



# North Carolina Local Governmental Employees' Retirement System

Principal Results of Actuarial Valuation as of December 31, 2022

October 26, 2023, Board of Trustees Meeting

Michael Ribble, FSA, EA, MAAA, FCA

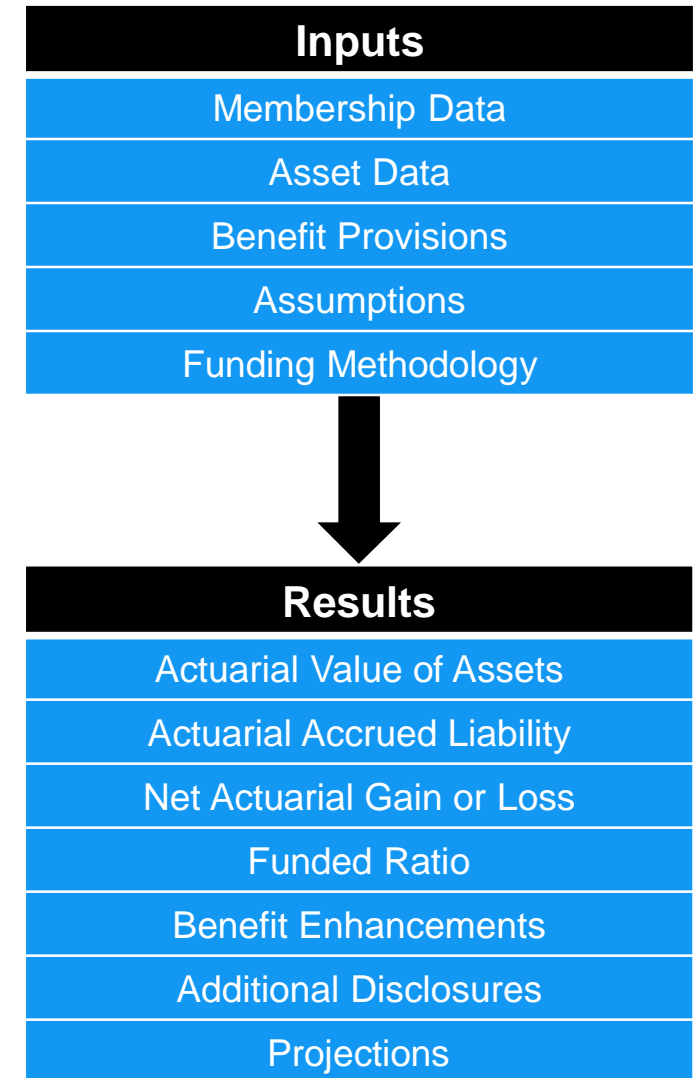
Elizabeth Wiley, FSA, EA, MAAA, FCA

# Purpose of the annual actuarial valuation

- As of the end of each calendar year:
  - An annual actuarial valuation is performed on LGERS
  - The actuary determines the amount of employer contributions to be made to LGERS during each member's career that, when combined with investment return and member contributions, are expected to be sufficient to pay for retirement benefits.
- In addition, the annual actuarial valuation is performed to:
  - Determine the progress on funding LGERS
  - Explore why the results of the current valuation differ from the results of the valuation of the previous year
  - Satisfy regulatory and accounting requirements

# The valuation process

- The diagram to the right summarizes the inputs and results of the actuarial valuation process.
- A detailed summary of the valuation process and a glossary of actuarial terms are provided in the supplementary document, “State of North Carolina Retirement Systems Actuarial Valuation Report Process and Actuarial Terms Glossary” dated October 2023.
- Bars at the top of the page, consistent with the diagram to the right, will appear throughout the presentation to designate where we are in the valuation process. Some of the items on the bars at the top of the page are covered in the appendix to the presentation.



# Valuation input

## Membership data

Membership Data	Asset Data	Benefit Provisions	Assumptions	Funding Methodology
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The table below provides a summary of the membership data used in this valuation compared to the prior valuation.

Number as of	12/31/2022	12/31/2021
Active members	135,706	132,235
Terminated vested members and survivors of deceased members entitled to benefits but not yet receiving benefits	26,221	24,552
Terminated non-vested members and survivors of deceased members entitled to benefits but not yet receiving benefits	75,597	68,951
Retired members and survivors of deceased members currently receiving benefits	<u>82,466</u>	<u>79,318</u>
<b>Total</b>	<b>319,990</b>	<b>305,026</b>

The number of active members increased by 2.6% from the previous valuation date.

The increase in the active population results in more members accruing benefits in the System.

The number of retired members and survivors of deceased members currently receiving benefits increased by 4.0% from the previous valuation.

The increase in retiree population is consistent with expectations.

A detailed summary of the membership data used in this valuation is provided in Section 2 and Appendix A.

