefits paid were \$130 million more than contributions received. As the Plan continues to mature, more cash will be needed from the investment portfolio to meet benefit payments.
- As of December 31, 2023, the retired life actuarial accrued liability represents 80% of the total actuarial accrued liability. In addition, the actuarial accrued liability for inactive vested participants represents 4% of the total. The higher the non-active actuarial accrued liability is as a percent of the total liability, the greater the risk of volatility in results.

Section 3: Supplemental Information

Exhibit A – Table of Plan Coverage

Category	As of January 1		Change From Prior Year
	2024	2023	
Active members in valuation:			
• Number	3,480	3,215	+8.2%
• Average age	43.7	44.4	-0.7
• Average years of benefit service	8.7	9.3	-0.6
• Total payroll	\$229,657,792	\$205,806,761	+11.6%
• Average pay	65,994	64,015	+3.1%
• Total active vested members	1,864	1,816	+2.6%
Inactive members:			
• Number of terminated vested	1,233	1,309	-5.8%
• Average age	52.0	51.9	+0.1
Retired members:			
• Number in pay status	6,610	6,663	-0.8%
• Average age	73.3	73.0	+0.3
• Average monthly benefit	\$2,036	\$2,020	+0.8%
Disability retirees:			
• Number in pay status	232	242	-4.1%
• Average age	66.0	66.0	+0.0
• Average monthly benefit	\$2,397	\$2,323	+3.2%
Beneficiaries:			
• Number in pay status	911	914	-0.3%
• Average age	78.5	78.4	+0.1
• Average monthly benefit	\$1,674	\$1,618	+3.5%

Exhibit B – Reconciliation of Membership Data

	Active Members	Vested Terminated Members	Disability Retirees	Retired Members	Beneficiaries	Total
• Number as of January 1, 2023	3,215	1,309	242	6,663	914	12,343
• New participants	627	N/A	N/A	N/A	N/A	627
• Terminations – with vested rights	(60)	60	-	-	-	-
• Terminations – without vested rights	(104)	N/A	N/A	N/A	N/A	(104)
• Retirements	(90)	(90)	N/A	180	N/A	-
• New disabilities	(3)	-	3	N/A	N/A	-
• Return to work / rehire	49	(15)	-	-	N/A	34
• Died with beneficiary	-	-	(3)	(49)	52	-
• Died without beneficiary	(3)	(8)	(10)	(189)	(72)	(282)
• Lump sum cash-outs	(151)	(19)	-	-	-	(170)
• Certain period expired	N/A	N/A	-	-	(6)	(6)
• Data adjustments / Show-ups*	-	(4)	-	5	23	24
• Number as of January 1, 2024	3,480	1,233	232	6,610	911	12,466

*Includes records that were not valued in last year's valuation, but are valued this year

Exhibit C – Summary Statement of Income and Expenses on a Market Value Basis

	Year Ended December 31, 2023	Year Ended December 31, 2022
Net assets at market value at the beginning of the year	\$1,665,958,039	\$1,970,367,505
Contribution income:		
• Employer contributions	\$58,029,539	\$60,964,137
• Member contributions	14,098,461	13,273,863
• Less administrative expenses payable to the County	<u>0</u>	0
Net contribution income	72,128,000	74,238,000
Net other income	\$0	\$0
Investment income:		
• Net appreciation in fair value	\$156,128,344	-\$189,512,685
• Interest and dividends	9,433,515	7,177,435
• Securities lending income	128,545	113,696
• Other income	11,233,522	11,352,121
• Less securities lending rebates and fees, net	-41,076	-36,339
• Less administrative expenses payable by System	-4,170,904	-4,302,473
• Less investment expenses	<u>-1,914,140</u>	-2,209,043
Net investment income	<u>\$170,797,806</u>	<u>-\$177,417,288</u>
Total income available for benefits	\$242,925,806	-\$103,179,288
Less benefit payments:		
• Benefits paid to retirees and beneficiaries	-\$199,427,101	-\$197,863,370
• Refunds of contributions	<u>-2,862,935</u>	<u>-3,366,808</u>
Net benefit payments	-\$202,290,036	-\$201,230,178
Change in reserve for future benefits	\$40,635,770	-\$304,409,466
Net assets at market value at the end of the year	\$1,706,593,809	\$1,665,958,039

Exhibit D – Summary Statement of Plan Assets

	December 31, 2023	December 31, 2022
Cash equivalents	\$59,660,611	\$27,707,041
Total accounts receivable	9,443,445	8,692,218
Other assets	40,693,594	37,866,111
Investments:		
• Fixed Income	\$290,824,374	\$231,662,434
• Domestic and international equities	652,923,237	617,916,618
• Private equity	305,895,157	297,651,582
• Diversifying strategies	294,813,540	362,772,756
• Real estate and REITs	<u>103,224,943</u>	<u>127,169,260</u>
Total investments at market value	\$1,647,681,251	\$1,637,172,650
Total assets	\$1,757,478,901	\$1,711,438,020
Total liabilities	-50,885,092	-45,479,981
Net assets at market value	\$1,706,593,809	\$1,665,958,039
Net assets at actuarial value	\$1,706,593,809	\$1,771,909,575

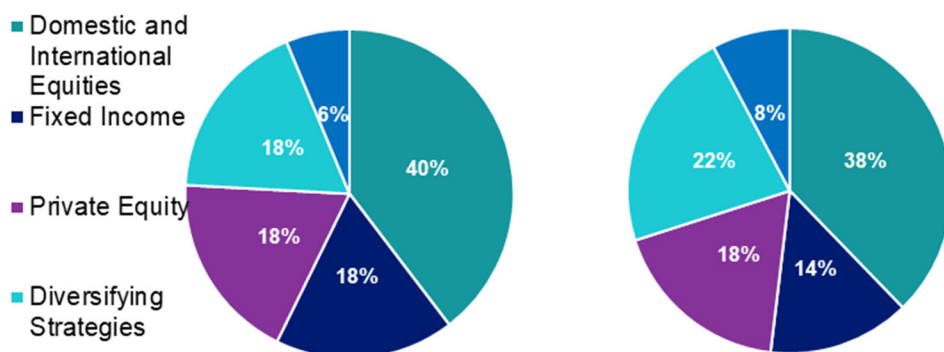


Exhibit E – Development of the Fund Through December 31, 2023

Year Ended Dec. 31	Employer Contributions	Member Contributions	Net Other Income ¹	Net Investment Return ²	Admin. Expenses ³	Benefit Payments ⁴	Market Value of Assets at Year-End	Actuarial Value of Assets at Year-End	Actuarial Value as a Percent of Market Value
2007							\$1,665,511,165	\$1,627,287,632	97.70%
2008	\$34,840,886	\$140,209	\$397,797,000	-\$357,462,777	-\$1,031,291	-\$144,184,222	1,595,610,970	1,968,518,479	123.37%
2009	59,992,154	131,766	0	313,462,671	-1,312,156	-145,345,520	1,822,539,885	1,956,443,729	107.35%
2010	32,893,562	75,584	0	203,770,758	-1,310,356	-162,802,590	1,895,166,843	1,929,427,864	101.81%
2011	28,275,594	3,313,807	0	4,039,718	-1,158,921	-187,530,154	1,742,106,887	1,836,542,926	105.42%
2012	18,410,496	9,040,652	0	178,833,104	-1,187,236	-178,769,275	1,768,434,628	1,768,434,628	100.00%
2013	21,998,256	8,954,525	0	253,385,088	-1,289,344	-172,248,723	1,879,234,430	1,772,749,644	94.33%
2014	19,005,395	10,051,605	0	92,984,293	-1,329,904	-177,366,124	1,822,579,695	1,773,638,120	97.31%
2015	39,080,593	9,324,866	0	35,190,400	-1,204,226	-188,819,565	1,716,151,763	1,767,419,752	102.99%
2016	50,625,672	12,143,510	0	106,649,356	-1,225,857	-212,662,113	1,671,682,331	1,740,422,208	104.11%
2017	53,660,695	12,330,305	0	249,003,287	-1,677,304	-198,590,749	1,786,408,565	1,739,807,571	97.39%
2018	61,177,816	12,651,528	0	-38,060,799	-1,703,344	-202,163,452	1,618,310,314	1,731,726,301	107.01%
2019	57,316,293	13,217,363	0	245,570,699	0	-195,786,444	1,738,628,225	1,728,648,652	99.43%
2020	64,558,405	12,342,595	0	179,567,176	0	-202,179,563	1,792,916,838	1,736,065,119	96.83%
2021	62,113,812	13,390,188	0	304,173,201	0	-202,226,534	1,970,367,505	1,763,496,322	89.50%
2022	60,964,137	13,273,863	0	-177,417,288	0	-201,230,178	1,665,958,039	1,771,909,575	106.36%
2023	58,029,539	14,098,461	0	170,797,806	0	-202,290,036	1,706,593,809	1,706,593,809	100.00%

¹ Proceeds from Pension Obligation Bonds

² On a market basis, net of investment fees

³ Starting in 2019, admin expenses are being reported as zero because the County Board approved the termination of the reimbursement of the administrative costs by ERS to the County. Administrative expenses paid directly by ERS are treated as an offset to the Net Investment Return.

⁴ Includes withdrawal of membership accounts

Exhibit F – Definition of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Actuarial Accrued Liability for Actives:	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial Accrued Liability for Pensioners:	The single-sum value of lifetime benefits to existing pensioners. This sum takes into account life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial Cost Method:	A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the actuarially determined contribution.
Actuarial Gain or Loss:	A measure of the difference between actual experience and expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. 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 Accrued Liabilities emerge that may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than 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 yield actuarial liabilities that are larger than projected. Actuarial gains will shorten the time required for funding the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.
Actuarially Equivalent:	Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value (APV):	The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is: Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.) Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and Discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Actuarial Present Value of Future Plan Benefits:	The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial Valuation:	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB, such as the Actuarially Determined Contribution (ADC) and the Net Pension Liability (NPL).
Actuarial Value of Assets (AVA):	The value of the Fund's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the ADC.
Actuarially Determined:	Values that 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.
Actuarially Determined Contribution (ADC):	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The ADC consists of the Employer Normal Cost and the Amortization Payment.
Amortization Method:	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization Payment:	The portion of the pension plan contribution, or ADC, that is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Assumptions or Actuarial Assumptions:	The estimates upon which the cost of the Fund is calculated, including: <u>Investment return</u> - the rate of investment yield that the Fund will earn over the long-term future; <u>Mortality rates</u> - the death rates of employees and pensioners; life expectancy is based on these rates; <u>Retirement rates</u> - the rate or probability of retirement at a given age; <u>Withdrawal rates</u> - the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; <u>Salary increase rates</u> - the rates of salary increase due to inflation and productivity growth.
Closed Amortization Period:	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Open Amortization Period.
Decrements:	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined Benefit Plan:	A retirement plan in which benefits are defined by a formula applied to the member's compensation and/or years of service.
Defined Contribution Plan:	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
Employer Normal Cost:	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Experience Study:	A periodic review and analysis of the actual experience of the Fund that 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.
Funded Ratio:	The ratio of the Actuarial Value of Assets (AVA) to the Actuarial Accrued Liability (AAL). Plans sometimes calculate a market funded ratio, using the market value of assets (MVA), rather than the AVA.

Section 4: GASB 67 and 68 Information

Exhibit 1 – Net Pension Liability

The components of the net pension liability at were as follows:

	January 1, 2024	January 1, 2023
Total Pension Liability	\$2,435,954,223	\$2,285,971,200
Plan Fiduciary Net Position	<u>(1,706,593,809)</u>	<u>(1,665,958,039)</u>
Net Pension Liability	\$729,360,414	\$620,013,161
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	70.1%	72.9%

The Net Pension Liability was measured as of December 31, 2023, and is determined based on the Total Pension Liability from the January 1, 2024, actuarial valuation.

