

# Employees' Retirement System of the County of Milwaukee

## Actuarial Valuation and Review as of January 1, 2022

May 2022

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May 16, 2022

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

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of January 1, 2022, 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 2022 and the Budget Contribution for fiscal year 2023.

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".

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

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

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

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# Section 1: Actuarial Valuation Summary

## Purpose and Basis

This report was prepared by Segal to present a valuation of the Plan as of January 1, 2022. The valuation was 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, 2021, 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, 2022, provided by RPS;
- The unaudited assets of the Plan as of December 31, 2021, 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, 2021, were \$62,113,812. When combined with the employee contributions of \$13,390,188 and interest to the end of the year, the total contributions exceeded the actuarially determined contribution (referred to as the Actual Funding Contribution) for 2021 by \$4,280,697.
3. The results of this January 1, 2022, actuarial valuation are used to determine the Actual Funding Contribution for the fiscal year ending December 31, 2022, and the Budget Contribution for the fiscal year ending December 31, 2023. The Actual Funding Contribution for the year ending December 31, 2022 is \$72,493,578, a decrease of \$1,541,847 from the Actual Funding Contribution for the year ending December 31, 2021. The amortization bases of the unfunded actuarial accrued liability are shown in *Section 2, Exhibit F* of this report.
4. The 2023 Budget Contribution, expected to be contributed in 2023, is \$72,128,000.
5. The funded ratio (the ratio of the actuarial value of assets to actuarial accrued liability) is 76.6%, compared to the prior year's funded ratio of 75.3%. 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 85.6%, compared to 77.8% 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 17.58% for the January 1, 2021 to December 31, 2021 plan year. The return on the actuarial value of assets was 9.21% for the same period due to the recognition of prior years' investment gains and losses. This resulted in an actuarial gain 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 89.50% of the market value of assets. The investment experience in the past several years has only been partially recognized in the actuarial value of assets. As the deferred net gain is recognized in future years, the cost of the Plan is likely to decrease unless the net gain is offset by future experience. The recognition of the deferred market gain of \$206,871,183 will also have an impact on the future funded ratio. If the net deferred gain were recognized immediately in the actuarial value of assets, the Actual Funding Contribution would decrease by \$17,835,258 to \$54,658,320.
8. The unfunded actuarial accrued liability is \$537,720,748, which is a decrease of \$31,464,757 since the prior valuation.
9. The actuarial gain from investment experience is \$28,669,040.
10. The net experience loss from sources other than investment experience was approximately 0.60% of the actuarial accrued liability. Additional detail regarding this loss is shown in *Section 2, Exhibit C*.

11. 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 December 31, 2021, and December 31, 2022, 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.
12. This actuarial report as of January 1, 2022, 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

		2022	2021
<b>Actuarially determined contributions:</b>	• Actual Funding Contribution for fiscal 2022 (and 2021)	\$72,493,578	\$74,035,425
	• Amount actually contributed for fiscal 2022 (and 2021)	TBD	75,504,000
	• Budget Contribution for fiscal 2023 (and 2022)	\$72,128,000	\$74,238,000
<b>Actuarial accrued liability for plan year beginning January 1:</b>	• Retired participants and beneficiaries	\$1,854,929,167	\$1,853,564,794
	• Inactive vested participants	89,429,529	85,780,256
	• Active participants	356,858,374	365,905,574
	• Total	2,301,217,070	2,305,250,624
	• Employer normal cost for plan year beginning January 1 (as of January 1)	17,857,874	17,592,776
<b>Assets for plan year beginning January 1:</b>	• Market value of assets (MVA)	\$1,970,367,505	\$1,792,916,838
	• Actuarial value of assets (AVA)	1,763,496,322	1,736,065,119
	• Actuarial value of assets as a percentage of market value of assets	89.50%	96.83%
<b>Funded status for plan year beginning January 1:</b>	• Unfunded actuarial accrued liability based on MVA	\$330,849,565	\$512,333,786
	• Funded percentage on MVA basis	85.62%	77.78%
	• Unfunded actuarial accrued liability based on AVA	\$537,720,748	\$569,185,505
	• Funded percentage on AVA basis	76.63%	75.31%
	• Remaining amortization period (average)	15	16
<b>Key assumptions:</b>	• Interest rate for determining liability as of January 1	7.50%	7.50%
	• Inflation rate	2.50%	2.50%
	• Interest rate for Budget Contribution for fiscal 2023 (and 2022)	7.50%	7.50%
<b>Demographic data for plan year beginning January 1:</b>	• Number of retired members and beneficiaries	7,829	7,886
	• Number of vested former members	1,305	1,262
	• Number of active members	3,325	3,529
	• Total payroll	\$202,112,385	\$204,754,607
	• Average pay	60,786	58,021



## 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.

In order to prepare a valuation, Segal relies on a number of input items. These include:

<b>Plan of benefits</b>	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.
<b>Membership data</b>	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.
<b>Assets</b>	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.
<b>Actuarial assumptions</b>	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.

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: 2013 – 2022

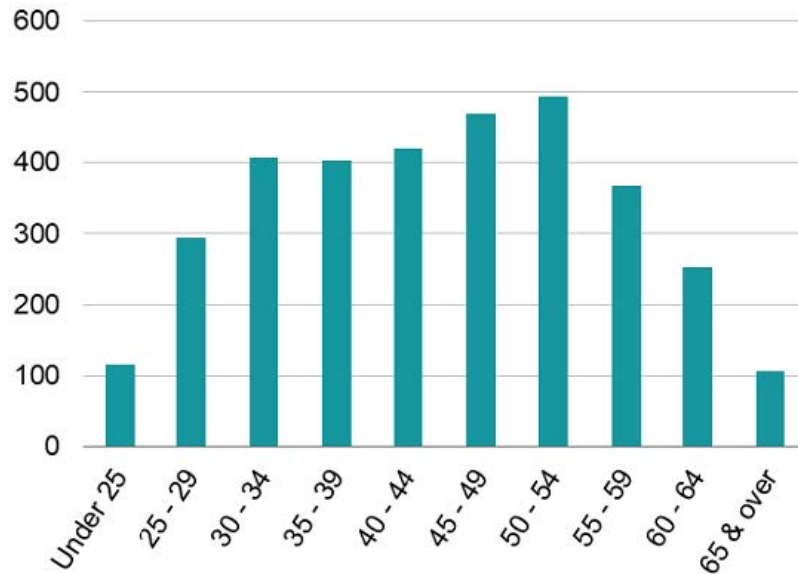
As of January 1	Active Members	Vested Terminated Members	Retired Members and Beneficiaries	Total Non-Actives	Ratio of Non-Actives to Actives
2013	3,934	1,196	7,867	9,063	2.30
2014	3,911	1,411	7,940	9,351	2.39
2015	3,680	1,370	7,979	9,349	2.54
2016	3,619	1,387	7,991	9,378	2.59
2017	3,488	1,394	8,063	9,457	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

## Active Members

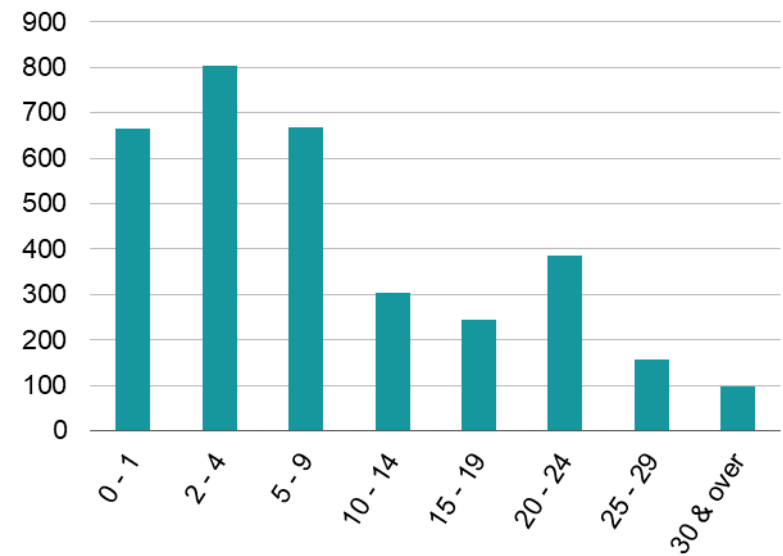
Plan costs are affected by the age, years of creditable service and payroll of active members. In this year's valuation, there are 3,325 active members with an average age of 44.7, average years of benefit service of 9.6, and average pay of \$60,786. The 3,529 active members in the prior valuation had an average age of 44.5, average benefit service of 9.4 years, and average pay of \$58,201.

### Distribution of Active Members as of January 1, 2022

ACTIVES BY AGE



ACTIVES BY YEARS OF CREDITED SERVICE



## Inactive Members

In this year's valuation, there are 1,305 inactive members with a vested right to a deferred or immediate benefit. Average monthly annuities for these members are \$703. For comparison, in the previous valuation, there were 1,262 inactive members with a vested right to a deferred or immediate benefit. Average monthly annuities for these members were \$701.

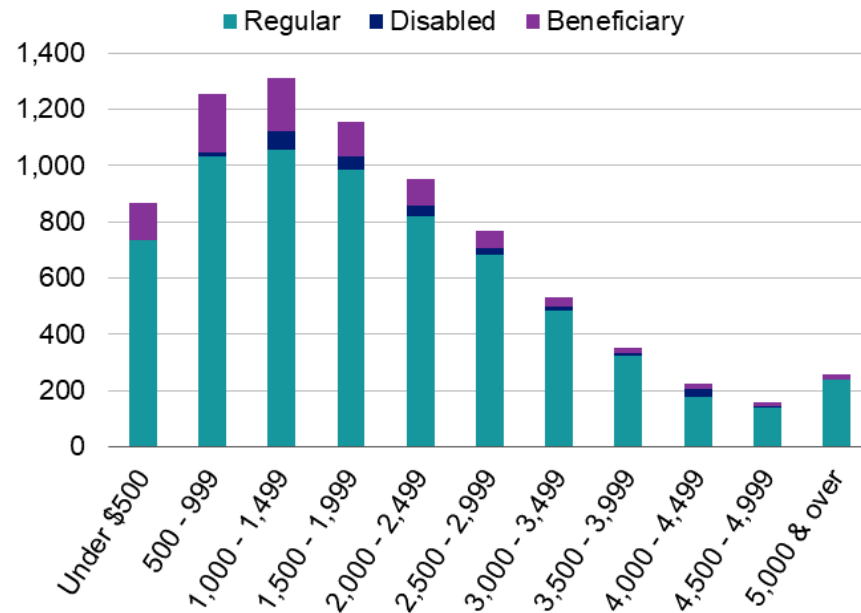
## Retired Members and Beneficiaries

As of January 1, 2022, 6,916 retired members (including disability retirees) and 913 beneficiaries are receiving total monthly benefits of \$15,342,878. For comparison, in the previous valuation, there were 6,975 retired members and 911 beneficiaries receiving monthly benefits of \$15,218,670.

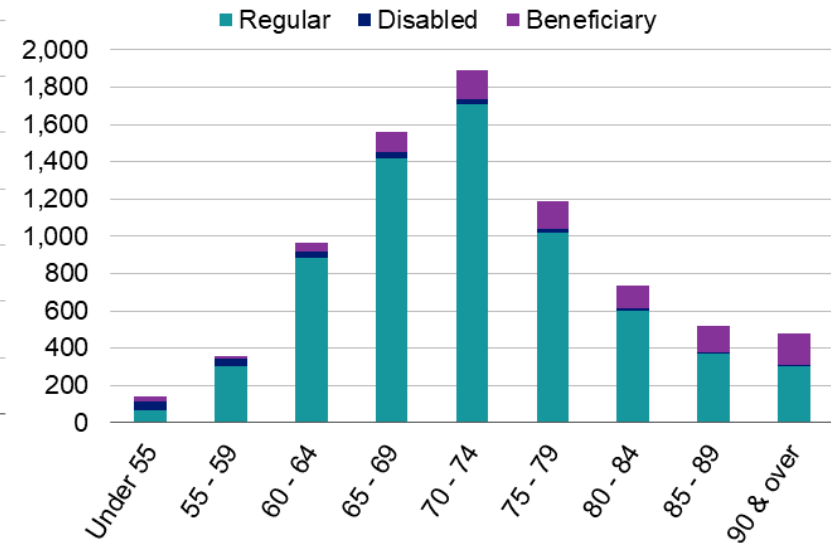
As of January 1, 2022, the average monthly benefit for retired members is \$2,007, compared to \$1,981 in the previous valuation. The average age for retired members is 72.5 in the current valuation, compared with 72.2 in the prior valuation.