# Valuation input

## Actives

Membership Data

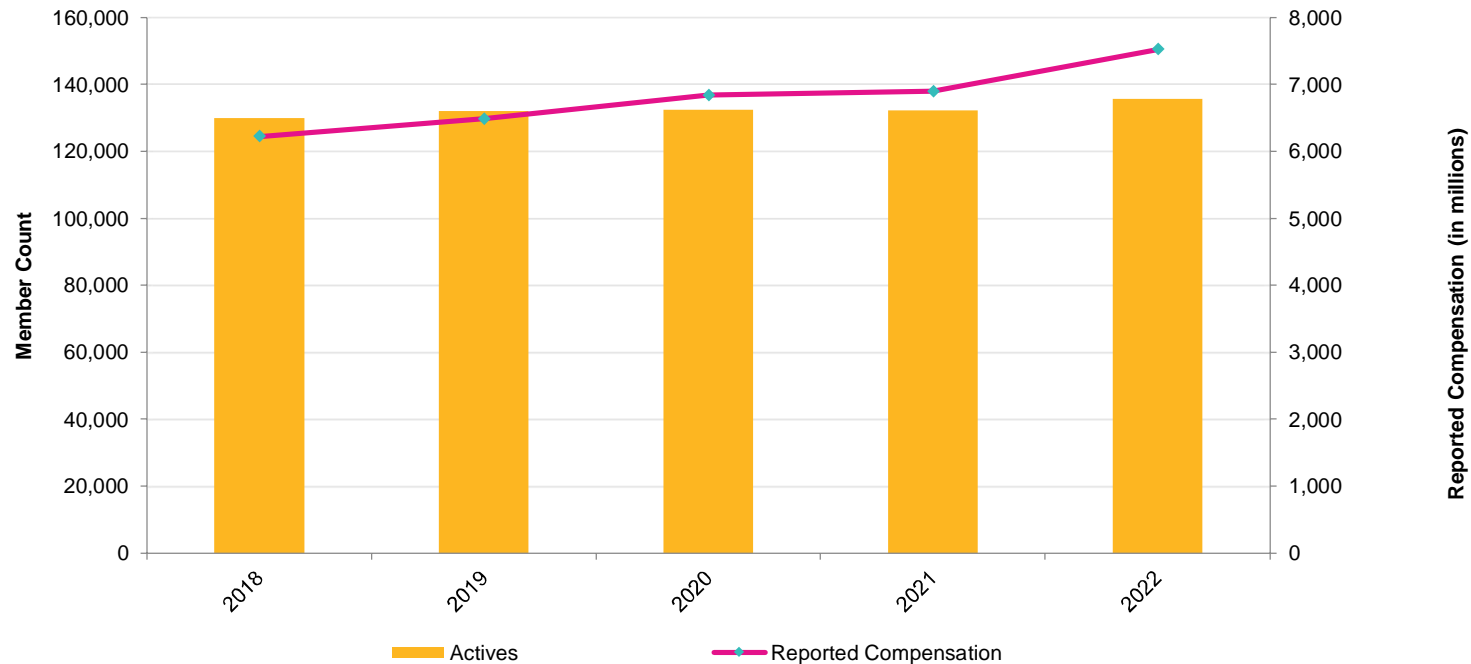
Asset Data

Benefit Provisions

Assumptions

Funding Methodology

The graph below provides a history of the number of active members and reported compensation over the past five years.



Reported compensation has increased by 9.1% over the past year.

Total covered payroll is expected to increase by approximately 3.25% annually in the future. Note that total covered payroll is retirement-eligible compensation paid to all members; it does not imply a 3.25% pay increase to all members.

Payroll that is increasing more quickly than we assume results in more benefits accruing than we anticipate, but also more contributions supporting the system. Although the pay increases will ultimately lead to increases in the dollar amounts of contributions, the immediate effect on the December 31, 2022 actuarial valuation is a reduction in the funded ratio and an increase in required employer contribution rates compared to those anticipated in prior projections.

A detailed summary of the membership data used in this valuation is provided in Section 2 and Appendix A.

# Valuation input

## Historical market value and returns

Membership Data

Asset Data

Benefit Provisions

Assumptions

Funding Methodology

The graph below provides a history of the market value of assets and asset returns over the past five years.



The investment return for the market value of assets for 2022 was (10.35)%, a negative return, which was well below the expected return of 6.50%.

The return on the actuarial value of assets, which is used to determine the contribution rates, was also below the 6.50% expected return at 4.53%.

This resulted in an increase in the Unfunded Actuarial Accrued Liability (UAAL) of \$621 million.

Market value returns have exceeded expectations three times in the last five years.

The annual rates of return on the actuarial value of assets have varied between 4.53% and 9.14% for the past five years.