Plan provisions. The plan provisions used in the measurement of the Net Pension Liability are the same as those used in the actuarial valuation as of January 1, 2024.

Actuarial assumptions. The Total Pension Liability was determined by an actuarial valuation as of January 1, 2024, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50%
Salary increases	2.50% to 10.50%, varying by age, including inflation and productivity
Investment rate of return	6.80%, net of pension plan investment expenses
Cost-of-living adjustments	2.00% of original benefit per year

Mortality General Employees

- Pre-retirement: Males – Pub-2010 General Male Employee Table, projected with generation projection using scale MP-2021
Females – Pub-2010 General Female Employee Table, projected with generation projection using scale MP-2021
- Healthy Retiree: Males – 104% of Pub-2010 General Male Retired Lives Table, projected with generation projection using scale MP-2021
Females – 121% of Pub-2010 General Female Retired Lives Table, projected with generation projection using scale MP-2021
- Disabled Retiree: Males – 107% of Pub-2010 Non-Safety Male Disabled Lives Table , projected with generation projection using scale MP-2021
Females – 98% of Pub-2010 Non-Safety Female Disabled Lives Table , projected with generation projection using scale MP-2021
- Survivor: Males – 107% of Pub-2010 General Male Contingent Survivor Table, projected with generation projection using scale MP-2021
Females – 100% of Pub-2010 General Female Contingent Survivor Table, projected with generation projection using scale MP-2021

Mortality Deputy Sheriffs

- Pre-retirement: Males – Pub-2010 Safety Male Employee Table, projected with generation projection using scale MP-2021
Females – Pub-2010 Safety Female Employee Table, projected with generation projection using scale MP-2021
- Healthy Retiree: Males – 100% of Pub-2010 Safety Male Retired Lives Table, projected with generation projection using scale MP-2021
Females – 100% of Pub-2010 Safety Female Retired Lives Table, projected with generation projection using scale MP-2021
- Disabled Retiree: Males – 100% of Pub-2010 Safety Male Disabled Lives Table , projected with generation projection using scale MP-2021
Females – 100% of Pub-2010 Safety Female Disabled Lives Table , projected with generation projection using scale MP-2021
- Survivor: Males – 107% of Pub-2010 General Male Contingent Survivor Table, projected with generation projection using scale MP-2021
Females – 100% of Pub-2010 General Female Contingent Survivor Table, projected with generation projection using scale MP-2021

Mortality Elected Officials

Pre-retirement:	Males – Pub-2010 General Above-Median Male Employee Table, projected with generation projection using scale MP-2021
	Females – Pub-2010 General Above-Median Female Employee Table, projected with generation projection using scale MP-2021
Healthy Retiree:	Males – 100% of Pub-2010 General Above-Median Male Retired Lives Table, projected with generation projection using scale MP-2021
	Females – 100% of Pub-2010 General Above-Median Female Retired Lives Table, projected with generation projection using scale MP-2021
Disabled Retiree:	Males – 107% of Pub-2010 Non-Safety Male Disabled Lives Table , projected with generation projection using scale MP-2021
	Females – 98% of Pub-2010 Non-Safety Female Disabled Lives Table , projected with generation projection using scale MP-2021
Survivor:	Males – 107% of Pub-2010 General Male Contingent Survivor Table, projected with generation projection using scale MP-2021
	Females – 100% of Pub-2010 General Female Contingent Survivor Table, projected with generation projection using scale MP-2021

The actuarial assumptions used were based on the results of an experience study approved by the board. They are the same as the assumptions used in the January 1, 2024 funding actuarial valuation.

The long-term expected rate of return on pension plan investments is 6.80%. The long-term expected rate of return was determined using a method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Discount rate: The discount rate used to measure the Total Pension Liability was 6.80% as of December 31, 2023. The projection of cash flows used to determine the discount rate assumed plan member and employer contributions will be made at rates equal to those based on this January 1, 2024, Actuarial Valuation Report. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members as of December 31, 2023. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability as of December 31, 2023.

Sensitivity of the Net Pension Liability to changes in the discount rate: The following presents the Net Pension Liability, calculated using the discount rate of 6.80%, as well as what the Net Pension Liability would be if it were calculated using a discount rate that is one-percentage-point lower (5.80%) or one-percentage-point higher (7.80%) than the current rate:

	1% Decrease (5.80%)	Current Discount Rate (6.80%)	1% Increase (7.80%)
Net Pension Liability as of December 31, 2023	\$985,508,887	\$729,360,414	\$514,830,394

Exhibit 2 – Schedules of Changes in Net Pension Liability

	Year Ending December 31, 2023	Year Ending December 31, 2022
Total Pension Liability		
Service cost	\$18,410,957	\$17,857,874
Interest	165,242,785	166,384,489
Change of benefit terms	0	0
Differences between expected and actual experience	8,673,846	1,741,945
Changes of assumptions	159,945,471	0
Benefit payments, including refunds of employee contributions	<u>(202,290,036)</u>	<u>(201,230,178)</u>
Net change in Total Pension Liability	149,983,023	(\$15,245,870)
Total Pension Liability – beginning	<u>2,285,971,200</u>	<u>2,301,217,070</u>
Total Pension Liability – ending (a)	<u>\$2,435,954,223</u>	<u>\$2,285,971,200</u>
Plan Fiduciary Net Position		
Contributions – employer	\$58,029,539	\$60,964,137
Contributions – employee	14,098,461	13,273,863
Net investment income	174,968,710	(173,114,815)
Benefit payments, including refunds of employee contributions	(202,290,036)	(201,230,178)
Administrative expense	(4,170,904)	(4,302,473)
Other	<u>0</u>	<u>0</u>
Net change in Plan Fiduciary Net Position	40,635,770	(304,409,466)
Plan Fiduciary Net Position – beginning	<u>1,665,958,039</u>	<u>1,970,367,505</u>
Plan Fiduciary Net Position – ending (b)	<u>\$1,706,593,809</u>	<u>\$1,665,958,039</u>
Net Pension Liability – ending (a) – (b)	<u>\$729,360,414</u>	<u>\$620,013,161</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	70.1%	72.9%
Covered employee payroll	\$205,806,761	\$202,112,385
Net Pension Liability as percentage of covered employee payroll	354.39%	306.77%

Exhibit 3 – Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

As shown in *Exhibit 2*, during the plan year that ended December 31, 2023, the changes in Net Pension Liability due to differences between expected and actual demographic experience is an increase of \$8,673,846. The average expected remaining service lives of all members is 2.2 years, determined as of January 1, 2023 (the beginning of the measurement period ending December 31, 2023). Therefore, of the \$8,673,846 demographic loss, \$3,942,657 is recognized in pension expense in the current year and \$4,731,189 is reflected as a deferred outflow of resources related to pensions.

Based on the assumed investment return of 6.80% for the year ending December 31, 2023, the expected net investment income for the year was \$108,886,665. As shown in *Exhibit 2*, the actual net investment income for the year was \$174,968,710. The difference between actual and expected investment experience is an increase in Net Pension Liability of -\$66,082,045, which is recognized over a 5-year period. Of this amount, \$13,216,409 is reflected in the current year and \$52,865,636 is reflected as a deferred outflow of resources related to pensions.

	Year Established	Original Balance	Original Amortization Period	Amortization Amount During 2023	Outstanding Balance at December 31, 2023
Outflows					
Demographics	2021	13,970,444	2.4 years	2,328,408	\$0
Demographics	2022	1,741,945	2.3 years	757,367	227,211
Investments	2022	316,161,488	5.0 years	63,232,298	189,696,894
Experience	2023	8,673,846	2.2 years	3,942,657	4,731,189
Assumptions	2023	159,945,471	2.2 years	72,702,487	87,242,984
Total outflows				\$142,963,217	\$281,898,278
Inflows					
Investment	2019	128,095,497	5.0 years	\$25,619,099	\$0
Investment	2020	57,734,418	5.0 years	11,546,884	11,546,884
Investment	2021	178,304,378	5.0 years	35,660,876	71,321,752
Investment	2023	66,082,045	5.0 years	13,216,409	52,865,636
Total inflows				\$86,043,268	\$133,734,272

Exhibit 3 – Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (continued)

	December 31, 2023	December 31, 2022
Deferred Outflows of Resources (Outstanding Balances)		
Difference between expected and actual experience in the Total Pension Liability	\$4,958,400	\$3,312,986
Changes of assumptions	87,242,984	0
Net difference between projected and actual earnings on pension plan investments	53,962,622	97,233,697
Total Deferred Outflows of Resources	\$146,164,006	\$100,546,683
Deferred Inflows of Resources (Outstanding Balances)		
Difference between expected and actual experience in the Total Pension Liability	\$0	\$0
Changes of assumptions	0	0
Net difference between projected and actual earnings on pension plan investments	N/A	N/A
Total Deferred Inflows of Resources	\$0	\$0
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Year Ended December 31:		
2024	N/A	-\$6,508,787
2025	\$79,680,484	16,251,749
2026	29,684,042	27,571,422
2027	50,015,889	63,232,298
2028	-13,216,409	0
2029	0	0
Thereafter	0	0

Exhibit 4 – Pension Expense

Exhibit 4 below shows the individual components of collective pension expense, which totaled \$121,759,469 for the fiscal year that ended December 31, 2023.

Annual pension expense for the year can also be viewed as the change in Net Pension Liability, plus employer contributions for the year, less the change in outstanding balances of deferred outflows and deferred inflows of resources from the end of the prior fiscal year to end of the current fiscal year. The change in Net Pension Liability during the year was \$109,347,253 and employer contributions were \$58,029,539. The net value of deferred outflows and deferred inflows of resources as of the end of the current fiscal year is \$146,164,006 compared to the net value as of the end of the prior fiscal of \$100,546,683 for a change of \$45,617,323. Therefore, the pension expense for the fiscal year that ended December 31, 2023, is \$109,347,253 + \$58,029,539 - \$45,617,323 or \$121,759,469.

	Fiscal Year Ending December 31, 2023	Fiscal Year Ending December 31, 2022
Components of pension expense		
• Service Cost	18,410,957	\$17,857,874
• Interest on the total pension liability	165,242,785	166,384,489
• Projected earnings on plan investments	-108,886,665	-143,046,673
• Contributions - member	-14,098,461	-13,273,863
• Administrative expense	4,170,904	4,302,473
• Current year recognition of:		
Changes of assumptions	72,702,487	0
Difference between expected and actual experience	7,028,432	6,910,690
Difference between projected and actual earnings on pension plan investments	-22,810,970	23,948,816
Change of benefit terms	0	0
Total pension expense	\$121,759,469	\$63,083,806

Section 5: Actuarial Valuation Basis

Exhibit I: Actuarial assumptions, methods and models

Rationale for assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the Actuarial Experience Study as of December 31, 2021 prepared by Segal and approved by the board. Assumptions that changed from the prior valuation include retirement rates, termination rates, disability rates, mortality rates, salary increase rates and the net investment return assumption. Current data is reviewed in conjunction with each annual valuation. Based on professional judgment, no assumption changes are warranted at this time, beyond the assumption changes recommended by Conduent in the most recent Actuarial Experience Study.

Net investment return

6.80%.

The net investment return assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. As part of the recent experience study analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes, as well as the Plan's target asset allocation. The assumption is capped pursuant to Act 12. The assumption as capped by Act 12 is considered reasonable for purposes of this valuation.

Salary increases

Salary increases include an assumed inflation rate of 2.50%

Age	General Employees	Elected Officials	Deputy Sheriffs
20	8.50%	2.50%	10.50%
25	5.75	2.50	10.00
30	5.00	2.50	8.25
35	4.50	2.50	6.75
40	4.25	2.50	4.20
45	3.50	2.50	3.70
50	3.25	2.50	3.10
55	3.00	2.50	3.00
60	2.75	2.50	2.50
65+	2.50	2.50	N/A

Salary is limited by the 2024 Covered Compensation limit of \$345,000 and that limit is assumed to increase by 2.50% annually.