### Distribution of Pensioners as of January 1, 2022

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: 2013 – 2022

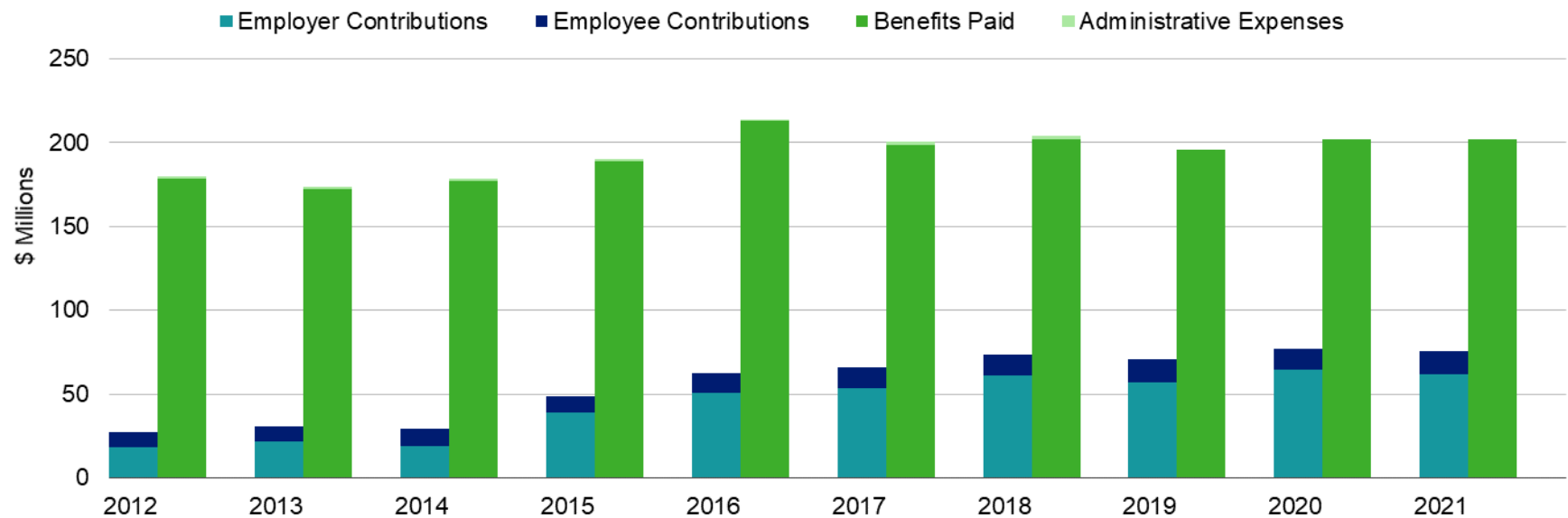
As of January 1	Active Members			Retired Members		
	Count	Average Age	Average Service	Count	Average Age	Average Monthly Amount
2013	3,934	45.8	11.7	6,999	70.5	\$1,733
2014	3,911	46.0	11.6	7,099	70.6	1,756
2015	3,680	46.0	11.7	7,092	70.8	1,782
2016	3,619	45.7	11.4	7,077	71.0	1,829
2017	3,488	45.2	10.3	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

## 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 \$127 million in 2021) 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, 2012 – 2021



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, 2021

<b>1</b>	Market value of assets, December 31, 2021			\$1,970,367,505
		<b>Original</b>	<b>Percent</b>	<b>Unrecognized</b>
<b>2</b>	Calculation of unrecognized return	<b>Amount **</b>	<b>Deferred</b>	<b>Amount***</b>
(a)	Year ended December 31, 2021*	\$174,424,625	90%	\$156,982,162
(b)	Year ended December 31, 2020	53,834,842	80	43,067,872
(c)	Year ended December 31, 2019	124,974,770	70	87,482,339
(d)	Year ended December 31, 2018	-170,935,242	60	-102,561,144
(e)	Year ended December 31, 2017	121,516,124	50	60,758,060
(f)	Year ended December 31, 2016	-23,448,242	40	-9,379,296
(g)	Year ended December 31, 2015	-103,841,093	30	-31,152,327
(h)	Year ended December 31, 2014	-50,790,631	20	-10,158,126
(i)	Year ended December 31, 2013	118,316,429	10	11,831,643
(j)	Year ended December 31, 2012	--	0	--
(k)	Total unrecognized return			206,871,183
<b>3</b>	Actuarial value of assets as of December 31, 2021: <b>(1) - (2k)</b>			<u>\$1,763,496,322</u>
<b>4</b>	Actuarial value as a percentage of market value: <b>(3) ÷ (1)</b>			89.50%

\* Derivation of gain/(loss) for the year ending December 31, 2021 is shown on page 19

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

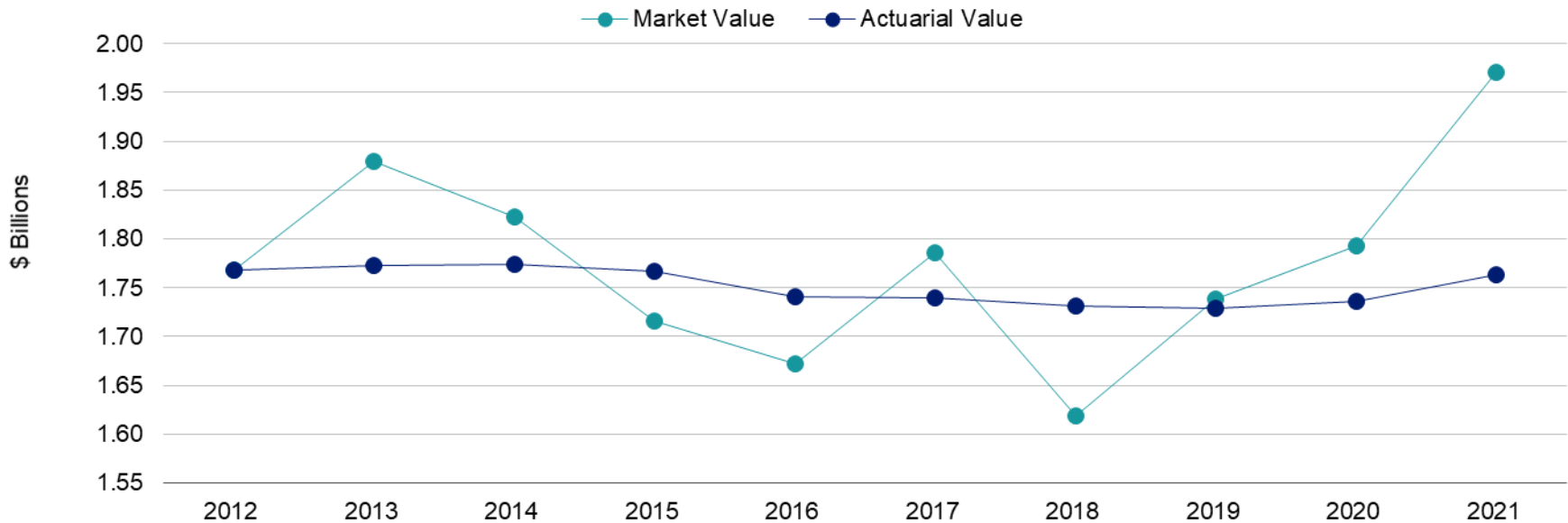
\*\*\*Recognition at 10% per year over ten years

Assets were re-established at market value on January 1, 2013.



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, 2012 – 2021



## 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 gain is \$14,749,782, which includes \$28,669,040 from investment gains and \$13,919,258 in losses from all other sources. The net experience variation from individual sources other than investments was 0.60% 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, 2021

<b>1</b>	Net gain/(loss) from investments*	\$28,669,040
<b>2</b>	Net gain/(loss) from other experience	(\$13,919,258)
<b>3</b>	Net experience gain/(loss): <b>1 + 2</b>	\$14,749,782

\* 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 17.58% for the year ended December 31, 2021.

For valuation purposes, the assumed rate of return on the actuarial value of assets is 7.50%. The actual rate of return on an actuarial basis for the 2021 plan year was 9.21%. Since the actual return for the year was greater than the assumed return, the Plan experienced an actuarial gain during the year ended December 31, 2021 with regard to its investments.

### Investment Experience

	Year Ended December 31, 2021		Year Ended December 31, 2020	
	Market Value	Actuarial Value	Market Value	Actuarial Value
<b>1</b> Investment income	\$304,173,201	\$154,153,737	\$179,567,176	\$132,695,030
<b>2</b> Average value of assets	1,729,981,008	1,673,129,289	1,676,431,125	1,666,451,552
<b>3</b> Rate of return: <b>1 ÷ 2</b>	17.58%	9.21%	10.71%	7.96%
<b>4</b> Assumed rate of return	7.50%	7.50%	7.50%	7.50%
<b>5</b> Expected investment income: <b>2 x 4</b>	129,748,576	125,484,697	125,732,334	124,983,866
<b>6</b> Actuarial gain/(loss): <b>1 – 5</b>	<u>\$174,424,625</u>	<u>\$28,669,040</u>	<u>\$53,834,842</u>	<u>\$7,711,164</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 18 years, including averages over select time periods.

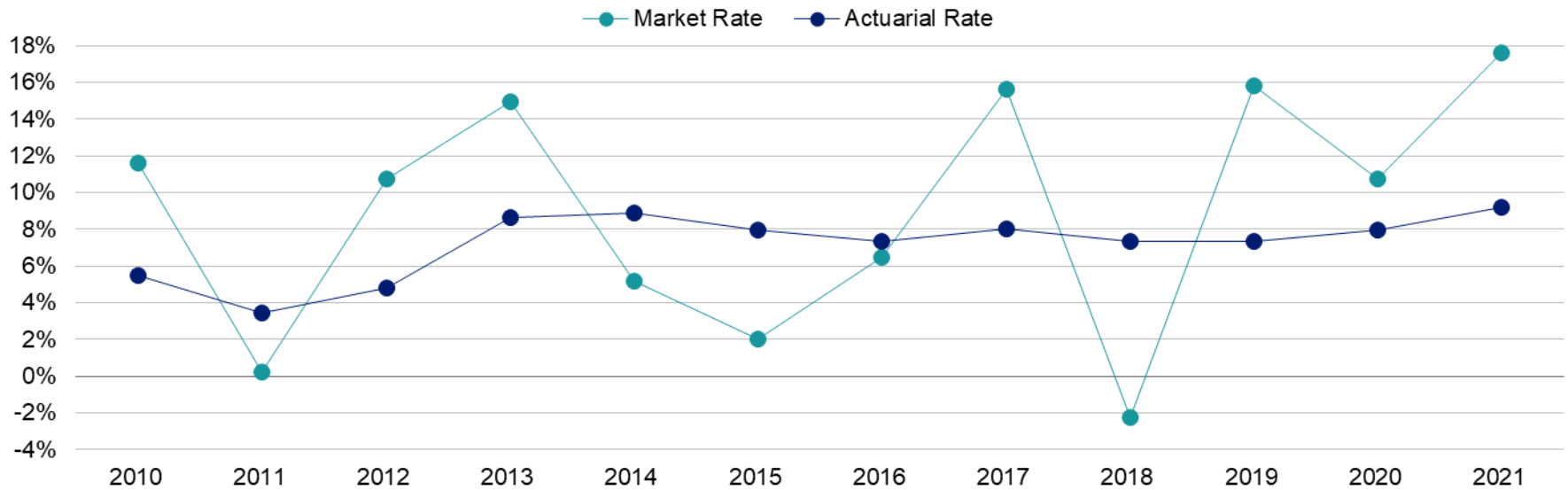
### Investment Return – Actuarial Value vs. Market Value: 2004 – 2021

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
					2012	\$84,397,065	4.79%	\$178,833,104	10.74%
					2013	146,900,302	8.66	253,385,088	14.93
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
							7.97%		11.25%
							7.74%		9.50%
							7.06%		6.95%

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, 2012 - 2021



## 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, 2021, amounted to \$13,919,258, which is 0.60% of the actuarial accrued liability.

### Experience Gain/(Loss) Due to Demographics For Year Ended December 31, 2021

Net turnover	-\$1,420,398
Retirement	-12,212,320
Mortality (more deaths than expected)	802,554
Disability retirements	-683,092
Salary increase for continuing actives	-1,649,263
Miscellaneous	<u>1,089,094</u>
<b>Total</b>	<b>-\$13,919,258</b>

## D. Changes in the Actuarial Accrued Liability

The actuarial accrued liability as of January 1, 2022, is \$2,301,217,070, a decrease of \$4,033,554, or 0.2%, 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

- No actuarial assumptions were changed in this valuation
- Details on actuarial assumptions and methods are in *Section 5, Exhibit I*.

### Plan Provisions

- There were no plan provision changes is reflected in this valuation:
- 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, 2021

<b>1</b>	Unfunded actuarial accrued liability at beginning of year	\$569,185,505
<b>2</b>	Normal cost at beginning of year (includes expense reimbursement payable to County)	17,592,776
<b>3</b>	Total contributions	-75,504,000
<b>4</b>	Interest	
	• For whole year on <b>1 + 2</b>	\$44,008,371
	• For partial year on <b>3</b> (See <i>Exhibit J</i> )	<u>-2,812,122</u>
	Total interest	<u>41,196,249</u>
<b>5</b>	Expected unfunded actuarial accrued liability	\$552,470,530
<b>6</b>	Changes due to:	
	• Experience (gain)/loss	-14,749,782
	• Assumptions	0
	• Funding method	0
	• Plan provisions	<u>0</u>
	Total changes	<u>-\$14,749,782</u>
<b>7</b>	Unfunded actuarial accrued liability at end of year	<u>\$537,720,748</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, 2014 and amortized over 21 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 increase by the payroll growth assumption of 1.75%, which reflects the payroll increase assumption of 3.5%, limited to reflect the anticipated increases in the County's tax base.

### Actual Funding Contribution Amortization Schedule for 2022

Type	Date Established	Initial Period	Initial Amount	Annual Payment*	Years Remaining	Outstanding Balance
Reestablished UAAL	01/01/2015	21	\$448,982,279	\$39,841,213	14	\$399,843,614
Increase to UAAL	01/01/2016	20	49,830,707	4,455,369	14	44,713,775
Actuarial Loss	01/01/2017	20	26,129,846	2,292,490	15	24,069,138
MyChoice Contribution	01/01/2017	20	(2,918,641)	(256,066)	15	(2,688,464)
Actuarial Gain	01/01/2018	20	(3,290,263)	(283,271)	16	(3,098,291)
Contribution Variance	01/01/2018	5	(1,917,965)	(445,959)	1	(445,959)
Change in Assumptions	01/01/2018	20	63,931,243	5,504,083	16	60,201,149
Actuarial Loss	01/01/2019	20	6,600,732	558,076	17	6,335,569
Contribution Variance	01/01/2019	5	(4,687,868)	(1,089,053)	2	(2,102,125)
Actuarial Gain	01/01/2020	20	(9,111,095)	(756,502)	18	(8,885,336)
Contribution Variance	01/01/2020	5	(3,246,621)	(746,466)	3	(2,086,793)
Change in Assumptions	01/01/2020	20	52,178,675	4,332,442	18	50,885,768
Actuarial Gain	01/01/2021	20	(5,769,471)	(470,805)	19	(5,704,770)
Contribution Variance	01/01/2021	5	(5,177,416)	(1,190,395)	4	(4,286,048)
Actuarial Gain	01/01/2022	20	(14,749,782)	(1,182,923)	20	(14,749,782)
Contribution Variance	01/01/2022	5	(4,280,697)	(984,221)	5	(4,280,697)
<b>Total</b>				<b>\$49,578,012</b>		<b>\$537,720,748</b>

\* Level percentage, except contribution variances

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 2023

Type	Date Established	Initial Period	Initial Amount	Annual Payment*	Years Remaining	Outstanding Balance
Reestablished UAAL	01/01/2015	21	\$448,982,279	\$40,538,434	13	\$387,002,581
Increase to UAAL	01/01/2016	20	49,830,707	4,533,338	13	43,277,786
Actuarial Loss	01/01/2017	20	26,129,846	2,332,609	14	23,409,896
MyChoice Contribution	01/01/2017	20	(2,918,641)	(260,547)	14	(2,614,829)
Actuarial Gain	01/01/2018	20	(3,290,263)	(288,229)	15	(3,026,147)
Change in Assumptions	01/01/2018	20	63,931,243	5,600,405	15	58,799,346
Actuarial Loss	01/01/2019	20	6,600,732	567,843	16	6,210,805
Contribution Variance	01/01/2019	5	(4,687,868)	(1,089,052)	1	(1,089,052)
Actuarial Gain	01/01/2020	20	(9,111,095)	(769,741)	17	(8,738,496)
Contribution Variance	01/01/2020	5	(3,246,621)	(746,465)	2	(1,440,851)
Change in Assumptions	01/01/2020	20	52,178,675	4,408,260	17	50,044,826
Actuarial Gain	01/01/2021	20	(5,769,471)	(479,044)	18	(5,626,513)
Contribution Variance	01/01/2021	5	(5,177,416)	(1,190,395)	3	(3,327,827)
Actuarial Gain	01/01/2022	20	(14,749,782)	(1,203,624)	19	(14,584,374)
Contribution Variance	01/01/2022	5	(4,280,697)	(984,220)	4	(3,543,711)
Actuarial Gain	01/01/2023	20	(24,405,158)	(1,957,278)	20	(24,405,158)
Contribution Variance	01/01/2023	5	(1,744,422)	(401,079)	5	(1,744,422)
<b>Total</b>				<b>\$52,257,056</b>		<b>\$498,603,860</b>

\* Level percentage, except contribution variances

For the 2022 Budget Contribution, a base for unexpected change in the unfunded actuarial accrued liability is added and amortized over 20 years. This gain is based on the amount of the deferred investment gain that will be recognized in the actuarial value of assets in the January 1, 2023 valuation. A base for a contribution variance for 2023 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 2022.