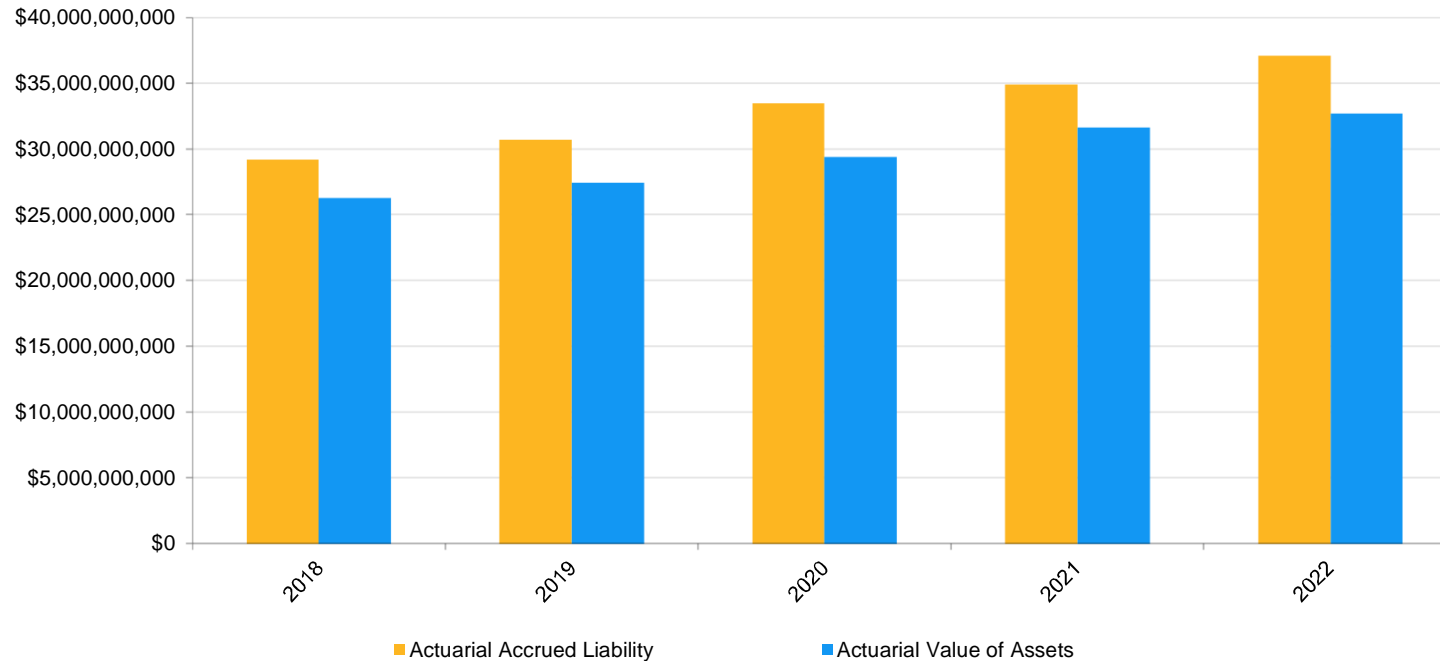
A detailed summary of the market value of assets is provided in Section 3.

# Valuation results

## AVA and AAL

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
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The graph below provides a history of the actuarial accrued liability and actuarial value of assets.



The difference in the actuarial accrued liability and the actuarial value of assets is known as the Unfunded Actuarial Accrued Liability (UAAL).

The UAAL is \$4.4 billion as of 12/31/2022 and is to be paid off over a 12-year period.

Detailed summaries of the AVA and AAL are provided in Sections 3 and 4, respectively.

# Valuation results

## Net actuarial gain or loss

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
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The table below provides a reconciliation of the prior year's unfunded actuarial accrued liability to the current year's unfunded actuarial accrued liability.

(in millions)	
Unfunded actuarial accrued liability (UAAL) as of 12/31/2021	\$ 3,241
Normal cost and administrative expense during 2022	894
Reduction due to actual contributions during 2022	(1,459)
Interest on UAAL, normal cost, and contributions	222
Asset (gain) / loss	621
Actuarial accrued liability (gain) / loss	862
Impact of assumption changes	0
Impact of benefit changes	0
Unfunded actuarial accrued liability (UAAL) as of 12/31/2022	\$ 4,381

During 2022, the UAAL increased more than expected due to the asset loss of \$621 million.

Additionally, changes in the census data, primarily higher-than-expected salary increases for continuing active members, increased the UAAL by \$862 million.

A detailed summary of the net actuarial gain or loss is provided in Section 4.