Payroll growth

3.50%, used for the purpose of projecting the Normal Cost amount in the Budget Contribution calculation.

Cost-of-living adjustments

2.00% of original benefit per year to retired employees. Surviving beneficiary receives proportionate amount based on survivorship percentage. These increases are set in the plan provisions.

Mortality rates

General Employees

Pre-Retirement: For males, Pub-2010 General Male Employee Table, projected with generational projection using scale MP-2021. For females, Pub-2010 General Female Employee Table, projected with generational projection using scale MP-2021.

Healthy-Retiree: For males, 104% of Pub-2010 General Male Retired Lives Table, projected with generational projection using scale MP-2021. For females, 121% of Pub-2010 General Female Retired Lives Table, projected with generation projection using scale MP-2021.

Disabled Annuitant: For males, 107% of Pub-2010 Non-Safety Male Disabled Lives Table , projected with generational projection using scale MP-2021. For females, 98% of Pub-2010 Non-Safety Female Disabled Lives Table , projected with generational projection using scale MP-2021.

Contingent Survivor: For males, 107% of Pub-2010 General Male Contingent Survivor Table, projected with generational projection using scale MP-2021. For females, 100% of Pub-2010 General Female Contingent Survivor Table, projected with generational projection using scale MP-2021.

Deputy Sheriffs

Pre-Retirement: For males, Pub-2010 Safety Male Employee Table, projected with generational projection using scale MP-2021. For females, Pub-2010 Safety Female Employee Table, projected with generational projection using scale MP-2021.

Healthy-Retiree: For males, 100% of Pub-2010 Safety Male Retired Lives Table, projected with generational projection using scale MP-2021. For females, 100% of Pub-2010 Safety Female Retired Lives Table, projected with generational projection using scale MP-2021.

Disabled Annuitant: For males, 100% of Pub-2010 Safety Male Disabled Lives Table , projected with generational projection using scale MP-2021. For females, 100% of Pub-2010 Safety Female Disabled Lives Table , projected with generational projection using scale MP-2021.

Contingent Survivor: For males, 107% of Pub-2010 General Male Contingent Survivor Table, projected with generational projection using scale MP-2021. For females, 100% of Pub-2010 General Female Contingent Survivor Table, projected with generational projection using scale MP-2021.

Mortality rates continued

Elected Officials

Pre-Retirement: For males, Pub-2010 General Above-Median Male Employee Table, projected with generational projection using scale MP-2021. For females, Pub-2010 General Above-Median Female Employee Table, projected with generational projection using scale MP-2021.

Healthy-Retiree: For males, 100% of Pub-2010 General Above-Median Male Retired Lives Table, projected with generational projection using scale MP-2021. For females, 100% of Pub-2010 General Above-Median Female Retired Lives Table, projected with generational projection using scale MP-2021.

Disabled Annuitant: For males, 107% of Pub-2010 Non-Safety Male Disabled Lives Table , projected with generational projection using scale MP-2021. For females, 98% of Pub-2010 Non-Safety Female Disabled Lives Table , projected with generational projection using scale MP-2021.

Contingent Survivor: For males, 107% of Pub-2010 General Male Contingent Survivor Table, projected with generational projection using scale MP-2021. For females, 100% of Pub-2010 General Female Contingent Survivor Table, projected with generational projection using scale MP-2021.

The tables reasonably reflect the mortality experience of the Plan as of the measurement date.

The generational projection of the mortality tables past the measurement date reflects future mortality improvement between the measurement date and those years.

Termination rates before retirement

(Rate %)

Age	Withdrawal – Ultimate			Disability	
	General Employees	Elected Officials	Deputy Sheriffs	Non-Deputy Sheriffs	Deputy Sheriffs
20	20.00	4.00	25.00	0.000	0.000
25	20.00	4.00	20.00	0.032	0.032
30	12.50	4.00	9.00	0.040	0.040
35	10.00	4.00	7.00	0.056	0.056
40	7.50	4.00	2.50	0.136	0.213
45	5.50	4.00	2.50	0.168	0.735
50	5.00	4.00	2.25	0.168	1.000
55	5.00	4.00	2.00	0.168	1.000
60	0.00	0.00	0.00	0.168	N/A
65+	0.00	0.00	0.00	0.168	N/A

Termination rates before retirement (continued)

Select rates for General Employees and Elected Officials are shown in the following table.

Select Period Termination Rates (%)

Age	General Employees Year 1	General Employees Year 2	General Employees Year 3	General Employees Year 4	General Employees Year 5	Elected Officials Under 5 Years
20	36.0	25.0	25.0	15.0	15.0	0.0
25	32.0	23.0	20.4	15.0	15.0	0.0
30	28.8	20.0	16.8	13.2	11.0	0.0
35	27.4	19.4	14.8	11.4	9.2	0.0
40	26.4	18.4	14.0	10.4	8.4	0.0
45	23.0	17.4	14.0	10.0	8.0	0.0
50	22.0	15.0	13.0	10.0	8.0	0.0
55	21.5	15.0	12.0	10.0	7.7	0.0
60	0.0	0.0	0.0	0.0	0.0	0.0

The withdrawal rates are based on historical and current demographic data, adjusted to reflect estimated future experience and professional judgment. As part of the analysis, a comparison was made between the actual withdrawals and disability retirements by age based on the prior assumptions over the most recent experience study period.

Retirement rates

Age	General Employees Eligible for Backdrop	General Employees Not Eligible for Backdrop	Elected Officials	Deputy Sheriffs
45 – 47	10.0	N/A	N/A	15.0
48 – 49	15.0	N/A	N/A	25.0
50	15.0	10.0	N/A	25.0
51 – 54	15.0	10.0	N/A	30.0
55	20.0	10.0	10.0	30.0
56	20.0	20.0	10.0	30.0
57	20.0	20.0	10.0	30.0
58	25.0	30.0	10.0	30.0
59	25.0	30.0	10.0	30.0
60	40.0	40.0	25.0	100.0
61	25.0	25.0	25.0	100.0
62	25.0	50.0	25.0	100.0
63	30.0	30.0	25.0	100.0
64	30.0	50.0	25.0	100.0
65	50.0	50.0	50.0	100.0
66	40.0	40.0	50.0	100.0
67	40.0	40.0	50.0	100.0
68	40.0	40.0	50.0	100.0
69	40.0	40.0	50.0	100.0
70	100.0	100.0	100.0	100.0

The retirement rates are based on historical and current demographic data, adjusted to reflect estimated future experience and professional judgment. As part of the analysis, a comparison was made between the actual retirements by age and the projected retirements based on the prior assumptions over the most recent experience study period.

Retirement rates for inactive vested participants

Age	Unisex Rate
50 – 53	0.0
54	30.0
55	30.0
56	10.0
57	10.0
58	10.0
59	50.0
60	50.0
61	20.0
62	20.0
63	15.0
64	15.0
65	30.0
66	30.0
67	15.0
68	15.0
69	30.0
70	30.0
71	30.0
72	100.0

The retirement rates for inactive vested participants are based on historical and current demographic data, adjusted to reflect estimated future experience and professional judgment.

Backdrop utilization

50% of retirees are assumed to elect the Backdrop. Of the employees electing the Backdrop, 100% are assumed to take the maximum possible Backdrop, based on eligibility for an unreduced benefit. 0% are assumed to take half of the maximum period. If those assumptions produce a Backdrop date after April 1, 2013, the participant is assumed to take the Backdrop using an effective date of April 1, 2013.

Unknown data for participants

Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.

Salary adjustments

The County pays active members biweekly. 2023 had 26 biweekly payments, so salaries were not adjusted.

Percent married

80% with males being 2 years older.

Percent married with at least one dependent child

21.6% for General Employees, 43.2% for Deputy Sheriffs and Elected Officials. For participants who die prior to age 60, it is assumed the dependent child will remain a dependent until the member would have turned age 60.

Disability type

For represented employees, disabilities are assumed to be 60% Ordinary and 40% Accidental. For non-represented employees, disabilities are assumed to be 30% Ordinary and 70% Accidental.

Benefit election

All single participants are assumed to elect the Straight Life Annuity form of payment. All married participants are assumed to elect the 100% Joint and Survivor Annuity form of payment.

Death benefits

All death benefits are assumed to be ordinary.

Actuarial value of assets

Market value of assets less unrecognized returns. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a ten-year period. Actuarial value of assets was reset to equal the market value of assets at January 1, 2024, and future unrecognized returns will be recognized over a ten-year period.

Actuarial cost method

Entry Age Actuarial Cost Method. Entry Age is the age at date of employment or, if date is unknown, current age minus years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis.

The outstanding balance of the Unfunded Actuarial Accrued Liability as of January 1, 2024 is being amortized over a fixed 30 year period. Changes to the Unfunded Actuarial Accrued Liability arising from plan changes, assumption changes, and experience gains and losses are amortized as a flat dollar of payroll over a 20-year period.

The variance between the actual contribution and the contribution requirement for a year is amortized over a five year period on a level dollar basis.

Justification for change in actuarial assumptions

- The Board adopted assumption changes that will be effective for the January 1, 2024 valuation as a result of the experience study adopted by the board. These changes include:
 - Salary scales
 - Mortality tables,
 - Retirement rates
 - Termination rates
 - Disabled retirement rates
 - Spouse information
 - Benefit election
 - Backdrop election

The investment return assumption was updated to 6.80% from 7.50%.

Funding methods were also changed to reset the actuarial value of assets to the market value of assets and to reestablish the Unfunded Actuarial Accrued Liability with a new base for the January 1, 2024 valuation.

Exhibit II: Summary of plan provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan year

January 1 through December 31

Plan status

Ongoing, As of January 1, 2025 the plan will be closed to new members.

Membership

Any person regularly employed by the County at an annual wage or salary, including any person employed by the State of Wisconsin, but receiving a portion of compensation from the County.

Vesting Service

Service during a period of employment with the County or in any department of in any town, village, city or metropolitan sewerage commission in the County, which department has by consolidation or merger been absorbed by the County. Creditable service shall consist of prior service, military service, and membership service, as well as service credited for military service in Vietnam.

Additional credit for periods of military service will be earned as follows:

- Less than 5 years of service with the County: no military service granted.
- Between 5 and 10 years of service with the County: up to 1 year of military service granted.
- Between 10 and 15 years of service with the County: up to 2 years of military service granted.
- Between 15 and 20 years of service with the County: up to 3 years of military service granted.
- 20 or more years of service with the County: up to 4 years of military service granted.

Benefit service

Same as vesting service except that service prior to becoming a participant does not count.

Compensation

Compensation is the full rate of compensation payable to the member if working the full normal working time for the member's position. Compensation includes authorized overtime payments and the compensation rate assumed to have been received while the member is on an authorized leave of absence. In cases where compensation includes maintenance, the Pension Board shall fix the value of that part of compensation not payable in money.

Compensation shall not exceed \$345,000 in 2023, as indexed for the cost of living.

Final average salary (FAS)

Final average salary means the average annual salary for the highest three consecutive years of service.

Exceptions:

- For Deputy Sheriffs hired on or after January 1, 1982, excluding DA investigators and non-represented Deputy Sheriffs, the final average salary means the average annual salary for the highest five years of service.
- For DA investigators and non-Deputy Sheriffs hired before July 1, 1995 and all Deputy Sheriffs hired before January 1, 1982, the final average salary is increased by 7.5% for each year worked after January 1, 2001 to a maximum of 25%.

Voluntary employee contribution

Up to 10% of earnings, provided that the employee was contributing on January 1, 1971. The benefit payable to a member at termination of employment includes any voluntary contribution balance, in addition to the amounts described below.