## 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		
		2023	2022	
		Budget	Actual	Budget
<b>1</b>	Total normal cost, adjusted to end of year	\$19,870,000	\$19,197,215	\$19,575,000
<b>2</b>	Net annual amortizations, adjusted to end of year	52,258,000	53,296,363	54,663,000
<b>3</b>	Expenses	<u>0</u>	<u>0</u>	<u>0</u>
<b>4</b>	Total contribution: <b>1 + 2 + 3, not less than zero</b>	72,128,000	72,493,578	\$74,238,000

The Actual Funding Contribution and 2023 Budget Contribution are based on participant data as of January 1, 2022.

For the 2023 Budget Contribution, the Normal Cost for 2023 is assumed to be 3.5% higher than the 2022 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.

## H. State Mandated Member Contributions

The following table develops the member contribution rates for 2023. Public Safety and General employees contribute 50% of the allocated cost of the 2022 actuarially determined contribution.

### Member Contribution Rates

	Non-Contributors	Public Safety	General	All Members	
<b>Valuation Results as of January 1, 2022</b>					
<b>1</b>	Present value of future benefits				
	a) Active members *	\$0	\$89,018,559	\$378,783,911	\$467,802,470
	b) Participants with deferred benefits	89,429,529	0	0	89,429,529
	c) Retirees and beneficiaries	1,854,929,168	0	0	1,854,929,168
	d) Total	1,944,358,697	89,018,559	378,783,911	2,412,161,167
<b>2</b>	Present value of future normal cost	0	21,820,453	89,123,644	110,944,097
<b>3</b>	Actuarial accrued liability: <b>1 – 2</b>	1,944,358,697	67,198,106	289,660,267	2,301,217,070
<b>4</b>	Actuarial value of assets	1,490,024,325	51,496,060	221,975,937	1,763,496,322
<b>5</b>	Funded percentage: <b>4 ÷ 3</b>	76.6%	76.6%	76.6%	76.6%
<b>6</b>	Unfunded actuarial accrued liability: <b>3 – 4</b>	\$454,334,372	\$15,702,046	\$67,684,330	\$537,720,748
<b>7</b>	Total normal cost for the plan year	-	3,186,803	14,671,071	17,857,874
<b>Projected Member Contribution for 2023</b>					
<b>1</b>	Annual contribution for 2022				
	a) Normal cost with interest	0	3,425,813	15,771,402	19,197,215
	b) Net annual amortization payments **	45,031,496	1,556,313	6,708,554	53,296,363
	c) Expenses	0	0	0	0
	d) Total contribution: <b>a + b + c, not less than zero</b>	45,031,496	4,982,126	22,479,956	72,493,578
<b>2</b>	Member contribution (50% of <b>1d</b> for Contributors)	0	2,491,063	11,239,978	13,731,041
<b>3</b>	Expected salaries in 2022	0	24,407,774	177,704,611	202,112,385
<b>4</b>	Member contribution rate: <b>2 ÷ 3 ÷ 1.075</b> <sup>1/2</sup>	N/A	9.8%	6.1%	N/A

\* The actives in the Public Safety group include 328 members comprised of Represented Firefighters and Sheriffs and Non-Represented Firefighters and Sheriffs.

\*\* The net annual amortization payments for the contributors are prorated based on the contributors' actuarial accrued liability compared to total actuarial accrued liability of the retirement system.

# 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 2022 to 2023

		Amount
<b>1</b>	2022 Budget Contribution	\$74,238,000
<b>2</b>	Increase/(decrease) during 2021 due to:	
	a) Unanticipated liability loss/(gain) with interest / normal cost more (less) than projected	-\$432,000
	b) Asset experience different than expected	-1,504,000
	c) 2021 expenses other than assumed	0
	d) 2021 contribution variance other than assumed	192,000
	e) Change due to assumption/method/plan changes	0
	f) Total	<u>-\$1,744,000</u>
<b>3</b>	2021 Actual Contribution (rounded): <b>1 + 2</b>	\$72,494,000
<b>4</b>	Expected increase/(decrease) during 2022 due to:	
	a) Normal cost and existing amortization bases	\$2,169,000
	b) Phase-in of deferred investment (gains) losses	-2,104,000
	c) Increase in expenses	0
	d) Expected contribution variance for 2022	-431,000
	e) Full recognition of bases	0
	f) Change due to assumption/method/plan changes	0
	g) Total	<u>-\$366,000</u>
<b>5</b>	2023 Budget Contribution: <b>3 + 4</b>	\$72,128,000

## 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 2021 plan year.

### Calculation of Contribution Variance

		Item			Amount
<b>1</b>	Total Actual Funding Contribution, end-of-year basis, for 2021 plan year (from January 1, 2021 actuarial valuation report)				\$74,035,425
<b>2</b>	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
	06/30/2021*	50.7%	<u>62,113,812</u>	<u>2,319,068</u>	<u>64,432,880</u>
	Total		\$62,113,812	\$2,319,068	\$64,432,880
<b>3</b>	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%	\$13,390,188	\$493,054	\$13,883,242
<b>4</b>	Variance from funding calculation amount: <b>2 + 3 - 1</b>				\$4,280,697

\* Assumed employer contributions are made mid-year.

\*\* Interest to December 31, 2021 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 – 2022

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	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, 2022	January 1, 2021
Liabilities		
• Present value of benefits for retired participants	\$1,854,929,168	\$1,853,564,794
• Present value of benefits for inactive former participants	89,429,529	85,780,256
• Present value of benefits for active participants	<u>467,802,470</u>	<u>473,824,724</u>
<b>Total liabilities</b>	<b>2,412,161,167</b>	<b>2,413,169,774</b>
Assets		
• Total valuation value of assets	\$1,763,496,322	\$1,736,065,119
• Present value of future employer and employee contributions for:		
» Future Normal Costs	110,944,097	107,919,150
» Unfunded actuarial accrued liability	<u>537,720,748</u>	<u>569,185,505</u>
<b>Total of current and future assets</b>	<b><u>\$2,412,161,167</u></b>	<b><u>\$2,413,169,774</u></b>



## M. 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 \$1.97 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 \$19.7 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 \$197 million in the asset value. A 10% increase in assets would cause the unfunded liability (market value basis) to decrease from \$538 million to \$341 million. Likewise, a 10% decrease in the asset value, would cause the unfunded liability to increase from \$538 million to \$735 million.

The market value rate of return over the last ten years has ranged from a low of -2.2% 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 \$6.5 million. The actuarial funding contribution would increase from \$72.5 million to \$79.0 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 2.7. For the prior year, benefits paid were \$127 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, 2021, the retired life actuarial accrued liability represents 81% 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
	2022	2021	
<b>Active members in valuation:</b>			
• Number	3,325	3,529	-5.8%
• Average age	44.8	44.5	+0.3
• Average years of benefit service	9.6	9.4	+0.2
• Total payroll	\$202,112,385	\$204,754,607	-1.3%
• Average pay	60,786	58,021	+4.8%
• Total active vested members	1,918	1,955	-1.9%
<b>Inactive members:</b>			
• Number of terminated vested	1,305	1,262	+3.4%
• Average age	51.8	51.7	+0.1
<b>Retired members:</b>			
• Number in pay status	6,667	6,720	-0.8%
• Average age	72.7	72.4	+0.3
• Average monthly benefit	\$1,997	\$1,973	+1.2%
<b>Disability retirees:</b>			
• Number in pay status	249	255	-2.4%
• Average age	65.5	65.3	+0.2
• Average monthly benefit	\$2,273	\$2,195	+3.6%
<b>Beneficiaries:</b>			
• Number in pay status	913	911	+0.2%
• Average age	78.2	78.9	-0.7
• Average monthly benefit	\$1,601	\$1,536	+4.2%

## Exhibit B – Reconciliation of Membership Data

	Active Members	Vested Terminated Members	Disability Retirees	Retired Members	Beneficiaries	Total
• <b>Number as of January 1, 2021</b>	<b>3,529</b>	<b>1,262</b>	<b>255</b>	<b>6,720</b>	<b>911</b>	<b>12,677</b>
• New participants	397	N/A	N/A	N/A	N/A	397
• Terminations – with vested rights	(91)	91	-	-	-	-
• Terminations – without vested rights	(158)	N/A	N/A	N/A	N/A	(158)
• Retirements	(120)	(67)	N/A	187	N/A	-
• New disabilities	(4)	(1)	5	N/A	N/A	-
• Return to work / rehire	21	(6)	-	-	N/A	15
• Died with beneficiary	(1)	-	-	(52)	53	-
• Died without beneficiary	(5)	(3)	(11)	(199)	(67)	(285)
• Lump sum cash-outs	(243)	(19)	-	(1)	-	(263)
• Certain period expired	N/A	N/A	-	-	(11)	(11)
• Data adjustments / Show-ups*	-	48	-	12	27	87
• <b>Number as of January 1, 2022</b>	<b>3,325</b>	<b>1,305</b>	<b>249</b>	<b>6,667</b>	<b>913</b>	<b>12,459</b>

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

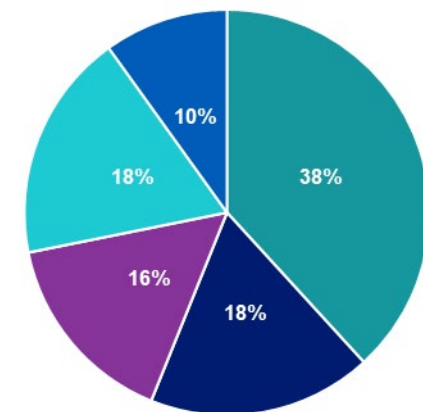
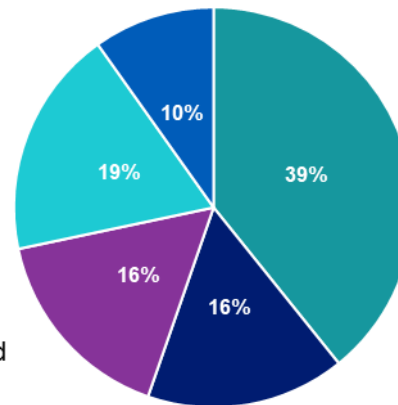
## Exhibit C – Summary Statement of Income and Expenses on a Market Value Basis

	Year Ended December 31, 2021	Year Ended December 31, 2020
Net assets at market value at the beginning of the year	\$1,792,916,838	\$1,738,628,225
<b>Contribution income:</b>		
• Employer contributions	\$62,113,812	\$64,558,405
• Member contributions	13,390,188	12,342,595
• Less administrative expenses payable to the County	<u>0</u>	<u>0</u>
<i>Net contribution income</i>	\$75,504,000	\$76,901,000
Net other income	\$0	\$0
<b>Investment income:</b>		
• Net appreciation in fair value	\$284,654,691	\$163,661,682
• Interest and dividends	7,280,980	9,038,617
• Securities lending income	85,413	119,257
• Other income	18,156,724	12,751,234
• Less securities lending rebates and fees, net	-27,299	-38,128
• Less administrative expenses payable by System	-3,879,753	-3,899,576
• Less investment expenses	<u>-2,097,555</u>	<u>-2,065,910</u>
<i>Net investment income</i>	\$304,173,201	\$179,567,176
<b>Total income available for benefits</b>	<b>\$379,677,201</b>	<b>\$256,468,176</b>
<b>Less benefit payments:</b>		
• Benefits paid to retirees and beneficiaries	-\$199,326,814	-\$199,841,888
• Refunds of contributions	<u>-2,899,720</u>	<u>-2,337,675</u>
<i>Net benefit payments</i>	-\$202,226,534	-\$202,179,563
<b>Change in reserve for future benefits</b>	<b>\$177,450,667</b>	<b>\$54,288,613</b>
<b>Net assets at market value at the end of the year</b>	<b>\$1,970,367,505</b>	<b>\$1,792,916,838</b>

## Exhibit D – Summary Statement of Plan Assets

	December 31, 2021	December 31, 2020
Cash equivalents	\$66,053,830	\$61,726,546
Total accounts receivable	3,817,689	7,544,326
Other assets	44,125,976	18,907,077
<b>Investments:</b>		
• Fixed Income	\$315,088,223	\$314,079,620
• Domestic and international equities	765,832,253	670,092,586
• Private equity	319,281,062	276,134,074
• Diversifying strategies	360,756,892	319,751,606
• Real estate and REITs	<u>148,324,710</u>	<u>155,265,295</u>
Total investments at market value	\$1,909,283,140	\$1,735,323,181
Total assets	\$2,023,280,635	\$1,823,501,130
Total liabilities	-52,913,130	-30,584,292
<b>Net assets at market value</b>	<b>\$1,970,367,505</b>	<b>\$1,792,916,838</b>
<b>Net assets at actuarial value</b>	<b>\$1,763,496,322</b>	<b>\$1,736,065,119</b>

- Domestic and International Equities
- Fixed Income
- Private Equity
- Diversifying Strategies
- Real Estate and REITs



## Exhibit E – Development of the Fund Through December 31, 2021

Year Ended Dec. 31	Employer Contributions	Member Contributions	Net Other Income*	Net Investment Return**	Admin. Expenses***	Benefit Payments****	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%

\* Proceeds from Pension Obligation Bonds

\*\* On a market basis, net of investment fees

\*\*\* 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.