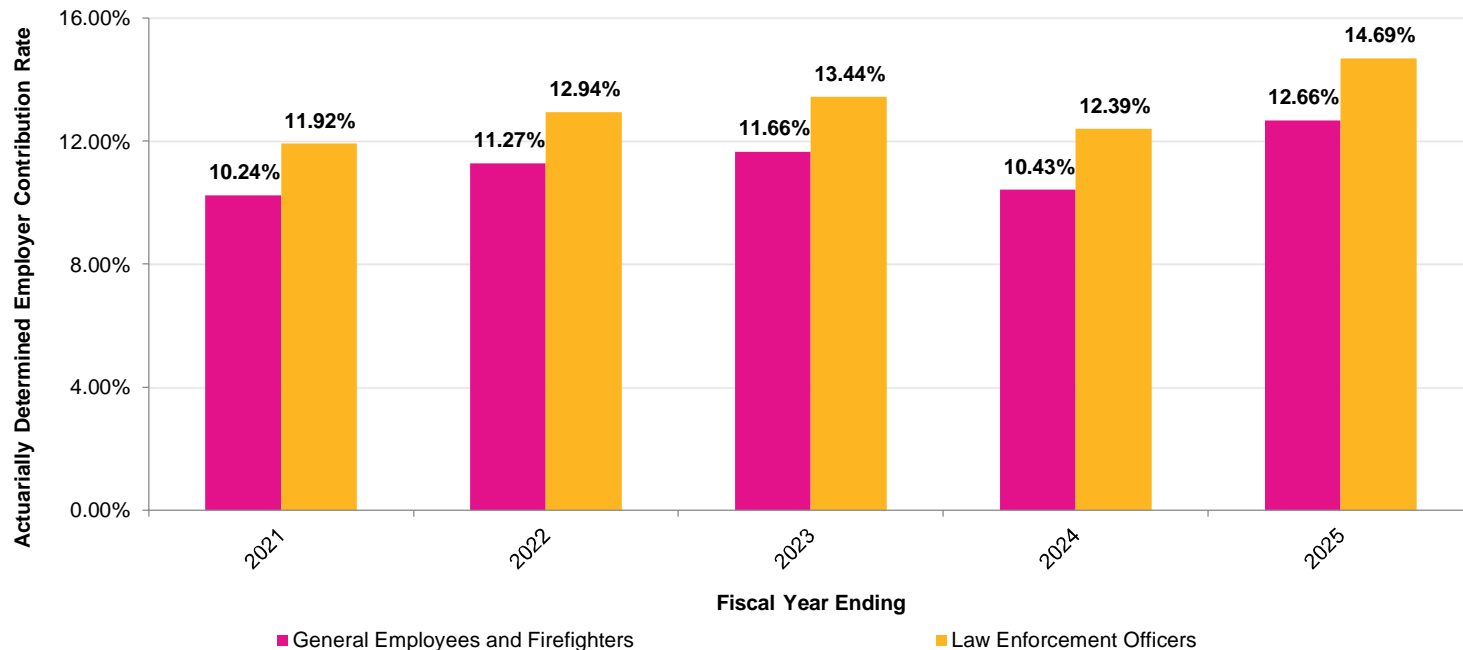


# Valuation results

## Actuarially determined rates

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
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The graph below provides a history of actuarially determined employer contribution rates over the past five years.



The actuarially determined employer contribution rates include the normal cost rate and the accrued liability rate.

The normal cost rate is the employer's portion of the cost of benefits accruing after reducing for the 6% of pay member contributions.

The accrued liability rate is the payment toward the unfunded liability needed to pay it off over a 12-year period.

The 12-year period is a relatively short period for Public Sector Retirement Systems in the United States, with most Systems using a longer period to pay off the pension debt. The shorter period results in higher contributions and more benefit security.

A detailed summary of the actuarially determined employer contribution rates is provided in Section 5.

# Valuation results

## Employer contributions

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
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The table below provides a reconciliation of the actuarially determined employer contribution.

	General Employees and Firefighters	Law Enforcement Officers
Fiscal year ending June 30, 2024 Preliminary ADEC (based on December 31, 2021 valuation)	10.43%	12.39%
Impact of benefit changes	<u>0.00%</u>	<u>0.00%</u>
Fiscal year ending June 30, 2024 Final ADEC	10.43%	12.39%
Expected change in UAAL*	0.26%	0.26%
Change due to demographic (gain)/loss	0.70%	0.61%
Change due to investment (gain)/loss	1.05%	1.05%
Change due to contributions greater than ADEC**	(0.38%)	(0.38%)
Impact of assumption changes	0.00%	0.00%
Impact of benefit changes	0.00%	0.00%
Impact of Direct Rate Smoothing	<u>0.60%</u>	<u>0.76%</u>
Fiscal year ending June 30, 2025 Preliminary ADEC based on December 31, 2022 valuation)	12.66%	14.69%

The change in rate due to investment loss is based on the actuarial value of assets return of 4.53%, which was lower than the 6.50% assumed return.

The change in rate due to demographic loss was largely due to higher-than-expected salary increases for continuing active members.

\* Since the ADEC is for fiscal years that begin after the valuation date, and actual contributions are based on the ADEC for the current fiscal year, the timing of the actual contributions can cause an expected increase in UAAL as of the valuation date.

\*\* Employer contribution rates during 2022 were greater than the ADEC.

# Valuation results

## ECRSP

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
---------------------------	-----------------------------	----------------------------	--------------	------------------------

The Employer Contribution Rate Stabilization Policy (ECRSP) would result in a recommended contribution rate of 13.60% of payroll for general employees and 15.10% of payroll for law enforcement officers for fiscal year ending 2025.

- 13.86% is the actuarially determined employer contribution calculated in this most recent valuation prior to direct-rate smoothing for general employees and 16.19% for law enforcement officers.
- 12.66% is the actuarially determined employer contribution after direct-rate smoothing for general employees and 14.69% for law enforcement officers.

- Scheduled ECRSP rate for general employees for FYE 2025 is 13.60%
- Scheduled ECRSP rate for general employees for FYE 2025 does not exceed the preliminary ADEC after direct-rate smoothing of 12.66% by more than 1%, therefore no adjustment applies
- No adjustment results in rate of 13.60% for general employees and 15.10% for law enforcement officers
- See Appendix H for the LGERS ECRSP Policy

A detailed summary of the actuarially determined employer contribution rates is provided in Section 5.

# Valuation results

## Potential COLAs and Supplements for fiscal year ending 2025

### Benefit Enhancements

### Additional Disclosures

### Projections

- The December 31, 2022, valuation indicates an actuarial investment loss was incurred during 2022, and there are no investment gains available to support authorization by the LGERS Board of Trustees of either of the following:
  - a Cost-of-Living Adjustment (COLA) that would take effect on July 1, 2024; or
  - a one-time supplement to participants in receipt of benefits on September 1, 2024, payable October 2024.
- Had it been permissible, the cost for a 1% COLA increase would have been \$201.3M, or an increase of 0.31% in the ADEC, payable over 12 years.
- Had it been permissible, the cost of a one-time 1% supplement payment would have been \$19.0M, or an increase of 0.22% in the ADEC, payable over a single year.