Mandatory employee contribution

Public Safety and General employees contribute 50% of the normal cost for active members.

Interest Credit

5.00% per annum on member contribution account balances.

Rule of 75

For eligible employees, unreduced retirement if age plus credited service exceeds 75.

Normal retirement eligibility

- Elected Officials
 - Age 60, or age 55 with 30 years of service
 - If hired before January 1, 2006, Rule of 75 is available
- Firefighters, Federated Nurses, and Machinists
 - Age 60 with 5 years of service, or age 55 with 30 years of service
 - Rule of 75 for Firefighters hired before December 1, 1996, Nurses hired before January 1, 1997, and Machinists hired before January 1, 1994
 - For Federated Nurses hired after January 1, 2012, and for Machinists hired after January 1, 2010, age 64 or age 55 with 30 years of service
- Attorneys, Building Trades, non-represented employees, DC48, and TEAMCO
 - Age 60, or age 55 with 30 years of service
 - Age 64 or age 55 with 30 years of service (for all hired after January 1, 2010 except DC48)
 - Age 64 or age 55 with 30 years of service (for DC48 hired after August 1, 2011)
 - Age 64 (non-represented employees)
 - Rule of 75 for Attorneys, Building Trades, and non-represented employees hired before January 1, 2006
 - Rule of 75 for TEAMCO hired before January 1, 1994
 - Rule of 75 for all DC48
- Deputy Sheriffs
 - Age 57, or age 55 with 15 years of service
 - Rule of 75 for, non-represented Deputy Sheriffs, DA investigators, and Deputy Sheriffs hired before January 1, 1994.

Normal retirement amount

- Elected Officials
 - Hired before March 15, 2002: 2.5% of FAS per year of service prior to October 14, 2010 and 1.6% of FAS per years of service thereafter, not greater than 80%.
 - Hired on or after March 15, 2002: 2.0% of FAS per year of service prior to October 14, 2010 and 1.6% of FAS per years of service thereafter, not greater than 80%
- General Employees
 - 2.0% of FAS per year of service, not greater than 80%
 - The rate is reduced to 1.6% of FAS per years of service as follows:
 - For non-represented employees, effective January 1, 2010
 - For Attorneys and TEAMCO, effective May 1, 2010
 - For Machinists, effective June 1, 2010
 - For DC48, effective August 1, 2011
 - For Building Trades and Federated Nurses, effective January 1, 2012
- Deputy Sheriffs
 - For Deputy Sheriffs hired before July 1, 1995, DA investigators and non-represented Deputy Sheriffs, 2.5% of FAS per year of service, not greater than 80%
 - For Deputy Sheriffs hired on or after July 1, 1995, 2.0% of FAS per years of service, not greater than 80%
- Firefighters
 - 1.50% of FAS per year of service prior to January 1, 1999, then 2% of FAS per year of service afterwards.
- For all members, 1.6% of FAS per year of service after 80% of FAS has been reached

Early retirement

- **Age Requirement:** 55
- **Service Requirement:** 15 years
- **Amount:** Benefits reduced by 5/12 of 1% for each month by which payment of benefits precedes Normal Retirement Age.
- **Early Retirement:** Not applicable for Deputy Sheriffs, DA investigators and non-represented Deputy Sheriffs (they are eligible for unreduced retirement at age 55 with 15 years of service).

Ordinary disability

- **Service Requirement:** 15 years
- **Amount:** benefits calculated as for normal retirement. Minimum benefit is 25% of FAS..

Accidental disability

- All employees are eligible
- If the employee has attained normal retirement age, normal retirement benefits apply
- If the employee has not attained normal retirement age, the benefit is computed as the normal retirement benefits but not less than 60% of FAS
- Employees whose benefit is not less than 75% of FAS
 - Elected Officials and non-represented employees hired before February 19, 1987
 - Attorneys hired on or after January 1, 1987
 - Building Trades hired before October 30, 1987
 - Federated Nurses hired before January 1, 1987
 - Machinists hired before May 18, 1988
 - DC48 hired before July 24, 1987
 - TEAMCO hired before January 12, 1988
 - Deputy Sheriffs
 - DA investigators and non-represented Deputy Sheriffs hired before February 19, 1987
- Benefits received prior to age 62 are recalculated after age 62 to include service from the date of disability to age 62

Ordinary death benefit

- Only applicable to Deputy Sheriffs not eligible for normal retirement
- Only applicable if the cause of death was not an accident in active duty
- Employee has completed 1 year of service
- Surviving spouse or child shall be entitled to survivor benefits (see section on survivor benefits)

Accidental death benefit

- Only applicable to Deputy Sheriffs when death occurs due to an accident in active duty
- Benefit of 50% of FAS shall be paid:
 - To surviving spouse for life or until remarriage
 - If surviving spouse benefit is not payable, to children under age 18
 - If surviving spouse and child benefits are not payable, to dependent parent for life
- Benefit shall not be less than ordinary death benefit amount

Lump Sum Death Benefit

- If no other death benefit is payable, a lump sum of one half of FAS, not greater than \$2,000.
- Member must have 1 year of service

Survivor benefits

- Member dies prior to age 60 after completing 1 year of service
- Surviving spouse has at least one child and was married to the member at least 1 year prior to death
- Monthly benefit of 40% of final salary prior to age 60
- Reduced by monthly survivor benefits paid by Social Security
- At age 60, 50% of benefit based on actual FAS and service projected to age 60
- Additional benefit of 10% of final salary less social security benefits shall be paid to each eligible unmarried child under age 18. Age limit is 22 if unmarried child is a student.

Refund of contributions

- Available at termination of employment

Vesting

- Service Requirement: 5 years of service
- Accrued benefit is at least \$10 per month
- Amount: as per Normal Retirement Benefit
- If member withdraws employee contributions, vested benefit does not apply

Optional forms of benefits

- Options that pay a reduced benefit on an actuarially equivalent basis
 - Option 1 – If member dies before benefits paid exceed the member's accumulated contributions at retirement, the balance is paid as a lump sum.
 - Option 2 – 50% Joint and Survivor Annuity.
 - Option 3 – 100% Joint and Survivor Annuity.

Cost of living adjustment (COLA)

2% of original benefit amount per year to retired employees. Surviving spouses get a proportionate increase based on survivorship percentage.

Backdrop

- Members that are not eligible
 - Elected Officials, non-represented employees and Deputy Sheriffs hired on or after March 15, 2002
 - Machinists and TEAMCO hired on or after November 4, 2005
 - Attorneys hired on or after January 1, 2006
 - Federated Nurses hired on or after December 15, 2005
 - Firefighters hired on or after June 19, 2007
 - DC48 hired on or after February 1, 2007
 - Building trades hired on or after February 21, 2006
- Retiring members who satisfy eligibility criteria may elect to use a past retirement date
- Member must have been eligible to retire at Backdrop date
- Backdrop date must be at least 1 year prior to the date the member terminated employment
- Backdrop monthly benefit calculated using service and salary as of Backdrop date
- Member receives cash payment of payments from Backdrop date to retirement date, including interest

On and after April 1, 2013, if the Backdrop date is after April 1, 2013 the Backdrop benefit will not reflect any service or salary for the period from April 1, 2013 to the Backdrop date. This provision does not apply to Elected Officials, Building Trades, Machinists, Federated Nurses and Firefighters.

Section 6: Additional Summary Tables of Member Data

TABLE 1 – SUMMARY OF MEMBERSHIP DATA AS OF JANUARY 1, 2024

Active Participants

	General Employees	Deputy Sheriffs	Elected Officials	Total
Number of Participants	3,213	261	6	3,480
Average Annual Salaries*	\$65,353	\$72,755	\$114,729	\$65,994
Average Age	44.0	39.0	57.6	43.7
Average Benefit Service	8.4	11.9	15.8	8.7

* The salaries shown in the table above represent a rate of pay increased by the salary assumption

Inactive Participants

	Number	Annual Annuities	Average Annuities	Average Age
Participants with Deferred Benefits	1,233	\$11,038,020	\$8,952	52.0
Retired Participants	6,610	161,546,145	\$24,240	73.3
Beneficiaries	911	18,302,065	\$20,090	78.5
Disability Retirees	232	6,673,332	\$28,764	66.0
Total	8,986	\$197,559,562	\$21,985	70.7

TABLE 2 – MEMBERSHIP STATISTICS (UNAUDITED)

Active Participants

Members as of January 1, 2023	3,215
Changes during the year:	
New enrollments	676
Vested terminations	(60)
Nonvested terminations	(104)
Retirements	(93)
Deaths in active service	(3)
Withdrawals	(151)
Data Adjustment	0
Members as of December 31, 2023	3,480

Retirements and Survivors

	Maximum Pension	Refund	100%	75%	50%	25%	5%	10-Yr	Survivors and Beneficiaries	Total
January 1, 2023	3,217	153	1,434	316	850	556	40	339	914	7,819
Changes during the year:										
Adjustments / Show-ups	-	1	(1)	1	1	1	-	2	23	28
Retirements	108	-	32	11	8	7	-	17		183
Benefits Expired	-	-	-	-	-	-	-	-	(6)	(6)
Pensioner Deaths	(115)	(14)	(50)	(4)	(40)	(19)	-	(9)	(20)	(271)
December 31, 2023	3,210	140	1,415	324	819	545	40	349	911	7,753

TABLE 3A – PARTICIPANTS IN ACTIVE SERVICE AS OF DECEMBER 31, 2023 BY AGE, YEARS OF CREDITABLE SERVICE, AND AVERAGE PAYROLL

All Employee Groups

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Total	Years of Creditable Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	164	164	--	--	--	--	--	--	--	--
	\$53,572	\$53,572	--	--	--	--	--	--	--	--
25 - 29	375	338	37	--	--	--	--	--	--	--
	\$56,689	\$55,837	\$64,472	--	--	--	--	--	--	--
30 - 34	431	318	104	9	--	--	--	--	--	--
	\$61,031	\$58,679	\$66,658	--	--	--	--	--	--	--
35 - 39	467	253	145	51	18	--	--	--	--	--
	\$64,822	\$59,616	\$69,816	\$73,806	--	--	--	--	--	--
40 - 44	419	186	118	57	40	17	1	--	--	--
	\$68,763	\$63,194	\$70,582	\$77,163	\$74,405	--	--	--	--	--
45 - 49	449	134	83	73	53	86	20	--	--	--
	\$71,841	\$62,165	\$70,797	\$84,391	\$73,296	\$73,171	\$85,616	--	--	--
50 - 54	475	123	89	44	51	84	76	8	--	--
	\$70,386	\$60,797	\$72,172	\$69,405	\$76,081	\$69,725	\$82,216	--	--	--
55 - 59	385	97	72	42	25	65	50	24	8	2
	\$68,625	\$58,453	\$77,909	\$64,405	\$74,521	\$66,946	\$72,672	\$75,990	--	--
60 - 64	223	53	51	22	22	35	20	15	3	2
	\$70,243	\$61,745	\$67,083	\$80,215	\$71,029	\$68,348	\$76,179	--	--	--
65 & over	92	14	19	11	15	12	9	8	3	1
	\$70,116	--	--	--	--	--	--	--	--	--
Total	3480	1680	718	309	224	299	176	55	14	5
	\$65,994	\$58,737	\$70,456	\$75,334	\$73,514	\$70,320	\$78,497	\$76,631	--	--

TABLE 3B – PARTICIPANTS IN ACTIVE SERVICE AS OF DECEMBER 31, 2023 BY AGE, YEARS OF CREDITABLE SERVICE, AND AVERAGE PAYROLL