\*\*\*\* Includes withdrawal of membership accounts

## Exhibit F – Definition of Pension Terms

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

<b>Actuarial Accrued Liability for Actives:</b>	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
<b>Actuarial Accrued Liability for Pensioners:</b>	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.
<b>Actuarial Cost Method:</b>	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.
<b>Actuarial Gain or Loss:</b>	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.
<b>Actuarially Equivalent:</b>	Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.
<b>Actuarial Present Value (APV):</b>	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.



<b>Actuarial Present Value of Future Plan Benefits:</b>	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.
<b>Actuarial Valuation:</b>	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).
<b>Actuarial Value of Assets (AVA):</b>	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.
<b>Actuarially Determined:</b>	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.
<b>Actuarially Determined Contribution (ADC):</b>	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.
<b>Amortization Method:</b>	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.
<b>Amortization Payment:</b>	The portion of the pension plan contribution, or ADC, that is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

<b>Assumptions or Actuarial Assumptions:</b>	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.
<b>Closed Amortization Period:</b>	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.
<b>Decrements:</b>	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
<b>Defined Benefit Plan:</b>	A retirement plan in which benefits are defined by a formula applied to the member's compensation and/or years of service.
<b>Defined Contribution Plan:</b>	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.
<b>Employer Normal Cost:</b>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<b>Experience Study:</b>	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.
<b>Funded Ratio:</b>	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, 2022	January 1, 2021
Total Pension Liability	\$2,301,217,070	\$2,305,250,624
Plan Fiduciary Net Position	<u>(1,970,367,505)</u>	<u>(1,792,916,838)</u>
Net Pension Liability	\$330,849,565	\$512,333,786
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	85.6%	77.8%

The Net Pension Liability was measured as of December 31, 2021, and is determined based on the Total Pension Liability from the January 1, 2022, 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, 2022.

*Actuarial assumptions.* The Total Pension Liability was determined by an actuarial valuation as of January 1, 2022, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50%
Salary increases	3.50% to 6.21%, varying by age, including inflation and productivity
Investment rate of return	7.50%, net of pension plan investment expenses
Cost-of-living adjustments	2.00%

## Mortality

Pre-retirement:	Males – RP-2006 Employee male, projected with generational projection using scale MP-2016. Females – RP-2006 Employee female, projected with generational projection using scale MP-2016.
Healthy Retiree:	Males – 102% of RP-2006 Healthy Annuitant male, projected with generational projection using scale MP-2016. Females – 107% of RP-2006 Healthy Annuitant female, projected with generational projection using scale MP-2016.
Disabled Retiree:	Males – 97% of RP-2006 Disabled male, projected with generational projection using scale MP-2016. Females – 95% of RP-2006 Disabled female, projected with generational projection using scale MP-2016.

The actuarial assumptions used were based on the results of an experience study dated October 12, 2017. They are the same as the assumptions used in the January 1, 2022 funding actuarial valuation.

The long-term expected rate of return on pension plan investments is 7.50%. 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 7.50% as of December 31, 2021. 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, 2022, 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, 2021. 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, 2021.

*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 7.50%, as well as what the Net Pension Liability would be if it were calculated using a discount rate that is one-percentage-point lower (6.50%) or one-percentage-point higher (8.50%) than the current rate:

	<b>1% Decrease (6.50%)</b>	<b>Current Discount Rate (7.50%)</b>	<b>1% Increase (8.50%)</b>
Net Pension Liability as of December 31, 2021	\$558,823,694	\$330,849,565	\$138,389,516

## Exhibit 2 – Schedules of Changes in Net Pension Liability

	Year Ending December 31, 2021	Year Ending December 31, 2020
<b>Total Pension Liability</b>		
Service cost	\$17,592,776	\$17,355,963
Interest	166,629,760	167,745,110
Change of benefit terms	0	0
Differences between expected and actual experience	13,970,444	1,993,825
Changes of assumptions	0	0
Benefit payments, including refunds of employee contributions	<u>(202,226,534)</u>	<u>(202,179,563)</u>
<b>Net change in Total Pension Liability</b>	<b>(\$4,033,554)</b>	<b>(\$15,084,665)</b>
<b>Total Pension Liability – beginning</b>	<b><u>2,305,250,624</u></b>	<b><u>2,320,335,289</u></b>
<b>Total Pension Liability – ending (a)</b>	<b><u>\$2,301,217,070</u></b>	<b><u>\$2,305,250,624</u></b>
<b>Plan Fiduciary Net Position</b>		
Contributions – employer	\$62,113,812	\$64,558,405
Contributions – employee	13,390,188	12,342,595
Net investment income	308,052,954	183,466,752
Benefit payments, including refunds of employee contributions	(202,226,534)	(202,179,563)
Administrative expense	(3,879,753)	(3,899,576)
Other	<u>0</u>	<u>0</u>
<b>Net change in Plan Fiduciary Net Position</b>	<b>177,450,667</b>	<b>54,288,613</b>
<b>Plan Fiduciary Net Position – beginning</b>	<b><u>1,792,916,838</u></b>	<b><u>1,738,628,225</u></b>
<b>Plan Fiduciary Net Position – ending (b)</b>	<b><u>\$1,970,367,505</u></b>	<b><u>\$1,792,916,838</u></b>
<b>Net Pension Liability – ending (a) – (b)</b>	<b><u>\$330,849,565</u></b>	<b><u>\$512,333,786</u></b>
<b>Plan Fiduciary Net Position as a percentage of the Total Pension Liability</b>	<b>85.6%</b>	<b>77.8%</b>
<b>Covered employee payroll</b>	<b>\$204,754,607</b>	<b>\$200,365,711</b>
<b>Net Pension Liability as percentage of covered employee payroll</b>	<b>161.6%</b>	<b>255.7%</b>

## 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, 2021, the changes in Net Pension Liability due to differences between expected and actual demographic experience is an increase of \$13,970,444. The average expected remaining service lives of all members is 2.4 years, determined as of January 1, 2021 (the beginning of the measurement period ending December 31, 2021). Therefore, of the \$13,970,444 demographic loss, \$5,821,018 is recognized in pension expense in the current year and \$8,149,426 is reflected as a deferred outflow of resources related to pensions.

Based on the assumed investment return of 7.50% for the year ending December 31, 2021, the expected net investment income for the year was \$129,748,576. As shown in *Exhibit 2*, the actual net investment income for the year was \$308,052,954. The difference between actual and expected investment experience is a decrease in Net Pension Liability of \$178,304,378, which is recognized over a 5-year period. Of this amount, \$35,660,874 is reflected in the current year and \$142,643,504 is reflected as a deferred inflow of resources related to pensions.

	Year Established	Original Balance	Original Amortization Period	Amortization Amount During 2021	Outstanding Balance at December 31, 2021
<b>Outflows</b>					
Investments	2018	\$167,716,897	5.0 years	\$33,543,379	\$33,543,379
Assumptions	2019	52,178,675	2.3 years	6,805,915	0
Demographics	2020	1,993,825	2.4 years	830,760	332,305
Demographics	2021	13,970,444	2.4 years	5,821,018	8,149,426
<b>Total outflows</b>				<b>\$47,001,072</b>	<b>\$42,025,110</b>
<b>Inflows</b>					
Investments	2017	\$125,341,015	5.0 years	\$25,068,203	\$0
Demographics	2019	16,270,627	2.3 years	2,122,255	0
Investment	2019	128,095,497	5.0 years	25,619,099	51,238,198
Investment	2020	57,734,418	5.0 years	11,546,882	34,640,652
Investment	2021	178,304,378	5.0 years	35,660,874	142,643,504
<b>Total inflows</b>				<b>\$100,017,315</b>	<b>\$228,522,354</b>

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

	December 31, 2021	December 31, 2020
<b>Deferred Outflows of Resources (Outstanding Balances)</b>		
Difference between expected and actual experience in the Total Pension Liability	\$8,481,731	\$1,163,065
Changes of assumptions	0	6,805,915
Net difference between projected and actual earnings on pension plan investments	N/A	N/A
<b>Total Deferred Outflows of Resources</b>	<b>\$8,481,731</b>	<b>\$7,968,980</b>
<b>Deferred Inflows of Resources (Outstanding Balances)</b>		
Difference between expected and actual experience in the Total Pension Liability	\$0	\$2,122,255
Changes of assumptions	0	0
Net difference between projected and actual earnings on pension plan investments	194,978,975	81,026,278
<b>Total Deferred Inflows of Resources</b>	<b>\$194,978,975</b>	<b>\$83,148,533</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Year Ended December 31:</b>		
2022	N/A	(\$23,176,387)
2023	(\$33,130,157)	(3,290,299)
2024	(70,498,451)	(37,165,983)
2025	(47,207,760)	(11,546,884)
2026	(35,660,876)	0
2027	0	0
Thereafter	0	0



## Exhibit 4 – Pension Expense

Exhibit 4 below shows the individual components of collective pension expense, which totaled -\$8,052,718 for the fiscal year that ended December 31, 2021.

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 -\$181,484,221 and employer contributions were \$62,113,812. The net value of deferred outflows and deferred inflows of resources as of the end of the current fiscal year is -\$186,497,244 compared to the net value as of the end of the prior fiscal of -\$75,179,553 for a change of -\$111,317,691. Therefore, the pension expense for the fiscal year that ended December 31, 2021, is -\$181,484,221 + \$62,113,812 + \$111,317,691 or -\$8,052,718.

	Fiscal Year Ending December 31, 2021	Fiscal Year Ending December 31, 2020
<b>Components of pension expense</b>		
• Service Cost	\$17,592,776	\$17,355,963
• Interest on the total pension liability	166,629,760	167,745,110
• Projected earnings on plan investments	(129,748,576)	(125,732,334)
• Contributions - member	(13,390,188)	(12,342,595)
• Administrative expense	3,879,753	3,899,576
• Current year recognition of:		
Changes of assumptions	6,805,915	22,686,380
Difference between expected and actual experience	4,529,523	(6,311,743)
Difference between projected and actual earnings on pension plan investments	(64,351,681)	(24,738,487)
Change of benefit terms	0	0
<b>Total pension expense</b>	<b>(\$8,052,718)</b>	<b>\$42,561,870</b>

# Section 5: Actuarial Valuation Basis

## Exhibit I – Actuarial Assumptions and Actuarial Cost Method

<b>Rationale for Assumptions</b>	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, 2016 prepared by Conduent. Assumptions that were 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.
<b>Net Investment Return:</b>	7.50%. 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 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 net investment return reduction phase-in to 7.50% was completed as of January 1, 2020.

<b>Salary Increases:</b>		<b>Age</b>	<b>General Employees</b>	<b>Elected Officials</b>	<b>Deputy Sheriffs</b>
		20	10.5%	3.5%	11.5%
		25	6.0	3.5	10.0
		30	5.0	3.5	7.1
		35	4.2	3.5	5.6
		40	4.0	3.5	3.2
		45	3.0	3.5	3.0
		50	3.0	3.5	3.0
		55	3.0	3.0	3.0
		60	3.0	3.0	3.0
	Salary increases include an assumed inflation rate of 2.50%				
<b>Payroll Growth:</b>	3.50%. For purposes of amortizing the unfunded actuarial accrued liability on a level percentage basis, the System uses 1.75%. This rate reflects the anticipated growth rate of the County's revenues.				
<b>Cost-of-Living Adjustments:</b>	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.				
<b>Mortality Rates:</b>	<p><i>Healthy Annuitants and Beneficiaries:</i> For males, 102% of RP-2006 Healthy Annuitant male, projected with generational projection using scale MP-2016. For females, 107% of RP-2006 Healthy Annuitant female, projected with generational projection using scale MP-2016.</p> <p><i>Disabled Annuitants:</i> For males, 97% of RP-2006 Disabled male, projected with generational projection using scale MP-2016. For females, 95% of RP-2006 Disabled female, projected with generational projection using scale MP-2016.</p> <p><i>Death in Active Service:</i> For males, RP-2006 Employee male, projected with generational projection using scale MP-2016. For females, RP-2006 Employee female, projected with generational projection using scale MP-2016.</p> <p>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.</p>				

**Termination Rates before Retirement:**

Age	Rate (%)			
	Withdrawal – Ultimate			Disability
	General Employees	Elected Officials	Deputy Sheriffs	
20	25.0	4.0	18.6	0.00
25	25.0	4.0	18.6	0.04
30	10.1	4.0	8.6	0.05
35	7.2	4.0	5.7	0.07
40	6.0	4.0	3.0	0.17
45	5.7	4.0	3.0	0.21
50	5.7	4.0	2.0	0.21
55	3.0	4.0	1.0	0.21
60	0.0	0.0	0.0	0.21
65	0.0	0.0	0.0	0.21

**Termination Rates before Retirement, continued:**

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

Age	Select Period Termination Rates (%)					
	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	12.5	0.0
25	31.2	23.4	20.4	15.0	11.9	0.0
30	27.1	22.4	16.8	13.2	9.1	0.0
35	24.7	21.4	14.8	11.4	7.2	0.0
40	22.3	19.2	14.0	10.4	6.7	0.0
45	21.5	16.8	14.0	10.0	5.9	0.0
50	21.5	14.8	14.0	10.0	7.6	0.0
55	21.5	14.0	14.0	10.0	9.0	0.0
60	0.0	0.0	0.0	0.0	0.0	0.0

The withdrawal rates were 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
45-49	10.0	0.0	0.0	15.0
50	15.0	10.0	0.0	15.0
51-54	15.0	10.0	0.0	30.0
55	15.0	10.0	14.9	30.0
56	15.0	10.0	14.9	30.0
57	15.0	10.0	17.3	30.0
58	15.0	10.0	15.3	30.0
59	15.0	10.0	18.6	30.0
60	15.0	10.0	14.6	50.0
61	25.0	10.0	16.9	50.0
62	25.0	25.0	21.3	50.0
63	25.0	25.0	20.0	50.0
64	25.0	25.0	18.2	50.0
65	40.0	33.3	22.8	100.0
66	40.0	33.3	16.9	100.0
67	40.0	33.3	19.3	100.0
68	40.0	33.3	25.7	100.0
69	40.0	33.3	27.0	100.0
70	100.0	100.0	100.0	100.0

The retirement rates were 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:**

100% of inactive vested participants are assumed to retire at the participants' Normal Retirement Age. The retirement rates for inactive vested participants are based on historical and current demographic data, adjusted to reflect estimated future experience and professional judgment.