A detailed summary of the cost of benefit enhancements is provided in Section 5.

# Valuation results

## Potential COLA for fiscal year ending 2026

### Benefit Enhancements

### Additional Disclosures

### Projections

- Based on the methods and assumptions used for the projections discussed later in the presentation, the conditions for the Board to consider granting a COLA effective July 1, 2025, following the December 31, 2023, valuation would include the following minimal levels of investment return on market values of assets during 2023:
  - If calendar year 2023 market value return is at least 15.09% (or about \$4.45B for LGERS), the plan is estimated to have an actuarial investment gain (rather than a loss) for 2023 and such gain may be enough to provide some level of COLA effective July 1, 2025.
  - If calendar year 2023 market value return is at least 18.51% (or about \$5.45B for LGERS), the plan is estimated to have an actuarial investment gain (rather than a loss) for 2023 and such gain may be enough to provide a 1% COLA effective July 1, 2025.
    - Estimated actuarial investment gain of \$201.3M
    - Estimated cost of 1% COLA payable to retirees effective July 1, 2025 of \$201.3M

A detailed summary of the cost of benefit enhancements is provided in Section 5.

# Valuation results

## Potential supplements for fiscal year ending 2026

### Benefit Enhancements

### Additional Disclosures

### Projections

- Based on the methods and assumptions used for the projections discussed later in the presentation, the conditions for the Board to consider granting a **one-time supplement** to all in-receipt participants as of September 1, 2025 (payable in October 2025), following the December 31, 2023, valuation would include the following minimal levels of investment return on market values of assets during 2023:
  - If calendar year 2023 market value return is at least 15.09% (or about \$4.45B for LGERS), the plan is estimated to have an actuarial investment gain (rather than a loss) for 2023 and such gain may be enough to provide a one-time supplement payable in October 2025.
  - If calendar year 2023 market value return is at least 15.41% (or about \$4.54B for LGERS), the plan is estimated to have an actuarial investment gain (rather than a loss) for 2023 and such gain may be enough to provide a 1% one-time supplement payable in October 2025.
    - Estimated actuarial investment gain of \$19.0M
    - Estimated cost of 1% one-time supplement payable in October 2025 of \$19.0M

Note: Buck cannot provide legal advice. Neither this slide, nor any other slide, should be interpreted as legal advice as to the Board's ability to provide a COLA to retirees or recommend a COLA to the legislature

A detailed summary of the cost of benefit enhancements is provided in Section 5.

# Valuation results

## Projections

### Benefit Enhancements

### Additional Disclosures

### Projections

- Projections of actuarially determined employer contribution (ADEC) rates and funded status into the future can be helpful planning tools for stakeholders.
- Projections of the actuarial valuation are known as deterministic projections. Deterministic projections are based on one scenario in the future.
- Baseline deterministic projection is based on:
  - December 31, 2022 valuation results
  - December 31, 2022 valuation assumptions and methods to project future valuation results, including:
    - Valuation interest rate of 6.50% for all years
    - Investment return of 6.50% on market value of assets
- The contribution rate under the Employer Contribution Rate Stabilization Policy (ECRSP) is contributed until fiscal year ending 2027.
- The ADEC is contributed for fiscal years ending 2028 and beyond.
- For fiscal years beginning subsequent to January 1, 2017, the sum of the "normal contribution" and the "accrued liability contribution" shall not be less than the employee contribution, which is currently 6%.
- 0% increase in total active member population
- No cost-of-living adjustments granted
- Future pay increases based on long-term salary increase assumptions
- Two alternate deterministic projections based on the same assumptions as the baseline deterministic projection, except
  - First alternate deterministic projection assumes a 0% asset return for calendar year 2023.
  - Second alternate deterministic projection assumes a 13% asset return for calendar year 2023.

A detailed summary of the deterministic projections is provided in Section 6.