General Employees

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Total	Years of Creditable Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	150	150	--	--	--	--	--	--	--	--
	\$52,561	\$52,561	--	--	--	--	--	--	--	--
25 - 29	317	289	28	--	--	--	--	--	--	--
	\$54,676	\$53,991	\$61,744	--	--	--	--	--	--	--
30 - 34	382	292	84	6	--	--	--	--	--	--
	\$59,899	\$58,032	\$65,157	--	--	--	--	--	--	--
35 - 39	438	241	137	44	16	--	--	--	--	--
	\$64,311	\$59,114	\$69,556	\$73,555	--	--	--	--	--	--
40 - 44	399	184	109	54	37	14	1	--	--	--
	\$68,594	\$63,178	\$70,632	\$77,117	\$74,744	--	--	--	--	--
45 - 49	423	132	80	72	53	72	14	--	--	--
	\$71,352	\$62,111	\$70,628	\$84,523	\$73,296	\$71,736	--	--	--	--
50 - 54	419	123	87	42	51	65	44	7	--	--
	\$69,109	\$60,797	\$72,152	\$68,749	\$76,081	\$67,055	\$83,339	--	--	--
55 - 59	374	97	72	42	25	58	46	24	8	2
	\$68,325	\$58,453	\$77,909	\$64,405	\$74,521	\$65,541	\$72,106	\$75,990	--	--
60 - 64	220	52	51	21	22	35	19	15	3	2
	\$69,708	\$61,129	\$67,083	\$79,569	\$71,029	\$68,348	--	--	--	--
65 & over	91	14	19	11	15	12	9	7	3	1
	\$69,422	--	--	--	--	--	--	--	--	--
Total	3213	1574	667	292	219	256	133	53	14	5
	\$65,353	\$58,197	\$70,279	\$75,110	\$73,566	\$68,791	\$77,156	\$75,416	--	--

TABLE 3C – PARTICIPANTS IN ACTIVE SERVICE AS OF DECEMBER 31, 2023 BY AGE, YEARS OF CREDITABLE SERVICE, AND AVERAGE PAYROLL

Deputy Sheriffs

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Total	Years of Creditable Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	14	14	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
25 - 29	58	49	9	--	--	--	--	--	--	--
	\$67,695	\$66,728	--	--	--	--	--	--	--	--
30 - 34	49	26	20	3	--	--	--	--	--	--
	\$69,862	\$65,943	\$72,963	--	--	--	--	--	--	--
35 - 39	28	11	8	7	2	--	--	--	--	--
	\$70,412	--	--	--	--	--	--	--	--	--
40 - 44	20	2	9	3	3	3	--	--	--	--
	\$72,127	--	--	--	--	--	--	--	--	--
45 - 49	26	2	3	1	--	14	6	--	--	--
	\$79,795	--	--	--	--	--	--	--	--	--
50 - 54	55	--	2	1	--	19	32	1	--	--
	\$79,678	--	--	--	--	--	\$80,670	--	--	--
55 - 59	11	--	--	--	--	7	4	--	--	--
	--	--	--	--	--	--	--	--	--	--
60 - 64	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
65 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	261	104	51	15	5	43	42	1	--	--
	\$72,755	\$65,872	\$72,779	--	--	\$79,424	\$81,258	--	--	--

TABLE 3D – PARTICIPANTS IN ACTIVE SERVICE AS OF DECEMBER 31, 2023 BY AGE, YEARS OF CREDITABLE SERVICE, AND AVERAGE PAYROLL

Elected Officials

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Total	Years of Creditable Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
25 - 29	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
30 - 34	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
35 - 39	1	1	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
40 - 44	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
45 - 49	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
50 - 54	1	--	--	1	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
55 - 59	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
60 - 64	3	1	--	1	--	--	1	--	--	--
	--	--	--	--	--	--	--	--	--	--
65 & over	1	--	--	--	--	--	--	1	--	--
	--	--	--	--	--	--	--	--	--	--
Total	6	2	--	2	--	--	1	1	--	--
	--	--	--	--	--	--	--	--	--	--

**TABLE 4 – ACTIVE AND DEFERRED VESTED MEMBERS OBTAINING RETIREMENT ELIGIBILITY
OVER NEXT FIVE CALENDAR YEARS**

Actives Reaching Retirement Eligibility

Year	General Employees	Elected Officials	Deputy Sheriffs	Total
Eligible at Valuation Date	485	3	11	499
2025	84	-	12	96
2026	80	1	8	89
2027	83	-	15	98
2028	84	1	12	97
2029	86	-	6	92
Total Over Next 5 Years	417	2	53	472
Grand Total Eligible	902	5	64	971

Deferred Vested Members Reaching Retirement Age

Year	Total
2024	52
2025	48
2026	62
2027	61
2028	67
Total Over Next 5 Years	290

TABLE 5 – RETIREE AND BENEFICIARY MEMBERSHIP DATA AS OF JANUARY 1, 2024

Number and Average Annual Benefits

Age Last Birthday	Number	Annual Benefit	Average Annual Benefit
Retired Participants			
Under 60	296	9,827,565	33,201
60 – 64	804	18,240,543	22,687
65 – 69	1,267	29,633,153	23,388
70 – 74	1,647	39,364,276	23,901
75 – 79	1,253	32,717,277	26,111
80 & over	1,343	31,763,331	23,651
Total	6,610	\$161,546,145	\$24,440
Beneficiaries			
Under 60	55	860,457	15,645
60 – 64	48	871,170	18,149
65 – 69	97	2,210,443	22,788
70 – 74	125	2,827,836	22,623
75 – 79	165	3,672,696	22,259
80 & over	421	7,859,463	18,669
Total	911	\$18,302,065	\$20,090
Disabled Participants			
Under 60	80	2,945,508	36,819
60 – 64	35	941,088	26,888
65 – 69	38	905,951	23,841
70 – 74	29	840,811	28,993
75 – 79	18	346,091	19,227
80 & over	32	693,883	21,684
Total	232	\$6,673,332	\$28,764
Grand Total	7,753	\$186,521,542	\$24,058

TABLE 6 – FIVE-YEAR HISTORY OF MEMBERSHIP DATA

Active Participants

Valuation as of January 1	Number of Active Participants	Percentage Change in Membership	Total Annual Payroll	Percentage Change in Payroll
2024	3,480	8.24%	\$229,657,792	11.60%
2023	3,215	-3.31%	205,806,761	1.83%
2022	3,325	-5.78%	202,112,385	-1.29%
2021	3,529	-0.90%	204,754,607	2.19%
2020	3,561	3.97%	200,365,711	4.88%

Retired, Disabled, and Beneficiary Participants

Valuation as of January 1	Number on roll	Additions	Deletions	Percentage Change in Membership	Annual Annuities	Percentage Change in Annuities
2024	7,753	211	277	-0.84%	\$186,521,541	0.28%
2023	7,819	246	256	-0.13%	186,000,538	1.02%
2022	7,829	284	341	-0.72%	184,114,533	0.82%
2021	7,886	254	369	-1.44%	182,609,017	0.28%
2020	8,001	254	295	-0.51%	182,097,756	1.07%

TABLE 7A – DETAILED TABULATIONS OF THE DATA

The Number and Annual Salaries of Members in Active Service Distributed by Age as of January 1, 2024

All Employees

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Number	Men		Women		Total Number	Total Compensation
		Compensation	Number	Compensation	Number		
18	1	--	--	--	--	1	--
19	3	--	3	--	--	6	--
20	6	--	2	--	--	8	--
21	9	--	13	--	--	22	1,138,925
22	8	--	17	--	--	25	1,300,896
23	26	1,375,922	25	1,390,784	--	51	2,766,706
24	29	1,754,910	22	1,134,625	--	51	2,889,535
25	43	2,322,088	27	1,469,316	--	70	3,791,404
26	28	1,665,720	34	1,706,878	--	62	3,372,598
27	39	2,208,591	41	2,262,584	--	80	4,471,175
28	48	2,783,753	34	1,968,782	--	82	4,752,534
29	37	2,324,041	44	2,546,753	--	81	4,870,794
30	31	1,922,032	46	2,617,432	--	77	4,539,464
31	37	2,423,879	50	2,678,023	--	87	5,101,902
32	55	3,505,427	44	2,601,443	--	99	6,106,870
33	34	2,235,765	44	2,710,783	--	78	4,946,548
34	44	3,021,812	46	2,587,946	--	90	5,609,759
35	35	2,316,559	55	3,273,799	--	90	5,590,358
36	40	2,684,901	58	3,366,996	--	98	6,051,897
37	43	3,161,121	52	3,182,456	--	95	6,343,577
38	42	3,047,669	52	3,050,632	--	94	6,098,301
39	35	2,339,468	55	3,848,393	--	90	6,187,861

TABLE 7A – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Salaries of Members in Active Service Distributed by Age as of January 1, 2024

All Employees

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Men		Women		Total Number	Total Compensation
	Number	Compensation	Number	Compensation		
40	39	\$2,728,849	51	\$3,184,182	90	\$5,913,031
41	29	2,152,140	39	2,581,998	68	4,734,137
42	30	2,098,356	43	2,846,418	73	4,944,774
43	45	3,612,536	43	2,495,524	88	6,108,061
44	45	3,325,450	55	3,786,287	100	7,111,736
45	47	3,619,557	53	3,460,092	100	7,079,649
46	36	2,730,959	39	2,450,890	75	5,181,849
47	52	4,080,699	40	2,445,924	92	6,526,623
48	50	4,389,667	48	3,273,087	98	7,662,753
49	36	2,821,833	48	2,983,897	84	5,805,729
50	31	2,273,578	35	2,308,137	66	4,581,715
51	53	3,849,467	54	3,652,678	107	7,502,145
52	51	3,813,294	47	3,419,704	98	7,232,998
53	57	4,160,037	51	3,264,442	108	7,424,479
54	43	3,216,588	52	3,428,368	95	6,644,956
55	32	2,436,642	46	2,868,644	78	5,305,286
56	38	2,739,889	48	2,902,060	86	5,641,949
57	36	2,886,445	44	2,950,333	80	5,836,778
58	39	2,958,591	40	2,501,654	79	5,460,245
59	25	1,939,237	37	2,236,623	62	4,175,860
60	25	1,780,872	22	1,719,605	47	3,500,477

TABLE 7A – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Salaries of Members in Active Service Distributed by Age as of January 1, 2024

All Employees

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Number	Men		Women		Total Number	Total Compensation
		Compensation	Number	Compensation	Number		
61	23	1,613,093	21	1,178,531	44	2,791,625	
62	25	1,864,785	28	1,713,612	53	3,578,397	
63	24	1,917,556	25	1,846,721	49	3,764,277	
64	12	--	19	--	31	2,076,782	
65	8	--	21	1,415,019	29	1,989,015	
66	4	--	9	--	13	--	
67	9	--	11	--	20	1,464,873	
68	7	--	5	--	12	--	
69	2	--	4	--	6	--	
70	3	--	--	--	3	--	
71	3	--	1	--	4	--	
72	2	--	1	--	3	--	
73	--	--	1	--	1	--	
74	--	--	--	--	--	--	
75	1	--	--	--	1	--	
76	--	--	--	--	--	--	
77	--	--	--	--	--	--	
78	--	--	--	--	--	--	
79	--	--	--	--	--	--	
80	--	--	--	--	--	--	
Total	1,635	\$115,395,316	1,845	\$114,262,476	3,480	\$229,657,792	

TABLE 7B – DETAILED TABULATIONS OF THE DATA

The Number and Annual Salaries of Members in Active Service Distributed by Years of Service as of January 1, 2024 All Employees

(Compensation in cells with fewer than 20 records has been suppressed)