<b>Backdrop Utilization:</b>	75% of retirees are assumed to elect the Backdrop. Of the employees electing the Backdrop, 75% are assumed to take the maximum possible Backdrop, based on eligibility for an unreduced benefit. 25% 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.
<b>Unknown Data for Participants:</b>	Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.
<b>Salary Adjustments</b>	The County pays active members biweekly. 2021 had 26 biweekly payments, so salaries were not adjusted.
<b>Percent Married:</b>	80%, with beneficiaries the same age as the participant.
<b>Percent Married with at Least One Dependent Child:</b>	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.
<b>Disability Type:</b>	For represented employees, disabilities are assumed to be 50% Ordinary and 50% Accidental. For non-represented employees, disabilities are assumed to be Ordinary (100%).
<b>Benefit Election:</b>	All participants are assumed to elect the Straight Life Annuity form of payment.
<b>Death Benefits:</b>	All death benefits are assumed to be ordinary.
<b>Actuarial Value of Assets:</b>	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. The Actuarial Value of Assets was set equal to the Market Value of Assets at January 1, 2013.
<b>Actuarial Cost Method:</b>	<p>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.</p> <p>The outstanding balance of the Unfunded Actuarial Accrued Liability as of January 1, 2015 is being amortized over a fixed 21 year period. Changes to the Unfunded Actuarial Accrued Liability arising from plan changes, assumption changes, and experience gains and losses are amortized as a level percentage of payroll over a 20-year period. For this purpose, the payroll growth assumption is limited to 1.75%.</p> <p>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.</p>

## 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.

<b>Plan Year:</b>	January 1 through December 31
<b>Plan Status:</b>	Ongoing
<b>Membership:</b>	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.
<b>Vesting Service:</b>	<p>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:</p> <ul style="list-style-type: none"> <li>• Less than 5 years of service with the County: no military service granted.</li> <li>• Between 5 and 10 years of service with the County: up to 1 year of military service granted.</li> <li>• Between 10 and 15 years of service with the County: up to 2 years of military service granted.</li> <li>• Between 15 and 20 years of service with the County: up to 3 years of military service granted.</li> <li>• 20 or more years of service with the County: up to 4 years of military service granted.</li> </ul>
<b>Benefit Service:</b>	Same as vesting service except that service prior to becoming a participant does not count.
<b>Compensation:</b>	<p>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.</p> <p>Compensation shall not exceed \$305,000 in 2022, as indexed for the cost of living.</p>



<b>Final Average Salary (FAS):</b>	<p>Final average salary means the average annual salary for the highest three consecutive years of service.</p> <p>Exceptions:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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%.</li> </ul>
<b>Voluntary Employee Contribution:</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
<b>Mandatory Employee Contribution:</b>	<ul style="list-style-type: none"> <li>• Public Safety and General employees contribute 50% of the allocated cost of the actuarially determined contribution.</li> </ul>
<b>Rule of 75:</b>	<ul style="list-style-type: none"> <li>• For eligible employees, unreduced retirement if age plus credited service exceeds 75.</li> </ul>
<b>Normal Retirement Eligibility:</b>	<ul style="list-style-type: none"> <li>• Elected Officials <ul style="list-style-type: none"> <li>○ Age 60, or age 55 with 30 years of service</li> <li>○ If hired before January 1, 2006, Rule of 75 is available</li> </ul> </li> <li>• Firefighters, Federated Nurses, and Machinists <ul style="list-style-type: none"> <li>○ Age 60 with 5 years of service, or age 55 with 30 years of service</li> <li>○ Rule of 75 for Firefighters hired before December 1, 1996, Nurses hired before January 1, 1997, and Machinists hired before January 1, 1994</li> <li>○ For Federated Nurses and Machinists hired after January 1, 2012, age 64 or age 55 with 30 years of service</li> </ul> </li> <li>• Attorneys, Building Trades, non-represented employees, DC48, and TEAMCO <ul style="list-style-type: none"> <li>○ Age 60, or age 55 with 30 years of service</li> <li>○ Age 64 or age 55 with 30 years of service (for all hired after January 1, 2010 except DC48)</li> <li>○ Age 64 or age 55 with 30 years of service (for DC48 hired after August 1, 2011)</li> <li>○ Age 64 (non-represented employees)</li> <li>○ Rule of 75 for Attorneys, Building Trades, and non-represented employees hired before January 1, 2006</li> <li>○ Rule of 75 for TEAMCO hired before January 1, 1994</li> <li>○ Rule of 75 for all DC48</li> </ul> </li> </ul>

<b>Normal Retirement Eligibility, continued:</b>	<ul style="list-style-type: none"> <li>• Deputy Sheriffs <ul style="list-style-type: none"> <li>○ Age 57, or age 55 with 15 years of service</li> <li>○ Rule of 75 for, non-represented Deputy Sheriffs, DA investigators, and Deputy Sheriffs hired before January 1, 1994.</li> </ul> </li> </ul>
<b>Normal Retirement Amount:</b>	<ul style="list-style-type: none"> <li>• Elected Officials <ul style="list-style-type: none"> <li>○ 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%.</li> <li>○ 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%</li> </ul> </li> <li>• General Employees <ul style="list-style-type: none"> <li>○ 2.0% of FAS per year of service, not greater than 80%</li> <li>○ The rate is reduced to 1.6% of FAS per years of service as follows: <ul style="list-style-type: none"> <li>▪ For non-represented employees, effective January 1, 2010</li> <li>▪ For Attorneys and TEAMCO, effective May 1, 2010</li> <li>▪ For Machinists, effective June 1, 2010</li> <li>▪ For DC48, effective August 1, 2011</li> <li>▪ For Building Trades and Federated Nurses, effective January 1, 2012</li> </ul> </li> </ul> </li> <li>• Deputy Sheriffs <ul style="list-style-type: none"> <li>○ 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%</li> <li>○ For Deputy Sheriffs hired on or after July 1, 1995, 2.0% of FAS per years of service, not greater than 80%</li> </ul> </li> <li>• For all members, 1.6% of FAS per year of service after 80% of FAS has been reached</li> </ul>
<b>Early Retirement:</b>	<ul style="list-style-type: none"> <li>• Age Requirement: 55</li> <li>• Service Requirement: 15 years</li> <li>• Amount: Benefits reduced by 5/12 of 1% for each month by which payment of benefits precedes Normal Retirement Age</li> <li>• Early Retirement is 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)</li> </ul>
<b>Ordinary Disability:</b>	<ul style="list-style-type: none"> <li>• Service Requirement: 15 years</li> <li>• Amount: benefits calculated as for normal retirement. Minimum benefit is 25% of FAS.</li> </ul>

<b>Accidental Disability</b>	<ul style="list-style-type: none"> <li>• All employees are eligible</li> <li>• If the employee has attained normal retirement age, normal retirement benefits apply</li> <li>• 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</li> <li>• Employees whose benefit is not less than 75% of FAS <ul style="list-style-type: none"> <li>○ Elected Officials and non-represented employees hired before February 19, 1987</li> <li>○ Attorneys hired on or after January 1, 1987</li> <li>○ Building Trades hired before October 30, 1987</li> <li>○ Federated Nurses hired before January 1, 1987</li> <li>○ Machinists hired before May 18, 1988</li> <li>○ DC48 hired before July 24, 1987</li> <li>○ TEAMCO hired before January 12, 1988</li> <li>○ Deputy Sheriffs</li> <li>○ DA investigators and non-represented Deputy Sheriffs hired before February 19, 1987</li> </ul> </li> <li>• Benefits received prior to age 62 are recalculated after age 62 to include service from the date of disability to age 62</li> </ul>
<b>Ordinary Death Benefit:</b>	<ul style="list-style-type: none"> <li>• Only applicable to Deputy Sheriffs not eligible for normal retirement</li> <li>• Only applicable if the cause of death was not an accident in active duty</li> <li>• Employee has completed 1 year of service</li> <li>• Surviving spouse or child shall be entitled to survivor benefits (see section on survivor benefits)</li> </ul>
<b>Accidental Death Benefit:</b>	<ul style="list-style-type: none"> <li>• Only applicable to Deputy Sheriffs when death occurs due to an accident in active duty</li> <li>• Benefit of 50% of FAS shall be paid <ul style="list-style-type: none"> <li>○ To surviving spouse for life or until remarriage</li> <li>○ If surviving spouse benefit is not payable, to children under age 18</li> <li>○ If surviving spouse and child benefits are not payable, to dependent parent for life</li> <li>○ Benefit shall not be less than ordinary death benefit amount</li> </ul> </li> </ul>
<b>Lump Sum Death Benefit:</b>	<ul style="list-style-type: none"> <li>• If no other death benefit is payable, a lump sum of one half of FAS, not greater than \$2,000.</li> <li>• Member must have 1 year of service</li> </ul>

<b>Survivor Benefits:</b>	<ul style="list-style-type: none"> <li>• Member dies prior to age 60 after completing 1 year of service</li> <li>• Surviving spouse has at least one child and was married to the member at least 1 year prior to death</li> <li>• Monthly benefit of 40% of final salary prior to age 60</li> <li>• Reduced by monthly survivor benefits paid by Social Security</li> <li>• At age 60, 50% of benefit based on actual FAS and service projected to age 60</li> <li>• 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.</li> </ul>
<b>Refund of Contributions:</b>	<ul style="list-style-type: none"> <li>• Available at termination of employment</li> </ul>
<b>Vesting:</b>	<ul style="list-style-type: none"> <li>• Service Requirement: 5 years of service</li> <li>• Accrued benefit is at least \$10 per month</li> <li>• Amount: as per Normal Retirement Benefit</li> <li>• If member withdraws employee contributions, vested benefit does not apply</li> </ul>
<b>Optional Forms of Benefits:</b>	<ul style="list-style-type: none"> <li>• Options that pay a reduced benefit on an actuarially equivalent basis <ul style="list-style-type: none"> <li>○ Option 1 – If member dies before benefits paid exceed the member’s accumulated contributions at retirement, the balance is paid as a lump sum.</li> <li>○ Option 2 – 50% Joint and Survivor Annuity.</li> <li>○ Option 3 – 100% Joint and Survivor Annuity.</li> </ul> </li> </ul>
<b>Cost of Living Adjustment (COLA):</b>	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
- 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, 2022

## Active Participants

	General Employees	Deputy Sheriffs	Elected Officials	Total
Number of Participants	3,054	265	6	3,325
Average Annual Salaries*	\$59,850	\$70,228	\$120,110	\$60,786
Average Age	45.2	39.4	58.2	44.7
Average Benefit Service	9.4	12.1	12.2	9.6

\* 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	1,305	\$11,009,006	\$8,436	51.8
Retired Participants	6,667	159,780,874	23,964	72.7
Beneficiaries	913	17,540,462	19,212	77.8
Disability Retirees	249	6,793,198	27,282	65.5
<b>Total</b>	<b>9,134</b>	<b>\$195,123,540</b>	<b>\$21,362</b>	<b>70.0</b>

TABLE 2 – MEMBERSHIP STATISTICS (UNAUDITED)

## Active Participants

<b>Members as of January 1, 2021</b>	<b>3,529</b>
Changes during the year:	
New enrollments	418
Vested terminations	(91)
Nonvested terminations	(158)
Retirements	(124)
Deaths in active service	(6)
Withdrawals	(243)
Data Adjustment	0
<b>Members as of December 31, 2021</b>	<b>3,325</b>

## Retirements and Survivors

	Maximum Pension	Refund	100%	75%	50%	25%	5%	10-Yr	Survivors and Beneficiaries	Total
<b>January 1, 2021</b>	<b>3,239</b>	<b>185</b>	<b>1,452</b>	<b>311</b>	<b>906</b>	<b>539</b>	<b>41</b>	<b>302</b>	<b>911</b>	<b>7,886</b>
Changes during the year:										
Adjustments / Show-ups	7	-	1	1	2	-	-	1	27	39
Retirements	91	-	44	7	19	12	-	19	53	245
Benefits Expired	-	(1)	-	-	-	-	-	-	(11)	(12)
Pensioner Deaths	(130)	(19)	(41)	(10)	(48)	(10)	-	(4)	(67)	(329)
<b>December 31, 2021</b>	<b>3,207</b>	<b>165</b>	<b>1,456</b>	<b>309</b>	<b>879</b>	<b>541</b>	<b>41</b>	<b>318</b>	<b>913</b>	<b>7,829</b>

**TABLE 3A – PARTICIPANTS IN ACTIVE SERVICE AS OF DECEMBER 31, 2021 BY AGE, YEARS OF CREDITABLE SERVICE, AND AVERAGE PAYROLL**

**All Employee Groups**

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

Age	Years of Creditable Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	116	116	--	--	--	--	--	--	--	--
	\$46,691	\$46,691	--	--	--	--	--	--	--	--
25 - 29	294	265	29	--	--	--	--	--	--	--
	\$50,202	\$49,639	\$55,344	--	--	--	--	--	--	--
30 - 34	407	293	104	10	--	--	--	--	--	--
	\$54,245	\$53,636	\$54,996	--	--	--	--	--	--	--
35 - 39	402	206	131	56	9	--	--	--	--	--
	\$58,503	\$53,728	\$64,268	\$63,757	--	--	--	--	--	--
40 - 44	420	157	112	68	53	29	1	--	--	--
	\$63,004	\$55,307	\$66,804	\$70,248	\$66,457	\$66,967	--	--	--	--
45 - 49	467	143	92	48	59	105	20	--	--	--
	\$65,242	\$57,254	\$64,946	\$75,873	\$67,892	\$67,621	\$77,899	--	--	--
50 - 54	494	125	80	39	47	125	64	12	1	1
	\$66,370	\$59,800	\$65,192	\$68,670	\$71,588	\$67,154	\$74,369	--	--	--
55 - 59	366	83	61	36	34	67	40	37	7	1
	\$64,082	\$58,786	\$68,562	\$68,751	\$64,749	\$59,857	\$63,429	\$70,445	--	--
60 - 64	253	63	34	33	30	47	22	19	4	1
	\$64,293	\$62,455	\$61,208	\$59,480	\$62,641	\$59,509	\$76,884	--	--	--
65 & over	106	15	26	15	13	14	9	8	3	3
	\$65,136	--	\$58,083	--	--	--	--	--	--	--
Total	3,325	1,466	669	305	245	387	156	76	15	6
	\$60,786	\$54,142	\$63,064	\$67,792	\$66,492	\$64,740	\$72,283	\$71,672	--	--



**TABLE 3B – PARTICIPANTS IN ACTIVE SERVICE AS OF DECEMBER 31, 2021 BY AGE, YEARS OF CREDITABLE SERVICE, AND AVERAGE PAYROLL**