# Valuation results

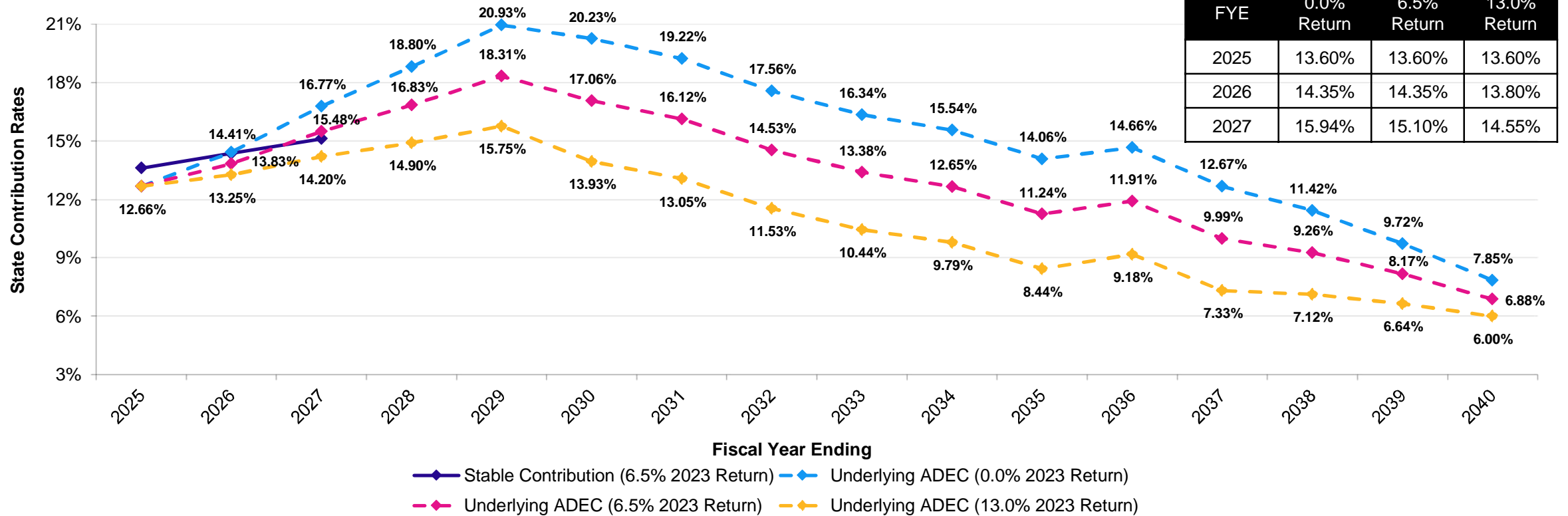
## Projected contribution rates

Benefit Enhancements

Additional Disclosures

Projections

### General Employees and Firefighters



A detailed summary of the deterministic projections is provided in Section 6.

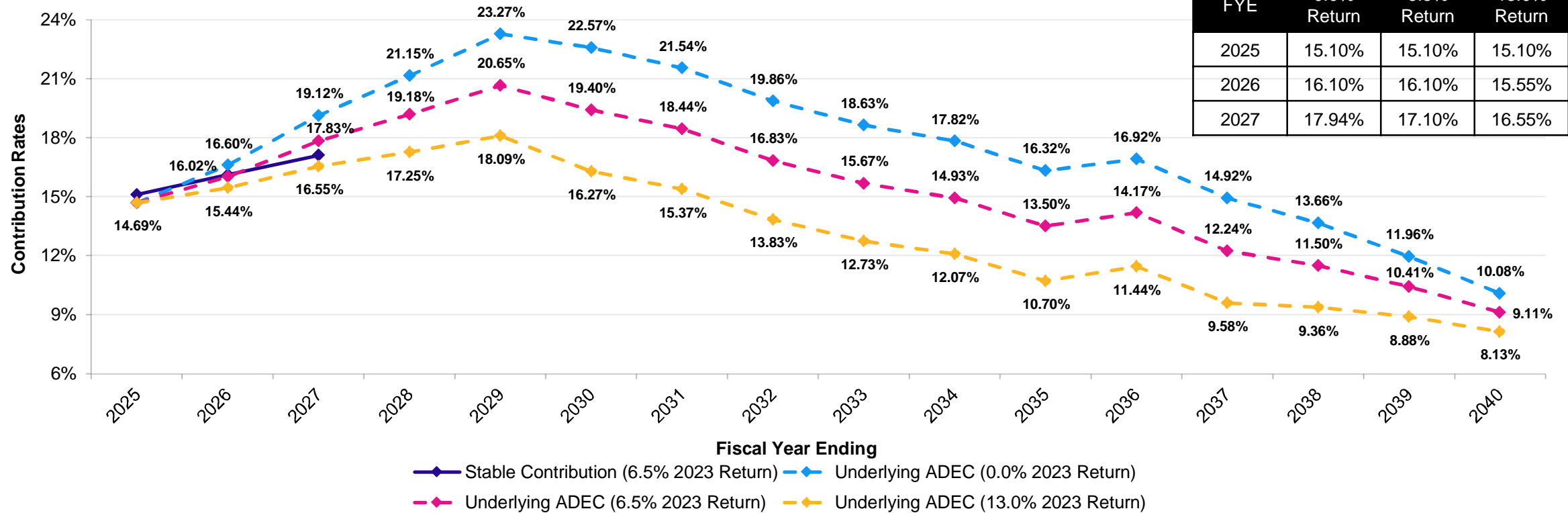


# Valuation results

## Projected contribution rates

Benefit Enhancements	Additional Disclosures	Projections
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### Law Enforcement Officers