Service	Men		Women		Total Number	Total Compensation
	Number	Compensation	Number	Compensation		
0	145	\$7,738,560	175	\$9,164,772	320	\$16,903,332
1	225	13,588,520	284	15,528,339	509	29,116,860
2	116	7,422,763	165	9,090,244	281	16,513,007
3	84	5,807,034	86	5,046,725	170	10,853,759
4	83	5,249,902	121	7,152,720	204	12,402,622
5	86	5,623,303	109	6,389,265	195	12,012,568
6	74	5,762,240	93	6,456,236	167	12,218,476
7	68	4,741,926	88	5,805,754	156	10,547,680
8	63	4,581,546	83	5,447,621	146	10,029,167
9	47	3,769,750	70	4,512,615	117	8,282,365
10	42	3,886,714	49	3,215,605	91	7,102,319
11	49	3,728,863	38	2,435,017	87	6,163,879
12	47	3,616,184	33	2,289,154	80	5,905,337
13	33	2,588,068	22	1,460,913	55	4,048,980
14	25	1,812,730	14	--	39	2,749,988
15	28	2,173,820	27	1,970,328	55	4,144,148
16	33	2,564,554	27	1,949,450	60	4,514,004
17	17	--	20	1,891,517	37	3,411,712
18	26	1,670,944	36	2,331,695	62	4,002,639
19	21	1,585,352	22	1,372,298	43	2,957,650
20	16	--	18	--	34	2,349,989
21	22	1,907,274	9	--	31	2,472,118
22	31	2,600,790	22	1,461,028	53	4,061,818

TABLE 7B – DETAILED TABULATIONS OF THE DATA (CONTINUED)

**The Number and Annual Salaries of Members in Active Service Distributed by Years of Service as of January 1, 2024
All Employees**

(Compensation in cells with fewer than 20 records has been suppressed)

Service	Number	Men		Women		Total Number	Total Compensation
		Compensation	Number	Compensation	Number		
23	36	\$2,758,320	40	\$2,498,136	76	\$5,256,455	
24	39	2,755,459	35	2,200,846	74	4,956,305	
25	42	3,410,690	34	2,365,813	76	5,776,503	
26	32	2,488,099	17	--	49	3,716,818	
27	28	2,286,302	15	--	43	3,506,885	
28	13	--	16	--	29	2,261,831	
29	20	1,618,322	9	--	29	2,446,214	
30	13	--	17	--	30	2,267,662	
31	5	--	10	--	15	--	
32	8	--	5	--	13	--	
33	3	--	9	--	12	--	
34	5	--	10	--	15	--	
35	4	--	3	--	7	--	
36	2	--	4	--	6	--	
37	2	--	1	--	3	--	
38	--	--	3	--	3	--	
39	1	--	1	--	2	--	
41	--	--	2	--	2	--	
43	--	--	1	--	1	--	
44	--	--	1	--	1	--	
Total	1,635	\$115,395,316	1,845	\$114,262,476	3,480	\$229,657,792	

TABLE 7C – DETAILED TABULATIONS OF THE DATA

The Number and Annual Salaries of Members in Active Service Distributed by Age as of January 1, 2024

General Employees

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Men		Women		Total Number	Total Compensation
	Number	Compensation	Number	Compensation		
18	1	--	--	--	1	--
19	3	--	3	--	6	--
20	6	--	2	--	8	--
21	9	--	13	--	22	\$1,138,925
22	8	--	17	--	25	1,300,896
23	25	\$1,312,520	24	\$1,329,208	49	2,641,728
24	19	--	20	1,002,911	39	2,112,818
25	34	1,723,827	25	1,334,662	59	3,058,489
26	19	--	33	1,637,403	52	2,697,343
27	31	1,673,357	41	2,262,584	72	3,935,941
28	34	1,843,487	33	1,906,424	67	3,749,911
29	26	1,551,632	41	2,338,885	67	3,890,516
30	24	1,434,332	45	2,537,176	69	3,971,508
31	26	1,680,814	49	2,616,327	75	4,297,141
32	45	2,825,386	44	2,601,443	89	5,426,829
33	28	1,803,729	43	2,642,365	71	4,446,094
34	33	2,220,146	45	2,519,606	78	4,739,752
35	31	2,026,921	54	3,213,719	85	5,240,640
36	35	2,338,852	58	3,366,996	93	5,705,848
37	36	2,584,359	50	3,047,380	86	5,631,739
38	37	2,704,527	50	2,918,763	87	5,623,290
39	33	2,184,650	54	3,781,960	87	5,966,610

TABLE 7C – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Salaries of Members in Active Service Distributed by Age as of January 1, 2024

General Employees

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Men		Women		Total Number	Total Compensation
	Number	Compensation	Number	Compensation		
40	37	\$2,601,454	51	\$3,184,182	88	\$5,785,635
41	26	1,946,581	38	2,494,736	64	4,441,317
42	25	1,741,774	41	2,686,600	66	4,428,374
43	41	3,313,840	43	2,495,524	84	5,809,364
44	42	3,118,222	55	3,786,287	97	6,904,509
45	42	3,238,550	52	3,384,900	94	6,623,449
46	34	2,575,864	39	2,450,890	73	5,026,754
47	44	3,436,226	39	2,366,817	83	5,803,044
48	45	3,970,353	46	3,121,401	91	7,091,754
49	35	2,739,625	47	2,897,305	82	5,636,930
50	25	1,802,538	35	2,308,137	60	4,110,674
51	43	3,044,183	52	3,484,567	95	6,528,750
52	38	2,750,890	44	3,189,514	82	5,940,404
53	48	3,455,459	50	3,185,943	98	6,641,402
54	32	2,346,306	51	3,342,028	83	5,688,335
55	29	2,197,350	44	2,711,646	73	4,908,996
56	35	2,504,318	48	2,902,060	83	5,406,378
57	36	2,886,445	44	2,950,333	80	5,836,778
58	37	2,802,116	39	2,423,155	76	5,225,272
59	25	1,939,237	37	2,236,623	62	4,175,860
60	24	1,687,102	22	1,719,605	46	3,406,706
61	23	1,613,093	21	1,178,531	44	2,791,625

TABLE 7C – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Salaries of Members in Active Service Distributed by Age as of January 1, 2024

General Employees

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Number	Men		Women		Total Number	Total Compensation
		Compensation	Number	Compensation	Number		
62	25	\$1,864,785	27	\$1,572,799	52	\$3,437,584	
63	23	1,823,785	25	1,846,721	48	3,670,507	
64	12	--	19	--	31	2,076,782	
65	8	--	21	1,415,019	29	1,989,015	
66	4	--	9	--	13	--	
67	8	--	11	--	19	--	
68	7	--	5	--	12	--	
69	2	--	4	--	6	--	
70	3	--	--	--	3	--	
71	3	--	1	--	4	--	
72	2	--	1	--	3	--	
73	--	--	1	--	1	--	
74	--	--	--	--	--	--	
75	1	--	--	--	1	--	
76	--	--	--	--	--	--	
77	--	--	--	--	--	--	
78	--	--	--	--	--	--	
79	--	--	--	--	--	--	
80	--	--	--	--	--	--	
Total	1,407	\$98,636,771	1,806	\$111,343,556	3,213	\$209,980,327	

TABLE 7D – DETAILED TABULATIONS OF THE DATA

The Number and Annual Salaries of Members in Active Service Distributed by Years of Service as of January 1, 2024

General Employees

(Compensation in cells with fewer than 20 records has been suppressed)

Service	Number	Men		Women		Total Number	Total Compensation
		Compensation	Number	Compensation	Number		
0	137	\$7,249,433	174	\$9,103,195	311	\$16,352,629	
1	213	12,835,957	279	15,220,243	492	28,056,200	
2	99	6,297,732	162	8,888,749	261	15,186,481	
3	66	4,589,391	84	4,914,681	150	9,504,071	
4	57	3,490,990	117	6,880,733	174	10,371,724	
5	75	4,855,438	109	6,389,265	184	11,244,703	
6	61	4,849,753	90	6,246,113	151	11,095,866	
7	58	4,033,588	87	5,731,517	145	9,765,105	
8	52	3,763,156	80	5,207,546	132	8,970,703	
9	47	3,769,750	69	4,439,422	116	8,209,172	
10	35	3,308,531	49	3,215,605	84	6,524,137	
11	45	3,412,431	38	2,435,017	83	5,847,447	
12	44	3,389,481	33	2,289,154	77	5,678,635	
13	33	2,588,068	21	1,373,650	54	3,961,718	
14	19	--	14	--	33	2,301,885	
15	26	2,023,746	27	1,970,328	53	3,994,074	
16	33	2,564,554	27	1,949,450	60	4,514,004	
17	15	--	20	1,891,517	35	3,242,105	
18	24	1,517,901	36	2,331,695	60	3,849,597	
19	20	1,505,940	22	1,372,298	42	2,878,238	
20	15	--	18	--	33	2,265,490	
21	21	1,842,139	9	--	30	2,406,983	
22	27	2,287,389	22	1,461,028	49	3,748,417	
23	30	2,279,477	38	2,339,161	68	4,618,638	

TABLE 7D – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Salaries of Members in Active Service Distributed by Years of Service as of January 1, 2024

General Employees

(Compensation in cells with fewer than 20 records has been suppressed)

Service	Number	Men		Women		Total Number	Total Compensation
		Compensation	Number	Compensation	Number		
24	29	\$1,958,883	31	\$1,896,675	60	\$3,855,558	
25	30	2,464,562	31	2,119,367	61	4,583,930	
26	23	1,742,876	17	--	40	2,971,596	
27	12	--	13	--	25	2,043,746	
28	11	--	15	--	26	2,026,259	
29	12	--	9	--	21	1,792,034	
30	9	--	14	--	23	1,641,504	
31	5	--	10	--	15	--	
32	7	--	5	--	12	--	
33	3	--	9	--	12	--	
34	4	--	10	--	14	--	
35	4	--	3	--	7	--	
36	2	--	4	--	6	--	
37	2	--	1	--	3	--	
38	--	--	3	--	3	--	
39	1	--	1	--	2	--	
40	--	--	2	--	2	--	
41	--	--	--	--	--	--	
42	--	--	1	--	1	--	
43	1	--	1	--	2	--	
44	--	--	1	--	1	--	
45	--	--	--	--	--	--	
46	--	--	--	--	--	--	
Total	1,407	\$98,636,771	1,806	\$111,343,556	3,213	\$209,980,327	

TABLE 7E – DETAILED TABULATIONS OF THE DATA

The Number and Annual Salaries of Members in Active Service Distributed by Age as of January 1, 2024

Deputy Sheriffs

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Men		Women		Total Number	Total Compensation
	Number	Compensation	Number	Compensation		
22	--	--	--	--	--	--
23	1	--	1	--	2	--
24	10	--	2	--	12	--
25	9	--	2	--	11	--
26	9	--	1	--	10	--
27	8	--	--	--	8	--
28	14	--	1	--	15	--
29	11	--	3	--	14	--
30	7	--	1	--	8	--
31	11	--	1	--	12	--
32	10	--	--	--	10	--
33	6	--	1	--	7	--
34	11	--	1	--	12	--
35	4	--	1	--	5	--
36	5	--	--	--	5	--
37	6	--	2	--	8	--
38	5	--	2	--	7	--
39	2	--	1	--	3	--
40	2	--	--	--	2	--
41	3	--	1	--	4	--
42	5	--	2	--	7	--
43	4	--	--	--	4	--

TABLE 7E – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Salaries of Members in Active Service Distributed by Age as of January 1, 2024

Deputy Sheriffs

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Number	Men		Women		Total Number	Total Compensation
		Compensation	Number	Compensation	Number		
44	3	--	--	--	--	3	--
45	5	--	1	--	--	6	--
46	2	--	--	--	--	2	--
47	8	--	1	--	--	9	--
48	5	--	2	--	--	7	--
49	1	--	1	--	--	2	--
50	6	--	--	--	--	6	--
51	10	--	2	--	--	12	--
52	13	--	3	--	--	16	--
53	8	--	1	--	--	9	--
54	11	--	1	--	--	12	--
55	3	--	2	--	--	5	--
56	3	--	--	--	--	3	--
57	--	--	--	--	--	--	--
58	2	--	1	--	--	3	--
59	--	--	--	--	--	--	--
60	--	--	--	--	--	--	--
61	--	--	--	--	--	--	--
Grand Total	223	\$16,210,981	38	\$2,778,108	261	\$18,989,089	