**General Employees**

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

Age	Years of Creditable Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	98	98	--	--	--	--	--	--	--	--
	\$43,756	\$43,756	--	--	--	--	--	--	--	--
25 - 29	241	218	23	--	--	--	--	--	--	--
	\$47,568	\$47,079	\$52,207	--	--	--	--	--	--	--
30 - 34	365	269	88	9	--	--	--	--	--	--
	\$53,006	\$52,807	\$52,467	--	--	--	--	--	--	--
35 - 39	377	197	122	50	8	--	--	--	--	--
	\$57,733	\$52,919	\$63,921	\$62,842	--	--	--	--	--	--
40 - 44	395	150	105	66	51	22	1	--	--	--
	\$62,664	\$55,149	\$66,774	\$70,298	\$66,329	\$63,214	--	--	--	--
45 - 49	428	141	91	48	55	81	12	--	--	--
	\$63,986	\$57,212	\$64,907	\$75,873	\$66,647	\$64,117	--	--	--	--
50 - 54	437	125	78	39	44	100	37	12	1	1
	\$64,732	\$59,800	\$65,173	\$68,670	\$71,477	\$64,203	\$69,899	--	--	--
55 - 59	358	82	61	36	33	64	39	35	7	1
	\$63,694	\$58,356	\$68,562	\$68,751	\$64,330	\$58,981	\$63,041	\$69,756	--	--
60 - 64	249	62	33	33	30	46	21	19	4	1
	\$63,569	\$61,265	\$60,212	\$59,480	\$62,641	\$59,096	\$74,415	--	--	--
65 & over	105	15	26	15	13	14	8	8	3	3
	\$64,481	--	\$58,083	--	--	--	--	--	--	--
Total	3,054	1,357	627	296	234	327	118	74	15	6
	\$59,850	\$53,382	\$62,675	\$67,723	\$66,033	\$62,105	\$68,774	\$71,380	--	--

**TABLE 3C – PARTICIPANTS IN ACTIVE SERVICE AS OF DECEMBER 31, 2021 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	18	18	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
25 - 29	53	47	6	--	--	--	--	--	--	--
	\$62,177	\$61,514	--	--	--	--	--	--	--	--
30 - 34	41	24	16	1	--	--	--	--	--	--
	\$64,425	\$61,415	--	--	--	--	--	--	--	--
35 - 39	24	8	9	6	1	--	--	--	--	--
	\$67,470	--	--	--	--	--	--	--	--	--
40 - 44	25	7	7	2	2	7	--	--	--	--
	\$68,381	--	--	--	--	--	--	--	--	--
45 - 49	39	2	1	--	4	24	8	--	--	--
	\$79,022	--	--	--	--	\$79,445	--	--	--	--
50 - 54	57	--	2	--	3	25	27	--	--	--
	\$78,927	--	--	--	--	\$78,958	\$80,494	--	--	--
55 - 59	7	--	--	--	1	3	1	2	--	--
	--	--	--	--	--	--	--	--	--	--
60 - 64	1	--	--	--	--	1	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
65 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	265	106	41	9	11	60	36	2	--	--
	\$70,228	\$61,637	\$68,258	--	--	\$79,102	\$80,502	--	--	--

TABLE 3D – PARTICIPANTS IN ACTIVE SERVICE AS OF DECEMBER 31, 2021 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	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
55 - 59	1	1	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
60 - 64	3	1	1	--	--	--	1	--	--	--
	--	--	--	--	--	--	--	--	--	--
65 & over	1	--	--	--	--	--	1	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	6	3	1	--	--	--	2	--	--	--
	--	--	--	--	--	--	--	--	--	--

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

**Actives Reaching Retirement Eligibility**

<b>Year</b>	<b>General Employees</b>	<b>Elected Officials</b>	<b>Deputy Sheriffs</b>	<b>Total</b>
Eligible at Valuation Date	567	4	9	580
2022	73	-	8	81
2023	69	1	7	77
2024	89	-	13	102
2025	90	-	10	100
2026	79	-	16	95
Total Over Next 5 Years	400	1	54	455
Grand Total Eligible	967	5	63	1,035

**Deferred Vested Members Reaching Retirement Age**

<b>Year</b>	<b>Total</b>
2022	56
2023	65
2024	52
2025	47
2026	56
Total Over Next 5 Years	276

TABLE 5 – RETIREE AND BENEFICIARY MEMBERSHIP DATA AS OF JANUARY 1, 2022

## Number and Average Annual Benefits

Age Last Birthday	Number	Annual Benefit	Average Annual Benefit
<b>Retired Participants</b>			
Under 60	366	\$11,706,931	\$31,986
60 – 64	881	20,464,658	23,229
65 – 69	1,419	32,606,921	22,979
70 – 74	1,709	41,339,216	24,189
75 – 79	1,019	25,610,099	25,133
80 & over	1,273	28,053,050	22,037
<b>Total</b>	<b>6,667</b>	<b>\$159,780,874</b>	<b>\$23,966</b>
<b>Beneficiaries</b>			
Under 60	42	\$776,205	\$18,481
60 – 64	44	687,386	15,622
65 – 69	103	2,135,363	20,732
70 – 74	151	3,124,040	20,689
75 – 79	145	3,105,514	21,417
80 & over	428	7,711,955	18,019
<b>Total</b>	<b>913</b>	<b>\$17,540,462</b>	<b>\$19,212</b>
<b>Disabled Participants</b>			
Under 60	94	\$3,200,487	\$34,048
60 – 64	38	942,206	24,795
65 – 69	35	938,724	26,821
70 – 74	29	679,901	23,445
75 – 79	23	393,081	17,090
80 & over	30	638,799	21,293
<b>Total</b>	<b>249</b>	<b>\$6,793,198</b>	<b>\$27,282</b>
<b>Grand Total</b>	<b>7,829</b>	<b>\$184,114,533</b>	<b>\$23,517</b>

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
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%
2019	3,425	-2.20%	191,043,797	0.92%
2018	3,502	0.40%	189,298,469	1.66%

### 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
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%
2019	8,042	307	302	0.06%	180,165,695	1.71%
2018	8,037	333	294	-0.32%	177,140,993	1.24%

**TABLE 7A – DETAILED TABULATIONS OF THE DATA**

**The Number and Annual Salaries of Members in Active Service Distributed by Age as of January 1, 2022**

**All Employees**

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

Age	Men		Women		Total	
	Number	Compensation	Number	Compensation	Number	Compensation
18	--	--	--	--	--	--
19	2	--	--	--	2	--
20	2	--	4	--	6	--
21	9	--	5	--	14	--
22	17	--	9	--	26	\$1,135,486
23	19	--	16	--	35	1,674,644
24	18	--	15	--	33	1,710,822
25	31	\$1,556,813	13	--	44	2,168,935
26	31	1,651,427	19	--	50	2,542,400
27	37	1,865,619	27	\$1,346,779	64	3,212,398
28	31	1,630,951	37	1,768,496	68	3,399,447
29	35	1,891,314	33	1,544,891	68	3,436,205
30	40	2,297,927	45	2,382,144	85	4,680,071
31	33	1,847,391	33	1,714,342	66	3,561,733
32	53	3,273,490	40	1,849,167	93	5,122,657
33	33	1,965,979	40	2,011,975	73	3,977,954
34	34	1,983,766	56	2,751,453	90	4,735,219
35	40	2,545,029	60	3,193,663	100	5,738,692
36	41	2,480,979	53	2,768,363	94	5,249,341
37	24	1,442,001	46	2,908,746	70	4,350,747
38	36	2,332,867	46	2,565,356	82	4,898,222
39	21	1,464,845	35	1,816,306	56	3,281,151

**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, 2022**

**All Employees**

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

Age	Men		Women		Total	
	Number	Compensation	Number	Compensation	Number	Compensation
40	26	\$1,694,136	42	\$2,370,086	68	\$4,064,221
41	43	2,967,958	40	2,152,873	83	5,120,830
42	36	2,373,478	53	3,531,855	89	5,905,333
43	47	3,152,454	56	3,382,914	103	6,535,368
44	38	2,385,783	39	2,450,210	77	4,835,993
45	51	3,623,830	42	2,442,669	93	6,066,499
46	51	3,766,563	48	2,942,355	99	6,708,918
47	34	2,543,198	50	2,740,542	84	5,283,739
48	35	2,405,674	39	2,442,741	74	4,848,414
49	58	3,837,192	59	3,723,223	117	7,560,415
50	60	4,185,668	55	3,655,904	115	7,841,573
51	60	4,240,130	49	3,291,662	109	7,531,791
52	40	2,628,325	55	3,613,072	95	6,241,397
53	36	2,614,274	47	2,847,092	83	5,461,366
54	38	2,783,759	54	2,926,785	92	5,710,543
55	38	2,728,165	58	3,657,369	96	6,385,534
56	48	3,301,041	46	2,630,878	94	5,931,920
57	28	1,993,240	32	1,766,751	60	3,759,991
58	35	2,398,103	29	1,767,530	64	4,165,633
59	23	1,531,904	29	1,679,101	52	3,211,005
60	36	2,510,196	36	2,030,040	72	4,540,236



**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, 2022**

**All Employees**

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

Age	Number	Men		Women		Total	
		Compensation	Number	Compensation	Number	Compensation	Number
61	27	\$1,797,773	32	\$2,124,645	59	\$3,922,418	
62	22	1,279,112	27	1,710,018	49	2,989,129	
63	24	1,668,091	25	1,536,816	49	3,204,907	
64	11	--	14	--	25	1,648,512	
65	13	--	19	--	32	2,012,089	
66	17	--	9	--	26	1,719,633	
67	5	--	11	--	16	--	
68	5	--	6	--	11	--	
69	2	--	1	--	3	--	
70	6	--	2	--	8	--	
71	4	--	1	--	5	--	
72	--	--	1	--	1	--	
73	1	--	--	--	1	--	
74	--	--	--	--	--	--	
75	--	--	--	--	--	--	
76	1	--	--	--	1	--	
77	--	--	--	--	--	--	
78	--	--	--	--	--	--	
79	1	--	--	--	1	--	
<b>Total</b>	<b>1,587</b>	<b>\$102,865,865</b>	<b>1,738</b>	<b>\$99,246,521</b>	<b>3,325</b>	<b>\$202,112,385</b>	

## 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, 2022**

### All Employees

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

Service	Men		Women		Total	
	Number	Compensation	Number	Compensation	Number	Compensation
0	102	\$4,908,493	115	\$4,763,068	217	\$9,671,560
1	142	7,956,985	143	7,128,778	285	15,085,763
2	118	6,377,064	171	8,492,316	289	14,869,380
3	133	7,633,676	154	8,390,065	287	16,023,741
4	101	6,609,809	118	6,910,625	219	13,520,434
5	80	4,977,215	111	5,789,359	191	10,766,573
6	78	4,941,065	111	6,453,921	189	11,394,986
7	53	3,769,278	82	4,833,039	135	8,602,317
8	48	3,761,262	59	3,372,521	107	7,133,784
9	53	3,551,482	47	2,594,199	100	6,145,681
10	57	3,885,286	39	2,640,922	96	6,526,207
11	41	2,888,958	29	1,922,887	70	4,811,845
12	26	1,642,009	20	1,281,641	46	2,923,650
13	36	2,525,569	41	2,753,008	77	5,278,577
14	37	2,501,145	29	1,747,779	66	4,248,924
15	17	--	23	1,914,639	40	3,239,158
16	30	1,844,191	43	2,525,938	73	4,370,129
17	27	1,855,288	29	1,874,851	56	3,730,140
18	16	--	22	1,262,988	38	2,415,925
19	29	2,159,549	14	--	43	2,972,310
20	34	2,468,619	26	1,521,159	60	3,989,778
21	46	3,034,882	48	2,631,232	94	5,666,114
22	41	2,654,387	41	2,367,323	82	5,021,710
23	47	3,473,203	41	2,653,927	88	6,127,130

**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, 2022**

**All Employees**

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

Service	Number	Men		Women		Total	
		Compensation	Number	Compensation	Number	Compensation	Number
24	37	\$2,587,490	25	\$1,623,350	62	\$4,210,840	
25	35	2,653,437	20	1,422,181	55	4,075,618	
26	19	--	20	1,342,251	39	2,795,654	
27	28	2,162,422	12	--	40	3,084,059	
28	21	1,528,684	21	1,424,393	42	2,953,076	
29	4	--	14	--	18	--	
30	12	--	13	--	25	1,860,892	
31	7	--	10	--	17	--	
32	7	--	13	--	20	1,540,948	
33	7	--	9	--	16	--	
34	6	--	8	--	14	--	
35	4	--	4	--	8	--	
36	2	--	3	--	5	--	
37	3	--	3	--	6	--	
38	1	--	2	--	3	--	
39	--	--	--	--	--	--	
40	--	--	1	--	1	--	
41	1	--	1	--	2	--	
42	1	--	2	--	3	--	
43	--	--	--	--	--	--	
44	--	--	--	--	--	--	
<b>Total</b>	<b>1,587</b>	<b>\$102,865,865</b>	<b>1,738</b>	<b>\$99,246,521</b>	<b>3,325</b>	<b>\$202,112,385</b>	

**TABLE 7C – DETAILED TABULATIONS OF THE DATA**

**The Number and Annual Salaries of Members in Active Service Distributed by Age as of January 1, 2022**

**General Employees**

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

Age	Men		Women		Total	
	Number	Compensation	Number	Compensation	Number	Compensation
18	--	--	--	--	--	--
19	2	--	--	--	2	--
20	2	--	4	--	6	--
21	9	--	5	--	14	--
22	15	--	8	--	23	\$945,605
23	12	--	15	--	27	1,175,610
24	13	--	13	--	26	1,271,753
25	22	\$1,044,170	13	--	35	1,656,292
26	19	--	19	--	38	1,785,696
27	27	1,241,425	25	\$1,223,292	52	2,464,717
28	25	1,237,618	36	1,695,036	61	2,932,653
29	22	1,079,758	33	1,544,891	55	2,624,649
30	30	1,661,000	45	2,382,144	75	4,043,144
31	26	1,395,622	32	1,651,174	58	3,046,796
32	40	2,425,954	39	1,786,354	79	4,212,308
33	28	1,640,686	40	2,011,975	68	3,652,661
34	30	1,729,839	56	2,751,453	86	4,481,291
35	33	2,004,143	58	3,054,670	91	5,058,813
36	37	2,216,578	52	2,706,339	89	4,922,917
37	22	1,294,122	45	2,847,163	67	4,141,285
38	34	2,203,610	45	2,504,403	79	4,708,013
39	17	--	34	1,729,439	51	2,934,216