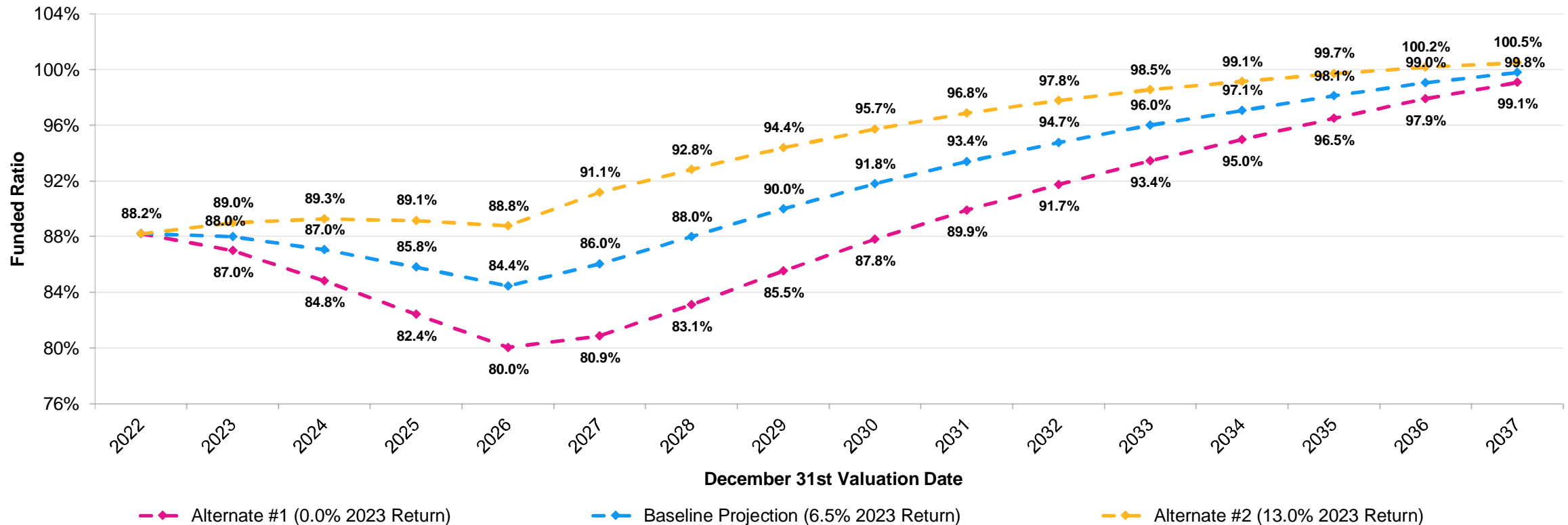


A detailed summary of the deterministic projections is provided in Section 6.

# Valuation results

## Projected funded ratio

Benefit Enhancements	Additional Disclosures	Projections
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A detailed summary of the deterministic projections is provided in Section 6.

# Key takeaways

- Key results of the December 31, 2022 valuation were:
  - Market value returns of (10.35)% compared to 6.50% assumed
  - Liabilities \$862 million higher than anticipated as of December 31, 2022, primarily from higher-than-expected salary increases for continuing active members.
  - Continuation of direct-rate smoothing of the change in the employer contribution rate due to the changes in assumptions and methods over a 5-year period beginning with the December 31, 2020 valuation
  - Recommended contributions under the Employer Contribution Rate Stabilization Policy (ECRSP) adopted by the Board of Trustees on April 29, 2021 and amended on January 27, 2022. ECRSP rates for FYE 6/30/2025 (assuming no COLA or other benefit or assumption changes):
    - 13.60% of payroll for general employees and firefighters
    - 15.10% of payroll for law enforcement officers

# Key takeaways (continued)

- When compared to the December 31, 2021 projections:
  - A lower funded ratio as of December 31, 2022 (88.2% in the valuation compared to 93.1% in the prior year's baseline projection)
  - Higher actuarially determined employer contribution rates for fiscal year ending June 30, 2025
    - 12.66% in the valuation compared to 10.14% in the prior year's baseline projection for general employees and firefighters
    - 14.69% in the valuation compared to 12.26% in the prior year's baseline projection for law enforcement officers
  - Actuarially determined employer contribution rates are less than Employer Contribution Rate Stabilization Policy (ECRSP) rates for general employees and firefighters, and are less than ECRSP rates for law enforcement officers
    - General Employees/Firefighter ECRSP of 13.60% vs. ADEC of 12.66%
    - Law Enforcement Officer ECRSP of 15.10% vs. ADEC of 14.69%

# Key takeaways (continued)

- LGERS is well funded compared to its peers. This is due to:
  - Stakeholders working together to keep LGERS well-funded since inception
  - A history of contributing the recommended contribution requirements
  - Assumptions that in aggregate are more conservative than peers
  - A funding policy that aggressively adjusts contribution rates to pay down unfunded liability
  - An ad hoc cost-of-living adjustment, which typically only provides benefit increases when certain financial conditions are met, supports the health of the system
  - Modest changes in benefits when compared to peers
- As has been done for over 75 years, continued focus on these measures will be needed to maintain the sustainability of LGERS well into the future

# Certification

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: fund experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law. Such changes in law may include additional costs resulting from future legislated benefit improvements or cost-of-living pension increases or supplements, which are not anticipated in the actuarial valuation. Because of limited scope, Buck performed no analysis of the potential range of such future differences, except for some limited analysis in financial projections or required disclosure information. Information contained in our report for plan years from December 31, 2017, to December 31, 2020, is based on valuations performed by the prior actuarial firm.

The purpose of this presentation is to provide a summary of the actuarial valuation results to the Board at the October 26, 2023 meeting attended by the actuaries. Use of this report for any other purposes may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of this presentation for that purpose. This presentation should not be provided without a copy of the full valuation report. Because of the risk of misinterpretation of actuarial results, you should ask Buck, A Gallagher Company (Buck) to review any statement you wish to make on the results contained in this presentation. Buck will not accept any liability for any such statement made without prior review.

This presentation is considered part of the annual actuarial valuation report. Please see below for full description of data, actuarial assumptions and methods, plan provisions, and other applicable disclosures.

This report was prepared under our supervision and in accordance with all applicable Actuarial Standards of Practice. We are Fellows of the Society of Actuaries, Enrolled Actuaries, Members of the American Academy of Actuaries, and Fellows of the Conference of Consulting Actuaries. We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. We are available to discuss this report with you at your convenience.