TABLE 7F – DETAILED TABULATIONS OF THE DATA

The Number and Annual Salaries of Members in Active Service Distributed by Years of Service as of January 1, 2024

Deputy Sheriffs

(Compensation in cells with fewer than 20 records has been suppressed)

Service	Number	Men		Women		Total Number	Total Compensation
		Compensation	Number	Compensation	Number		
0	8	--	1	--		9	--
1	12	--	5	--		17	--
2	17	--	3	--		20	\$1,326,526
3	18	--	2	--		20	1,349,687
4	26	\$1,758,912	4	--		30	2,030,899
5	10	--	--	--		10	--
6	13	--	3	--		16	--
7	10	--	1	--		11	--
8	11	--	3	--		14	--
9	--	--	1	--		1	--
10	6	--	--	--		6	--
11	4	--	--	--		4	--
12	3	--	--	--		3	--
13	--	--	1	--		1	--
14	6	--	--	--		6	--
15	2	--	--	--		2	--
16	--	--	--	--		--	--
17	1	--	--	--		1	--
18	2	--	--	--		2	--
19	1	--	--	--		1	--
20	1	--	--	--		1	--
21	1	--	--	--		1	--

TABLE 7F – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Salaries of Members in Active Service Distributed by Years of Service as of January 1, 2024

Deputy Sheriffs

(Compensation in cells with fewer than 20 records has been suppressed)

Service	Number	Men		Women		Total Number	Total Compensation
		Compensation	Number	Compensation	Number		
22	4	--	--	--	--	4	--
23	6	--	2	--	--	8	--
24	10	--	4	--	--	14	--
25	12	--	3	--	--	15	--
26	9	--	--	--	--	9	--
27	16	--	2	--	--	18	--
28	2	--	1	--	--	3	--
29	8	--	--	--	--	8	--
30	4	--	2	--	--	6	--
31	--	--	--	--	--	--	--
32	--	--	--	--	--	--	--
33	--	--	--	--	--	--	--
34	--	--	--	--	--	--	--
Total	223	\$16,210,981	38	\$2,778,108	261	\$18,989,089	

TABLE 7G – DETAILED TABULATIONS OF THE DATA

The Number and Annual Salaries of Members in Active Service Distributed by Age as of January 1, 2024

Elected Officials

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Men		Women		Total Number	Total Compensation
	Number	Compensation	Number	Compensation		
35	--	--	--	--	--	--
36	--	--	--	--	--	--
37	1	--	--	--	1	--
38	--	--	--	--	--	--
39	--	--	--	--	--	--
40	--	--	--	--	--	--
41	--	--	--	--	--	--
42	--	--	--	--	--	--
43	--	--	--	--	--	--
44	--	--	--	--	--	--
45	--	--	--	--	--	--
46	--	--	--	--	--	--
47	--	--	--	--	--	--
48	--	--	--	--	--	--
49	--	--	--	--	--	--
50	--	--	--	--	--	--
51	--	--	--	--	--	--
52	--	--	--	--	--	--
53	1	--	--	--	1	--
54	--	--	--	--	--	--
55	--	--	--	--	--	--
56	--	--	--	--	--	--

TABLE 7G – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Salaries of Members in Active Service Distributed by Age as of January 1, 2024

Elected Officials

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Number	Men		Women		Total Number	Total Compensation
		Compensation	Number	Compensation	Number		
57	--	--	--	--	--	--	--
58	--	--	--	--	--	--	--
59	--	--	--	--	--	--	--
60	1	--	--	--	--	1	--
61	--	--	--	--	--	--	--
62	--	--	1	--	--	1	--
63	1	--	--	--	--	1	--
64	--	--	--	--	--	--	--
65	--	--	--	--	--	--	--
66							
67	1	--	--	--	--	1	--
Total	5	--	--	1	--	6	--

TABLE 7H – DETAILED TABULATIONS OF THE DATA

The Number and Annual Salaries of Members in Active Service Distributed by Years of Service as of January 1, 2024

Elected Officials

(Compensation in cells with fewer than 20 records has been suppressed)

Service	Number	Men		Women		Total Number	Total Compensation
		Compensation	Number	Compensation	Number		
0	--	--	--	--	--	--	--
1	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--
3	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--
5	1	--	--	--	--	1	--
6	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--
9	--	--	--	--	--	--	--
10	1	--	--	--	--	1	--
11	--	--	--	--	--	--	--
12	--	--	--	--	--	--	--
13	--	--	--	--	--	--	--
14	--	--	--	--	--	--	--
15	--	--	--	--	--	--	--
16	--	--	--	--	--	--	--
17	1	--	--	--	--	1	--
18	--	--	--	--	--	--	--
19	--	--	--	--	--	--	--
20	--	--	--	--	--	--	--
21	--	--	--	--	--	--	--

TABLE 7H – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Salaries of Members in Active Service Distributed by Years of Service as of January 1, 2024

Elected Officials

(Compensation in cells with fewer than 20 records has been suppressed)

Service	Number	Men		Women		Total Number	Total Compensation
		Compensation	Number	Compensation	Number		
22	--	--	--	--	--	--	--
23	--	--	--	--	--	--	--
24	--	--	--	--	--	--	--
25	--	--	--	--	--	--	--
26	--	--	--	--	--	--	--
27	--	--	--	--	--	--	--
28	--	--	--	--	--	--	--
29	--	--	--	--	--	--	--
30	--	--	1	--	1	--	--
31	--	--	--	--	--	--	--
32	1	--	--	--	1	--	--
33	--	--	--	--	--	--	--
34	1	--	--	--	1	--	--
Total	5	--	1	--	6	--	--

TABLE 7I – DETAILED TABULATIONS OF THE DATA

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2024

All Members

Age	Number	Men Annuities	Number	Women Annuities	Total Number	Total Annuities
13	--	--	1	\$6,322	1	\$6,322
16	--	--	1	6,322	1	6,322
17	1	6,322	--	--	1	6,322
18	--	--	1	4,340	1	4,340
19	--	--	--	--	--	--
20	--	--	--	--	--	--
21	--	--	--	--	--	--
22	--	--	--	--	--	--
23	--	--	--	--	--	--
24	--	--	--	--	--	--
25	--	--	--	--	--	--
26	--	--	--	--	--	--
27	1	4,071	--	--	1	4,071
28	--	--	1	10,229	1	10,229
29	--	--	--	--	--	--
30	--	--	--	--	--	--
31	1	28,628	--	--	1	28,628
32	1	61,376	--	--	1	61,376
33	--	--	--	--	--	--
34	--	--	--	--	--	--
35	2	16,103	2	24,734	4	40,837
36	--	--	--	--	--	--
37	--	--	1	28,764	1	28,764
38	--	--	--	--	--	--
39	1	28,628	--	--	1	28,628
40	1	6,383	1	32,010	2	38,393

TABLE 7I – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2024

All Members

Age	Number	Men Annuities	Number	Women Annuities	Total Number	Total Annuities
41	1	\$18,114	2	\$16,008	3	\$34,122
42	--	--	--	--	--	--
43	1	23,518	3	29,766	4	53,284
44	2	60,799	3	44,215	5	105,014
45	--	--	1	18,096	1	18,096
46	1	39,736	1	6,965	2	46,701
47	2	85,011	--	--	2	85,011
48	2	60,813	2	67,387	4	128,200
49	4	103,608	1	53,164	5	156,772
50	6	121,099	3	71,164	9	192,263
51	6	262,629	4	130,732	10	393,361
52	12	471,887	8	268,973	20	740,860
53	10	425,362	12	402,687	22	828,049
54	22	870,358	10	364,424	32	1,234,782
55	15	505,417	20	575,847	35	1,081,264
56	24	984,261	28	671,732	52	1,655,993
57	26	989,601	33	855,793	59	1,845,394
58	32	1,033,203	42	1,252,405	74	2,285,608
59	27	1,104,750	49	1,379,774	76	2,484,524
60	58	1,710,249	103	2,243,253	161	3,953,502
61	54	1,474,320	85	1,796,874	139	3,271,194
62	76	1,782,367	102	2,064,618	178	3,846,985
63	59	1,466,316	133	2,766,577	192	4,232,893
64	86	2,219,525	131	2,528,702	217	4,748,227

TABLE 7I – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2024

All Members

Age	Number	Men Annuities	Number	Women Annuities	Total Number	Total Annuities
65	95	\$2,701,251	128	\$2,748,909	223	\$5,450,160
66	94	2,209,823	186	4,208,255	280	6,418,078
67	127	3,063,386	167	3,405,407	294	6,468,793
68	116	3,118,195	174	3,669,822	290	6,788,017
69	132	3,627,715	183	3,996,785	315	7,624,500
70	135	3,618,823	212	4,378,926	347	7,997,749
71	141	4,378,646	207	4,002,112	348	8,380,758
72	143	4,017,321	220	4,967,709	363	8,985,030
73	174	5,116,288	192	3,612,311	366	8,728,599
74	161	4,707,124	216	4,233,663	377	8,940,787
75	143	4,671,314	192	3,927,817	335	8,599,131
76	169	4,837,564	229	5,001,293	398	9,838,857
77	114	3,645,276	172	4,337,403	286	7,982,679
78	88	2,556,773	126	2,932,195	214	5,488,968
79	80	2,112,587	123	2,713,840	203	4,826,427
80	80	2,240,394	123	2,563,197	203	4,803,591
81	81	2,576,096	123	2,497,530	204	5,073,626
82	54	1,473,120	91	1,827,456	145	3,300,576
83	57	1,665,304	81	1,603,576	138	3,268,880
84	48	1,490,000	93	1,840,147	141	3,330,147
85	32	822,460	83	1,788,033	115	2,610,493
86	39	1,079,205	89	1,693,564	128	2,772,769
87	35	1,084,955	75	1,508,918	110	2,593,873
88	23	683,625	79	1,638,829	102	2,322,454
89	24	689,686	51	911,930	75	1,601,616

TABLE 7I – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2024

All Members

Age	Number	Men		Women		Total Number	Total Annuities
		Annuities	Number	Annuities	Number		
90	18	\$580,687	40	\$738,494	58	\$1,319,181	
91	26	672,052	50	917,582	76	1,589,634	
92	20	596,510	43	893,440	63	1,489,950	
93	12	350,838	52	880,508	64	1,231,346	
94	15	243,869	37	619,189	52	863,058	
95	6	155,714	34	493,154	40	648,868	
96	5	146,660	20	393,051	25	539,711	
97	1	41,757	13	164,892	14	206,649	
98	1	18,352	15	251,728	16	270,080	
99	4	139,306	7	108,426	11	247,732	
100	1	26,764	6	64,479	7	91,243	
101	--	--	3	46,077	3	46,077	
102	2	47,472	2	26,701	4	74,173	
103	1	8,771	--	--	1	8,771	
104	--	--	1	12,180	1	12,180	
Total	3,031	87,180,137	4,722	99,341,405	7,753	186,521,542	