**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, 2022**

**General Employees**

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

Age	Men		Women		Total	
	Number	Compensation	Number	Compensation	Number	Compensation
40	20	\$1,298,154	39	\$2,162,664	59	\$3,460,818
41	40	2,743,446	40	2,152,873	80	4,896,319
42	32	2,106,332	53	3,531,855	85	5,638,187
43	41	2,764,903	55	3,304,370	96	6,069,272
44	36	2,237,415	39	2,450,210	75	4,687,625
45	43	2,998,926	41	2,364,136	84	5,363,062
46	46	3,372,202	46	2,785,246	92	6,157,448
47	33	2,463,962	49	2,654,245	82	5,118,207
48	30	2,005,294	38	2,364,152	68	4,369,446
49	46	2,894,510	56	3,483,451	102	6,377,961
50	46	3,046,980	52	3,430,924	98	6,477,904
51	50	3,477,244	48	3,213,169	98	6,690,413
52	27	1,594,051	54	3,526,672	81	5,120,723
53	31	2,213,066	45	2,689,396	76	4,902,461
54	31	2,232,853	53	2,863,505	84	5,096,358
55	36	2,563,155	57	3,578,814	93	6,141,969
56	46	3,143,932	44	2,473,793	90	5,617,726
57	28	1,993,240	32	1,766,751	60	3,759,991
58	34	2,304,071	29	1,767,530	63	4,071,601
59	23	1,531,904	29	1,679,101	52	3,211,005
60	36	2,510,196	36	2,030,040	72	4,540,236
61	25	1,625,180	32	2,124,645	57	3,749,825

**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, 2022**

**General Employees**

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

Age	Men		Women		Total	
	Number	Compensation	Number	Compensation	Number	Compensation
62	22	\$1,279,112	27	\$1,710,018	49	\$2,989,129
63	23	1,531,832	25	1,536,816	48	3,068,648
64	10	--	14	--	24	1,519,762
65	12	--	19	--	31	1,878,189
66	17	--	9	--	26	1,719,633
67	5	--	11	--	16	--
68	5	--	6	--	11	--
69	2	--	1	--	3	--
70	6	--	2	--	8	--
71	4	--	1	--	5	--
72	--	--	1	--	1	--
73	1	--	--	--	1	--
74	--	--	--	--	--	--
75	--	--	--	--	--	--
76	1	--	--	--	1	--
77	--	--	--	--	--	--
78	--	--	--	--	--	--
79	1	--	--	--	1	--
<b>Total</b>	<b>1,354</b>	<b>\$86,294,038</b>	<b>1,700</b>	<b>\$96,487,151</b>	<b>3,054</b>	<b>\$182,781,189</b>

## 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, 2022

#### General Employees

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

Service	Number	Men		Women		Total	
		Compensation	Number	Compensation	Number	Compensation	Number
0	87	\$3,991,523	114	\$4,699,698	201	\$8,691,221	
1	125	6,919,975	141	7,003,838	266	13,923,813	
2	91	4,720,997	167	8,246,307	258	12,967,304	
3	121	6,788,651	154	8,390,065	275	15,178,716	
4	82	5,447,493	115	6,718,603	197	12,166,096	
5	68	4,195,582	109	5,660,268	177	9,855,850	
6	65	4,064,890	107	6,173,039	172	10,237,929	
7	50	3,565,902	81	4,765,126	131	8,331,028	
8	43	3,411,177	59	3,372,521	102	6,783,698	
9	48	3,140,235	46	2,523,345	94	5,663,580	
10	54	3,681,186	39	2,640,922	93	6,322,108	
11	41	2,888,958	28	1,836,019	69	4,724,978	
12	22	1,365,483	20	1,281,641	42	2,647,123	
13	34	2,383,837	41	2,753,008	75	5,136,845	
14	36	2,432,108	29	1,747,779	65	4,179,887	
15	16	--	23	1,914,639	39	3,168,821	
16	28	1,720,363	43	2,525,938	71	4,246,301	
17	26	1,776,643	29	1,874,851	55	3,651,495	
18	15	--	22	1,262,988	37	2,332,332	
19	26	1,941,429	14	--	40	2,754,190	
20	31	2,243,907	26	1,521,159	57	3,765,066	
21	39	2,484,501	46	2,473,443	85	4,957,944	
22	33	2,017,519	37	2,053,177	70	4,070,696	
23	32	2,280,044	38	2,414,848	70	4,694,893	

**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, 2022**

**General Employees**

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

Service	Men		Women		Total	
	Number	Compensation	Number	Compensation	Number	Compensation
24	28	\$1,865,868	23	\$1,481,481	51	\$3,347,349
25	17	--	17	--	34	2,391,096
26	15	--	18	--	33	2,273,619
27	17	--	12	--	29	2,188,239
28	13	--	19	--	32	2,143,931
29	4	--	14	--	18	--
30	11	--	13	--	24	1,726,992
31	6	--	10	--	16	--
32	6	--	13	--	19	--
33	6	--	8	--	14	--
34	6	--	8	--	14	--
35	4	--	4	--	8	--
36	2	--	3	--	5	--
37	3	--	3	--	6	--
38	1	--	2	--	3	--
39	--	--	--	--	--	--
40	--	--	1	--	1	--
41	1	--	1	--	2	--
42	1	--	2	--	3	--
43	--	--	--	--	--	--
44	--	--	--	--	--	--
45	--	--	1	--	1	--
<b>Total</b>	<b>1,354</b>	<b>\$ 86,294,038</b>	<b>1,700</b>	<b>\$96,487,151</b>	<b>3,054</b>	<b>\$182,781,189</b>



**TABLE 7E – DETAILED TABULATIONS OF THE DATA**

**The Number and Annual Salaries of Members in Active Service Distributed by Age as of January 1, 2022**

**Deputy Sheriffs**

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

Age	Number	Men		Women		Total	
		Compensation	Number	Compensation	Number	Compensation	Number
22	2	--	1	--	3	--	
23	7	--	1	--	8	--	
24	5	--	2	--	7	--	
25	9	--	--	--	9	--	
26	12	--	--	--	12	--	
27	10	--	2	--	12	--	
28	6	--	1	--	7	--	
29	13	--	--	--	13	--	
30	10	--	--	--	10	--	
31	7	--	1	--	8	--	
32	13	--	1	--	14	--	
33	5	--	--	--	5	--	
34	4	--	--	--	4	--	
35	6	--	2	--	8	--	
36	4	--	1	--	5	--	
37	2	--	1	--	3	--	
38	2	--	1	--	3	--	
39	4	--	1	--	5	--	
40	6	--	3	--	9	--	
41	3	--	--	--	3	--	
42	4	--	--	--	4	--	
43	6	--	1	--	7	--	

**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, 2022**

**Deputy Sheriffs**

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

Age	Number	Men		Women		Total	
		Compensation	Number	Compensation	Number	Compensation	Number
44	2	--	--	--	--	2	--
45	8	--	1	--	--	9	--
46	5	--	2	--	--	7	--
47	1	--	1	--	--	2	--
48	5	--	1	--	--	6	--
49	12	--	3	--	--	15	--
50	14	--	3	--	--	17	--
51	10	--	1	--	--	11	--
52	13	--	1	--	--	14	--
53	5	--	2	--	--	7	--
54	7	--	1	--	--	8	--
55	2	--	1	--	--	3	--
56	2	--	2	--	--	4	--
57	--	--	--	--	--	--	--
58	--	--	--	--	--	--	--
59	--	--	--	--	--	--	--
60	--	--	--	--	--	--	--
61	1	--	--	--	--	1	--
<b>Grand Total</b>	<b>227</b>	<b>\$15,851,164</b>	<b>38</b>	<b>\$2,759,370</b>	<b>265</b>	<b>\$18,610,534</b>	

**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, 2022**

**Deputy Sheriffs**

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

Service	Number	Men		Women		Total	
		Compensation	Number	Compensation	Number	Compensation	Number
0	15	--	1	--	16	--	
1	17	--	2	--	19	--	
2	27	\$1,656,067	4	--	31	\$1,902,076	
3	10	--	--	--	10	--	
4	19	--	3	--	22	1,354,338	
5	12	--	2	--	14	--	
6	13	--	4	--	17	--	
7	3	--	1	--	4	--	
8	5	--	--	--	5	--	
9	4	--	1	--	5	--	
10	3	--	--	--	3	--	
11	--	--	1	--	1	--	
12	4	--	--	--	4	--	
13	2	--	--	--	2	--	
14	1	--	--	--	1	--	
15	1	--	--	--	1	--	
16	2	--	--	--	2	--	
17	1	--	--	--	1	--	
18	1	--	--	--	1	--	
19	3	--	--	--	3	--	
20	3	--	--	--	3	--	
21	7	--	2	--	9	--	

**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, 2022**

**Deputy Sheriffs**

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

Service	Number	Men		Women		Total	
		Compensation	Number	Compensation	Number	Compensation	
22	8	--	4	--	12	--	
23	15	--	3	--	18	--	
24	9	--	2	--	11	--	
25	18	--	3	--	21	\$1,684,522	
26	3	--	2	--	5	--	
27	11	--	--	--	11	--	
28	8	--	2	--	10	--	
29	--	--	--	--	--	--	
30	--	--	--	--	--	--	
31	1	--	--	--	1	--	
32	--	--	--	--	--	--	
33	1	--	1	--	2	--	
<b>Total</b>	<b>227</b>	<b>\$15,851,164</b>	<b>38</b>	<b>\$2,759,370</b>	<b>265</b>	<b>\$18,610,534</b>	

TABLE 7G – DETAILED TABULATIONS OF THE DATA

The Number and Annual Salaries of Members in Active Service Distributed by Age as of January 1, 2022

Elected Officials

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

Age	Men		Women		Total	
	Number	Compensation	Number	Compensation	Number	Compensation
35	1	--	--	--	1	--
36	--	--	--	--	--	--
37	--	--	--	--	--	--
38	--	--	--	--	--	--
39	--	--	--	--	--	--
40	--	--	--	--	--	--
41	--	--	--	--	--	--
42	--	--	--	--	--	--
43	--	--	--	--	--	--
44	--	--	--	--	--	--
45	--	--	--	--	--	--
46	--	--	--	--	--	--
47	--	--	--	--	--	--
48	--	--	--	--	--	--
49	--	--	--	--	--	--
50	--	--	--	--	--	--
51	--	--	--	--	--	--
52	--	--	--	--	--	--
53	--	--	--	--	--	--
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, 2022**

**Elected Officials**

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

Age	Number	Men		Women		Total	
		Compensation	Number	Compensation	Number	Compensation	Number
57	--	--	--	--	--	--	--
58	1	--	--	--	1	--	--
59	--	--	--	--	--	--	--
60	--	--	--	--	--	--	--
61	1	--	--	--	1	--	--
62	--	--	--	--	--	--	--
63	1	--	--	--	1	--	--
64	1	--	--	--	1	--	--
65	1	--	--	--	1	--	--
<b>Total</b>	<b>6</b>	--	--	--	<b>6</b>	--	--

**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, 2022  
Elected Officials**

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

Service	Number	Men		Women		Total	
		Compensation	Number	Compensation	Number	Compensation	Number
0	--	--	--	--	--	--	--
1	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--
3	2	--	--	--	2	--	--
4	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--
6	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--
9	1	--	--	--	1	--	--
10	--	--	--	--	--	--	--
11	--	--	--	--	--	--	--
12	--	--	--	--	--	--	--
13	--	--	--	--	--	--	--
14	--	--	--	--	--	--	--
15	--	--	--	--	--	--	--
16	--	--	--	--	--	--	--
17	--	--	--	--	--	--	--
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, 2022**

**Elected Officials**

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

Service	Number	Men		Women		Total	
		Compensation	Number	Compensation	Number	Compensation	Number
22	--	--	--	--	--	--	--
23	--	--	--	--	--	--	--
24	--	--	--	--	--	--	--
25	--	--	--	--	--	--	--
26	1	--	--	--	1	--	--
27	--	--	--	--	--	--	--
28	--	--	--	--	--	--	--
29	--	--	--	--	--	--	--
30	1	--	--	--	1	--	--
31	--	--	--	--	--	--	--
32	1	--	--	--	1	--	--
<b>Total</b>	<b>6</b>	--	--	--	<b>6</b>	--	--



**TABLE 7I – DETAILED TABULATIONS OF THE DATA**

**The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2022**

**All Members**

Age	Number	Men		Women		Total	
		Annuities	Number	Annuities	Number	Annuities	
21	2	\$29,198	2	\$12,513	4	\$41,711	
22	--	--	--	--	--	--	--
23	--	--	--	--	--	--	--
24	--	--	--	--	--	--	--
25	--	--	--	--	--	--	--
26	--	--	1	14,700	1	14,700	
27	--	--	--	--	--	--	--
28	--	--	--	--	--	--	--
29	1	28,140	--	--	1	28,140	
30	--	--	--	--	--	--	--
31	--	--	--	--	--	--	--
32	--	--	1	10,650	1	10,650	
33	2	15,548	--	--	2	15,548	
34	--	--	--	--	--	--	--
35	--	--	--	--	--	--	--
36	--	--	--	--	--	--	--
37	--	--	--	--	--	--	--
38	1	6,186	1	30,886	2	37,073	
39	1	17,520	--	--	1	17,520	
40	--	--	--	--	--	--	--
41	1	22,747	1	4,720	2	27,467	
42	1	47,452	--	--	1	47,452	
43	--	--	1	17,626	1	17,626	

**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, 2022**

**All Members**

Age	Men		Women		Total	
	Number	Annuities	Number	Annuities	Number	Annuities
44	1	\$38,513	1	\$ 6,761	2	\$45,275
45	2	82,047	--	--	2	82,047
46	2	58,753	2	65,004	4	123,756
47	3	71,897	1	51,392	4	123,289
48	3	75,824	1	29,856	4	105,680
49	3	145,509	--	--	3	145,509
50	6	264,598	5	145,122	11	409,720
51	8	354,918	9	276,771	17	631,689
52	22	822,378	4	161,799	26	984,176
53	9	340,418	11	351,289	20	691,707
54	19	808,088	16	373,209	35	1,181,297
55	20	802,653	25	671,639	45	1,474,292
56	22	781,136	34	974,071	56	1,755,207
57	24	965,577	46	1,251,382	70	2,216,959
58	37	1,207,069	66	1,780,730	103	2,987,799
59	46	1,320,782	38	1,146,552	84	2,467,334
60	63	1,448,415	88	1,855,418	151	3,303,833
61	43	1,111,925	118	2,479,528	161	3,591,453
62	71	1,960,710	123	2,393,065	194	4,353,775
63	80	2,209,444	120	2,609,661	200	4,819,104
64	82	1,967,271	174	3,979,819	256	5,947,090
65	120	2,943,865	156	3,272,753	276	6,216,617
66	107	2,935,125	167	3,328,055	274	6,263,180

**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, 2022**

**All Members**

Age	Men		Women		Total	
	Number	Annuities	Number	Annuities	Number	Annuities
67	136	\$3,558,003	174	\$3,610,927	310	\$7,168,930
68	138	3,623,013	202	4,023,777	340	7,646,790
69	149	4,532,188	208	3,853,303	357	8,385,490
70	143	3,971,542	221	4,841,120	364	8,812,661
71	176	5,104,045	201	3,732,765	377	8,836,810
72	171	4,765,275	230	4,357,874	401	9,123,148
73	154	4,968,220	199	3,988,060	353	8,956,280
74	169	4,723,548	226	4,769,704	395	9,493,252
75	120	3,726,672	188	4,589,695	308	8,316,367
76	100	2,774,720	132	2,806,719	232	5,581,438
77	89	2,293,722	130	2,822,892	219	5,116,615
78	85	2,324,120	131	2,578,248	216	4,902,368
79	83	2,556,525	129	2,635,381	212	5,191,905
80	59	1,608,978	97	1,860,914	156	3,469,892
81	68	1,945,363	78	1,579,078	146	3,524,442
82	61	1,633,837	99	1,971,102	160	3,604,940
83	41	1,085,008	94	1,977,929	135	3,062,938
84	50	1,263,841	88	1,541,230	138	2,805,071
85	46	1,333,193	88	1,650,697	134	2,983,890
86	29	831,446	85	1,689,400	114	2,520,846
87	32	925,417	61	1,099,274	93	2,024,691
88	24	723,306	51	924,236	75	1,647,542
89	38	986,979	64	1,257,931	102	2,244,910

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, 2022  
All Members

Age	Men		Women		Total	
	Number	Annuities	Number	Annuities	Number	Annuities
90	30	\$802,028	54	\$1,109,082	84	\$1,911,110
91	13	363,101	75	1,261,539	88	1,624,641
92	18	392,013	51	785,642	69	1,177,655
93	15	311,973	48	680,391	63	992,364
94	9	298,372	38	612,946	47	911,318
95	7	126,753	28	330,375	35	457,128
96	5	151,053	21	282,392	26	433,446
97	6	179,510	17	280,381	23	459,891
98	3	66,039	11	181,908	14	247,947
99	--	--	10	111,052	10	111,052
100	4	65,087	10	88,009	14	153,095
101	1	8,562	2	13,030	3	21,592
102	--	--	1	11,909	1	11,909
103	--	--	--	--	--	--
104	--	--	1	1,495	1	1,495
<b>Total</b>	<b>3,074</b>	<b>\$86,907,158</b>	<b>4,755</b>	<b>\$97,207,375</b>	<b>7,829</b>	<b>\$184,114,533</b>

## TABLE 7J – DETAILED TABULATIONS OF THE DATA

**The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2022**  
**Retired Members**

Age	Men		Women		Total	
	Number	Annuities	Number	Annuities	Number	Annuities
48	--	--	1	\$21,407	1	\$21,407
49	--	--	2	96,117	2	96,117
50	--	--	1	86,980	1	86,980
51	4	\$105,040	4	196,400	8	301,440
52	3	123,193	12	494,206	15	617,399
53	8	272,779	5	185,668	13	458,448
54	12	300,930	13	546,801	25	847,731
55	20	514,839	19	787,237	39	1,302,076
56	27	768,625	20	713,381	47	1,482,006
57	33	878,636	20	787,041	53	1,665,677
58	55	1,492,003	31	1,083,765	86	2,575,768
59	35	1,068,770	41	1,183,112	76	2,251,882
60	77	1,667,725	62	1,424,599	139	3,092,324
61	104	2,220,997	42	1,104,351	146	3,325,349
62	113	2,189,977	67	1,837,861	180	4,027,838
63	109	2,428,103	74	2,095,933	183	4,524,037
64	156	3,577,354	76	1,838,761	232	5,416,115
65	144	2,972,747	112	2,745,901	256	5,718,648
66	141	2,782,620	100	2,824,325	241	5,606,946
67	159	3,231,504	125	3,385,302	284	6,616,806
68	183	3,601,794	128	3,398,878	311	7,000,672
69	190	3,499,118	137	4,164,731	327	7,663,849
70	192	4,135,966	134	3,885,643	326	8,021,609

**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, 2022**

**Retired Members**

Age	Men		Women		Total	
	Number	Annuities	Number	Annuities	Number	Annuities
71	178	\$3,104,238	171	\$4,987,358	349	\$8,091,597
72	203	3,862,313	162	4,631,454	365	8,493,767
73	168	3,348,468	146	4,834,628	314	8,183,095
74	194	4,024,703	162	4,603,440	356	8,628,143
75	157	3,814,945	114	3,633,444	271	7,448,389
76	108	2,272,571	91	2,662,203	199	4,934,774
77	101	2,104,001	81	2,209,628	182	4,313,629
78	109	2,188,290	75	2,186,094	184	4,374,385
79	104	2,059,705	79	2,479,216	183	4,538,921
80	75	1,365,222	58	1,590,902	133	2,956,124
81	56	1,117,689	60	1,841,639	116	2,959,328
82	81	1,628,469	56	1,588,372	137	3,216,840
83	67	1,337,045	41	1,085,008	108	2,422,053
84	62	1,067,793	42	1,158,881	104	2,226,674
85	57	1,031,452	41	1,270,746	98	2,302,198
86	61	1,201,452	28	818,659	89	2,020,111
87	36	531,729	30	855,689	66	1,387,419
88	31	585,047	20	681,613	51	1,266,660
89	32	523,670	35	979,760	67	1,503,430
90	34	672,378	27	769,975	61	1,442,352
91	44	728,704	11	340,613	55	1,069,317
92	29	424,810	16	378,253	45	803,063
93	27	421,396	12	283,817	39	705,212

**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, 2022**  
**Retired Members**

Age	Number	Men		Women		Total	
		Annuities	Number	Annuities	Number	Annuities	
94	18	\$253,862	9	\$298,372	27	\$552,234	
95	12	159,465	6	123,250	18	282,715	
96	12	170,188	4	143,771	16	313,960	
97	10	134,410	6	179,510	16	313,920	
98	6	59,973	3	66,039	9	126,013	
99	4	32,397	--	--	4	32,397	
100	7	65,091	3	55,360	10	120,451	
101	1	8,612	1	8,562	2	17,174	
102	1	11,909	--	--	1	11,909	
103	--	--	--	--	--	--	
104	1	1,495	--	--	1	1,495	
<b>Total</b>	<b>3,851</b>	<b>\$78,146,215</b>	<b>2,816</b>	<b>\$81,634,659</b>	<b>6,667</b>	<b>\$159,780,874</b>	

TABLE 7K – DETAILED TABULATIONS OF THE DATA

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2022

Disabled Members

Age	Number	Men		Women		Total	
		Annuities	Number	Annuities	Number	Annuities	
41	--	--	1	\$22,747	1	\$22,747	
42	--	--	1	47,452	1	47,452	
43	--	--	--	--	--	--	
44	--	--	1	38,513	1	38,513	
45	--	--	2	82,047	2	82,047	
46	1	\$50,615	2	58,753	3	109,368	
47	1	51,392	1	49,233	2	100,625	
48	--	--	2	54,417	2	54,417	
49	--	--	1	49,392	1	49,392	
50	3	102,585	5	177,618	8	280,203	
51	3	99,541	4	158,518	7	258,059	
52	1	38,605	9	312,146	10	350,752	
53	3	78,510	3	147,749	6	226,259	
54	4	72,279	4	170,232	8	242,510	
55	4	137,704	1	15,416	5	153,120	
56	5	178,692	2	67,755	7	246,447	
57	8	284,939	4	178,536	12	463,475	
58	8	177,261	5	115,877	13	293,138	
59	3	77,783	2	104,181	5	181,964	
60	4	59,320	1	23,816	5	83,136	
61	5	128,357	--	--	5	128,357	
62	5	133,508	3	103,185	8	236,693	
63	1	24,399	5	109,145	6	133,544	



**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, 2022**

**Disabled Members**

Age	Number	Men		Women		Total
		Annuities	Number	Annuities	Number	
64	8	\$231,966	6	\$128,510	14	\$360,476
65	3	50,979	6	154,101	9	205,080
66	3	81,426	3	65,186	6	146,613
67	2	34,783	4	89,548	6	124,330
68	1	35,591	6	197,503	7	233,094
69	1	14,636	6	214,971	7	229,607
70	6	180,193	3	37,928	9	218,121
71	3	63,441	1	36,592	4	100,034
72	4	61,735	3	96,144	7	157,879
73	2	32,030	3	80,599	5	112,629
74	3	55,535	1	35,702	4	91,237
75	1	10,592	1	26,467	2	37,059
76	--	--	4	44,016	4	44,016
77	4	62,151	1	7,584	5	69,735
78	3	60,982	2	59,162	5	120,144
79	5	71,068	2	51,059	7	122,127
80	3	80,732	1	18,076	4	98,809
81	2	42,419	2	53,699	4	96,118
82	1	22,416	1	19,235	2	41,651
83	1	15,797	--	--	1	15,797
84	2	42,445	2	39,550	4	81,995
85	1	11,247	1	29,452	2	40,699
86	1	24,608	--	--	1	24,608

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, 2022

Disabled Members

Age	Number	Men		Women		Total
		Annuities	Number	Annuities	Number	
87	1	\$15,399	--	--	1	\$15,399
88	1	20,833	1	\$20,857	2	41,690
89	2	50,607	--	--	2	50,607
90	1	15,176	--	--	1	15,176
91	2	52,723	--	--	2	52,723
92	1	15,702	--	--	1	15,702
93	1	16,568	--	--	1	16,568
94	1	14,386	--	--	1	14,386
95	--	--	--	--	--	--
96	--	--	--	--	--	--
97	--	--	--	--	--	--
98	1	16,871	--	--	1	16,871
<b>Total</b>	<b>130</b>	<b>\$3,200,528</b>	<b>119</b>	<b>\$3,592,670</b>	<b>249</b>	<b>\$6,793,198</b>

TABLE 7L – DETAILED TABULATIONS OF THE DATA

The Number and Annual Benefits Payable to Members Receiving Benefits Distributed by Age as of January 1, 2022  
Beneficiaries

Age	Number	Men		Women		Total Annuities
		Annuities	Number	Annuities	Number	
21	2	\$29,198	2	\$12,513	4	\$41,711
22	--	--	--	--	--	--
23	--	--	--	--	--	--
24	--	--	--	--	--	--
25	--	--	--	--	--	--
26	--	--	1	14,700	1	14,700
27	--	--	--	--	--	--
28	--	--	--	--	--	--
29	1	28,140	--	--	1	28,140
30	--	--	--	--	--	--
31	--	--	--	--	--	--
32	--	--	1	10,650	1	10,650
33	2	15,548	--	--	2	15,548
34	--	--	--	--	--	--
35	--	--	--	--	--	--
36	--	--	--	--	--	--
37	--	--	--	--	--	--
38	1	6,186	1	30,886	2	37,073
39	1	17,520	--	--	1	17,520
40	--	--	--	--	--	--
41	--	--	1	4,720	1	4,720
42	--	--	--	--	--	--
43	--	--	1	17,626	1	17,626

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, 2022  
Beneficiaries

Age	Number	Men		Women		Total
		Annuities	Number	Annuities	Number	Annuities
44	--	--	1	\$6,761	1	\$6,761
45	--	--	--	--	--	--
46	--	--	1	14,389	1	14,389
47	2	\$22,664	--	--	2	22,664
48	--	--	1	29,856	1	29,856
49	--	--	--	--	--	--
50	--	--	2	42,537	2	42,537
51	--	--	2	72,190	2	72,190
52	1	16,025	--	--	1	16,025
53	1	7,001	--	--	1	7,001
54	2	91,056	--	--	2	91,056
55	--	--	1	19,096	1	19,096
56	--	--	2	26,754	2	26,754
57	--	--	5	87,807	5	87,807
58	1	7,427	3	111,466	4	118,893
59	3	33,488	--	--	3	33,488
60	--	--	7	128,373	7	128,373
61	1	7,574	9	130,173	10	137,747
62	1	19,664	5	69,579	6	89,243
63	1	4,366	10	157,158	11	161,524
64	--	--	10	170,499	10	170,499
65	2	43,862	9	249,027	11	292,889
66	4	45,614	23	464,008	27	509,622

**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, 2022**  
**Beneficiaries**

Age	Number	Men		Women		Total
		Annuities	Number	Annuities	Number	
67	7	\$83,153	13	\$344,640	20	\$427,793
68	4	26,632	18	386,392	22	413,024
69	6	152,486	17	339,549	23	492,035
70	6	47,971	23	524,960	29	572,931
71	4	80,095	20	565,086	24	645,180
72	6	37,676	23	433,826	29	471,502
73	5	52,993	29	607,563	34	660,556
74	6	84,406	29	689,466	35	773,872
75	5	66,761	30	764,158	35	830,919
76	5	68,500	24	534,148	29	602,648
77	7	76,510	25	656,739	32	733,250
78	8	78,864	19	328,976	27	407,839
79	2	26,250	20	504,607	22	530,857
80	--	--	19	414,960	19	414,960
81	6	50,026	20	418,971	26	468,997
82	4	26,230	17	320,218	21	346,448
83	--	--	26	625,088	26	625,088
84	6	65,411	24	430,991	30	496,402
85	4	32,995	30	607,998	34	640,993
86	1	12,787	23	463,340	24	476,126
87	2	69,727	24	552,146	26	621,873
88	3	20,836	19	318,355	22	339,192
89	3	7,219	30	683,654	33	690,873

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, 2022  
Beneficiaries

Age	Number	Men		Women		Total
		Annuities	Number	Annuities	Number	Annuities
90	3	\$32,053	19	\$421,528	22	\$453,582
91	2	22,489	29	480,112	31	502,601
92	2	13,760	21	345,130	23	358,890
93	3	28,156	20	242,427	23	270,583
94	--	--	19	344,698	19	344,698
95	1	3,503	16	170,910	17	174,413
96	1	7,282	9	112,204	10	119,486
97	--	--	7	145,971	7	145,971
98	--	--	4	105,063	4	105,063
99	--	--	6	78,655	6	78,655
100	1	9,726	3	22,918	4	32,644
101	--	--	1	4,418	1	4,418
<b>Total</b>	<b>139</b>	<b>\$1,679,829</b>	<b>774</b>	<b>\$15,860,633</b>	<b>913</b>	<b>\$17,540,462</b>

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