TABLE 7J – DETAILED TABULATIONS OF THE DATA

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2024
Retired Members

Age	Number	Men		Women		Total Number	Total Annuities
		Annuities	Number	Annuities	Number		
49	1	\$29,169	--	--	1	\$29,169	
50	2	51,396	1	32,150	3	83,546	
51	5	211,473	4	130,732	9	342,205	
52	5	179,519	2	68,574	7	248,093	
53	6	262,266	8	274,459	14	536,725	
54	12	511,514	9	324,362	21	835,876	
55	11	387,611	14	471,564	25	859,175	
56	19	801,605	23	559,069	42	1,360,674	
57	25	973,654	26	675,968	51	1,649,622	
58	30	963,395	35	1,040,533	65	2,003,928	
59	23	920,154	35	958,400	58	1,878,554	
60	52	1,582,499	90	1,899,223	142	3,481,722	
61	50	1,349,146	78	1,623,617	128	2,972,763	
62	73	1,727,465	90	1,869,000	163	3,596,465	
63	57	1,408,192	116	2,462,901	173	3,871,093	
64	79	2,028,330	119	2,290,171	198	4,318,501	
65	90	2,566,760	117	2,479,126	207	5,045,886	
66	86	2,073,036	162	3,696,685	248	5,769,721	
67	118	2,866,999	155	3,208,009	273	6,075,008	
68	109	2,989,299	145	2,915,967	254	5,905,266	
69	122	3,440,183	163	3,397,089	285	6,837,272	
70	127	3,411,999	189	3,788,522	316	7,200,521	

TABLE 7J – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2024

Retired Members

Age	Number	Men		Women		Total Number	Total Annuities
		Annuities	Number	Annuities	Number		
71	133	\$4,177,389	187	\$3,548,488	320	\$7,725,877	
72	135	3,947,449	186	4,093,567	321	8,041,016	
73	168	4,992,543	173	3,040,922	341	8,033,465	
74	155	4,585,443	194	3,777,956	349	8,363,399	
75	132	4,487,306	162	3,331,292	294	7,818,598	
76	160	4,695,089	189	3,991,116	349	8,686,205	
77	107	3,557,125	149	3,825,880	256	7,383,005	
78	82	2,486,484	99	2,162,566	181	4,649,050	
79	76	2,087,204	97	2,093,216	173	4,180,420	
80	70	2,088,988	96	2,013,300	166	4,102,288	
81	76	2,488,242	96	1,977,717	172	4,465,959	
82	51	1,414,075	65	1,262,429	116	2,676,504	
83	50	1,587,292	51	1,017,283	101	2,604,575	
84	46	1,467,002	72	1,394,209	118	2,861,211	
85	31	810,095	59	1,217,284	90	2,027,379	
86	34	999,505	58	1,055,117	92	2,054,622	
87	29	1,018,399	48	914,624	77	1,933,023	
88	22	670,514	55	1,156,625	77	1,827,139	
89	23	684,265	32	481,993	55	1,166,258	
90	16	560,939	24	460,504	40	1,021,443	
91	24	669,583	29	507,482	53	1,177,065	
92	18	578,519	26	485,455	44	1,063,974	
93	9	318,975	32	595,589	41	914,564	

TABLE 7J – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2024
Retired Members

Age	Number	Men Annuities	Number	Women Annuities	Total Number	Total Annuities
94	11	\$222,402	20	\$316,443	31	\$538,845
95	5	148,269	19	312,389	24	460,658
96	5	146,660	8	126,728	13	273,388
97	1	41,757	3	30,715	4	72,472
98	1	18,352	9	142,812	10	161,164
99	4	139,306	4	70,800	8	210,106
100	1	26,764	3	25,449	4	52,213
101	--	--	2	13,304	2	13,304
102	1	37,525	2	26,701	3	64,226
103	1	8,771	--	--	1	8,771
104	--	--	1	12,174	1	12,174
Total	2,779	81,897,895	3,831	79,648,250	6,610	161,546,145

TABLE 7K – DETAILED TABULATIONS OF THE DATA

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2024

Disabled Members

Age	Number	Men		Women		Total Number	Total Annuities
		Annuities	Number	Annuities	Number		
27	1	\$4,071	--	--	--	1	\$4,071
37	--	--	1	28,764	--	1	28,764
42	--	--	--	--	--	--	--
43	1	23,518	--	--	--	1	23,518
44	1	48,299	--	--	--	1	48,299
45	--	--	--	--	--	--	--
46	1	39,736	--	--	--	1	39,736
47	2	85,011	--	--	--	2	85,011
48	2	60,813	1	52,456	--	3	113,269
49	1	50,931	1	53,164	--	2	104,095
50	2	56,901	--	--	--	2	56,901
51	1	51,156	--	--	--	1	51,156
52	7	292,368	3	106,157	--	10	398,525
53	4	163,096	3	103,316	--	7	266,412
54	10	358,843	1	40,062	--	11	398,905
55	2	103,126	3	81,527	--	5	184,653
56	4	176,084	4	74,841	--	8	250,925
57	1	15,948	4	141,810	--	5	157,758
58	2	69,809	5	185,076	--	7	254,885
59	4	184,596	8	294,030	--	12	478,626
60	5	120,076	8	183,068	--	13	303,144
61	2	107,743	3	80,597	--	5	188,340
62	1	24,527	3	48,408	--	4	72,935
63	--	--	5	132,456	--	5	132,456

TABLE 7K – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2024

Disabled Members

Age	Number	Men		Women		Total Number	Total Annuities
		Annuities	Number	Annuities	Number		
64	3	\$106,342	5	\$137,871	8	\$244,213	
65	4	68,334	1	25,240	5	93,574	
66	5	111,125	8	239,393	13	350,518	
67	5	130,834	3	52,582	8	183,416	
68	3	66,952	3	83,928	6	150,880	
69	4	91,870	2	35,693	6	127,563	
70	4	153,922	1	36,566	5	190,488	
71	4	163,472	1	15,048	5	178,520	
72	3	38,960	6	185,310	9	224,270	
73	1	37,595	3	65,140	4	102,735	
74	3	98,532	3	46,266	6	144,798	
75	3	82,709	3	50,003	6	132,712	
76	1	36,542	2	41,673	3	78,215	
77	1	27,173	1	10,866	2	38,039	
78	3	35,130	--	--	3	35,130	
79	1	7,776	3	54,219	4	61,995	
80	2	60,649	3	62,531	5	123,180	
81	2	52,299	3	38,655	5	90,954	
82	--	--	3	82,870	3	82,870	
83	1	23,414	2	43,440	3	66,854	
84	1	19,699	1	22,991	2	42,690	
85	--	--	1	16,140	1	16,140	
86	1	27,459	2	43,449	3	70,908	

TABLE 7K – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2024

Disabled Members

Age	Number	Men Annuities	Number	Women Annuities	Total Number	Total Annuities
87	1	\$30,135	1	\$11,502	2	\$41,637
88	--	--	1	25,247	1	25,247
89	--	--	1	15,730	1	15,730
90	--	--	--	--	--	--
91	--	--	2	51,952	2	51,952
92	--	--	1	15,510	1	15,510
93	--	--	--	--	--	--
94	--	--	1	16,039	1	16,039
95	--	--	1	16,929	1	16,929
96	--	--	--	--	--	--
97	--	--	--	--	--	--
98	--	--	--	--	--	--
99	--	--	--	--	--	--
100	--	--	1	17,242	1	17,242
Total	110	\$3,507,575	122	\$3,165,757	232	\$6,673,332

TABLE 7L – DETAILED TABULATIONS OF THE DATA

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2024
Beneficiaries

Age	Number	Men Annuities	Number	Women Annuities	Total Number	Total Annuities
13	--	--	1	\$6,322	1	\$6,322
16	--	--	1	6,322	1	6,322
17	1	6,322	--	--	1	6,322
18	--	--	1	4,340	1	4,340
22	--	--	--	--	--	--
23	--	--	--	--	--	--
24	--	--	--	--	--	--
25	--	--	--	--	--	--
26	--	--	--	--	--	--
27	--	--	--	--	--	--
28	--	--	1	10,229	1	10,229
29	--	--	--	--	--	--
30	--	--	--	--	--	--
31	1	28,628	--	--	1	28,628
32	1	61,376	--	--	1	61,376
33	--	--	--	--	--	--
34	--	--	--	--	--	--
35	2	16,103	2	24,734	4	40,837
36	--	--	--	--	--	--
37	--	--	--	--	--	--
38	--	--	--	--	--	--
39	1	28,628	--	--	1	28,628
40	1	6,383	1	32,010	2	38,393
41	1	18,114	2	16,008	3	34,122
42	--	--	--	--	--	--
43	--	--	3	29,766	3	29,766

TABLE 7L – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2024
Beneficiaries

Age	Number	Men		Women		Total Number	Total Annuities
		Annuities	Number	Annuities	Number		
44	1	\$12,500	3	\$44,215	4	\$56,715	
45	--	--	1	18,096	1	18,096	
46	--	--	1	6,965	1	6,965	
47	--	--	--	--	--	--	
48	--	--	1	14,932	1	14,932	
49	2	23,509	--	--	2	23,509	
50	2	12,803	2	39,014	4	51,817	
51	--	--	--	--	--	--	
52	--	--	3	94,243	3	94,243	
53	--	--	1	24,912	1	24,912	
54	--	--	--	--	--	--	
55	2	14,680	3	22,756	5	37,436	
56	1	6,573	1	37,822	2	44,395	
57	--	--	3	38,015	3	38,015	
58	--	--	2	26,796	2	26,796	
59	--	--	6	127,344	6	127,344	
60	1	7,674	5	160,962	6	168,636	
61	2	17,431	4	92,661	6	110,092	
62	2	30,375	9	147,210	11	177,585	
63	2	58,125	12	171,219	14	229,344	
64	4	84,853	7	100,660	11	185,513	
65	1	66,156	10	244,543	11	310,699	
66	3	25,662	16	272,176	19	297,838	

TABLE 7L – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2024
Beneficiaries

Age	Number	Men Annuities	Number	Women Annuities	Total Number	Total Annuities
67	4	\$65,552	9	\$144,816	13	\$210,368
68	4	61,944	26	669,928	30	731,872
69	6	95,662	18	564,004	24	659,666
70	4	52,902	22	553,838	26	606,740
71	4	37,785	19	438,575	23	476,360
72	5	30,913	28	688,832	33	719,745
73	5	86,151	16	506,249	21	592,400
74	3	23,150	19	409,442	22	432,592
75	8	101,299	27	546,522	35	647,821
76	8	105,933	38	968,504	46	1,074,437
77	6	60,979	22	500,657	28	561,636
78	3	35,159	27	769,630	30	804,789
79	3	17,607	23	566,406	26	584,013
80	8	90,756	24	487,366	32	578,122
81	3	35,555	24	481,158	27	516,713
82	3	59,045	23	482,156	26	541,201
83	6	54,597	28	542,853	34	597,450
84	1	3,299	20	422,947	21	426,246
85	1	12,366	23	554,608	24	566,974
86	4	52,242	29	594,998	33	647,240
87	5	36,419	26	582,792	31	619,211
88	1	13,111	23	456,957	24	470,068
89	1	5,421	18	414,206	19	419,627

TABLE 7L – DETAILED TABULATIONS OF THE DATA (CONTINUED)

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2024
Beneficiaries

Age	Number	Men		Women		Total Number	Total Annuities
		Annuities	Number	Annuities	Number		
90	2	\$19,748	16	\$277,990	18	\$297,738	
91	2	2,469	19	358,148	21	360,617	
92	2	17,992	16	392,475	18	410,467	
93	3	31,863	20	284,919	23	316,782	
94	4	21,467	16	286,706	20	308,173	
95	1	7,445	14	163,836	15	171,281	
96	--	--	12	266,323	12	266,323	
97	--	--	10	134,177	10	134,177	
98	--	--	6	108,916	6	108,916	
99	--	--	3	37,627	3	37,627	
100	--	--	2	21,788	2	21,788	
101	--	--	1	32,774	1	32,774	
102	1	9,944	--	--	1	9,944	
Total	142	\$1,774,670	769	\$16,527,395	911	\$18,302,065	

6408644v6/14308.002