Michael A. Ribble, FSA, EA, MAAA, FCA

Elizabeth A. Wiley, FSA, EA, MAAA, FCA

# Appendix I

Supplemental Information

# Valuation input

## Retirees and survivors receiving benefits

Membership Data

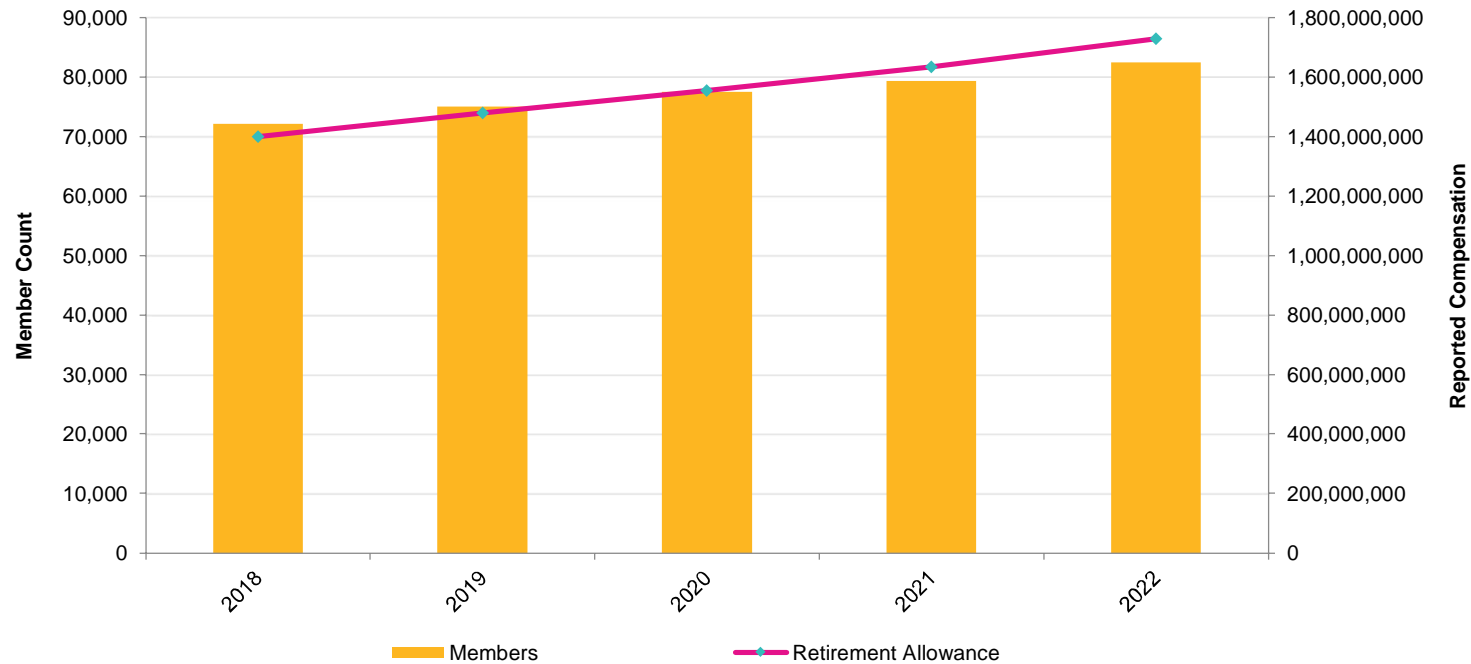
Asset Data

Benefit Provisions

Assumptions

Funding Methodology

The graph below provides a history of the number of retired members and survivors of deceased members and benefit amounts payable over the past five years.



The number of retired members and survivors of deceased members and the benefits paid to these members has been increasing steadily, as expected based on plan assumptions.

A detailed summary of the membership data used in this valuation is provided in Section 2 and Appendix A.



# Valuation input

## Market value

Membership Data	Asset Data	Benefit Provisions	Assumptions	Funding Methodology
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The table below provides details of the Market Value of Assets for the current and prior year's valuations.

Asset data as of	12/31/2022	12/31/2021
Beginning of year market value of assets	\$ 33,459,926,149	\$ 30,905,570,910
Employer contributions	966,602,473	813,119,212
Employee contributions	490,316,163	461,053,728
Court costs	2,484,268	2,360,217
Benefit payments other than refunds	(1,736,653,302)	(1,609,920,723)
Refunds	(76,250,624)	(72,899,062)
Administrative expenses	(5,728,433)	(5,399,241)
Investment income	<u>(3,445,288,880)</u>	<u>2,966,041,108</u>
Net increase / (decrease)	(3,804,518,335)	2,554,355,239
End of year market value of assets	\$ 29,655,407,814	\$ 33,459,926,149
Estimated net investment return on market value	(10.35)%	9.66%

LGERS assets are held in trust and are invested for the exclusive benefit of plan members.

Incoming contributions currently cover over 80% of the outgoing benefit payments and administrative expenses.

Over the long term, benefit payments and administrative expenses not paid for by contributions are expected to be covered with investment income, illustrating the benefits of following actuarial pre-funding since inception.

A detailed summary of the market value of assets is provided in Section 3.

# Valuation input

## Asset allocation

Membership Data

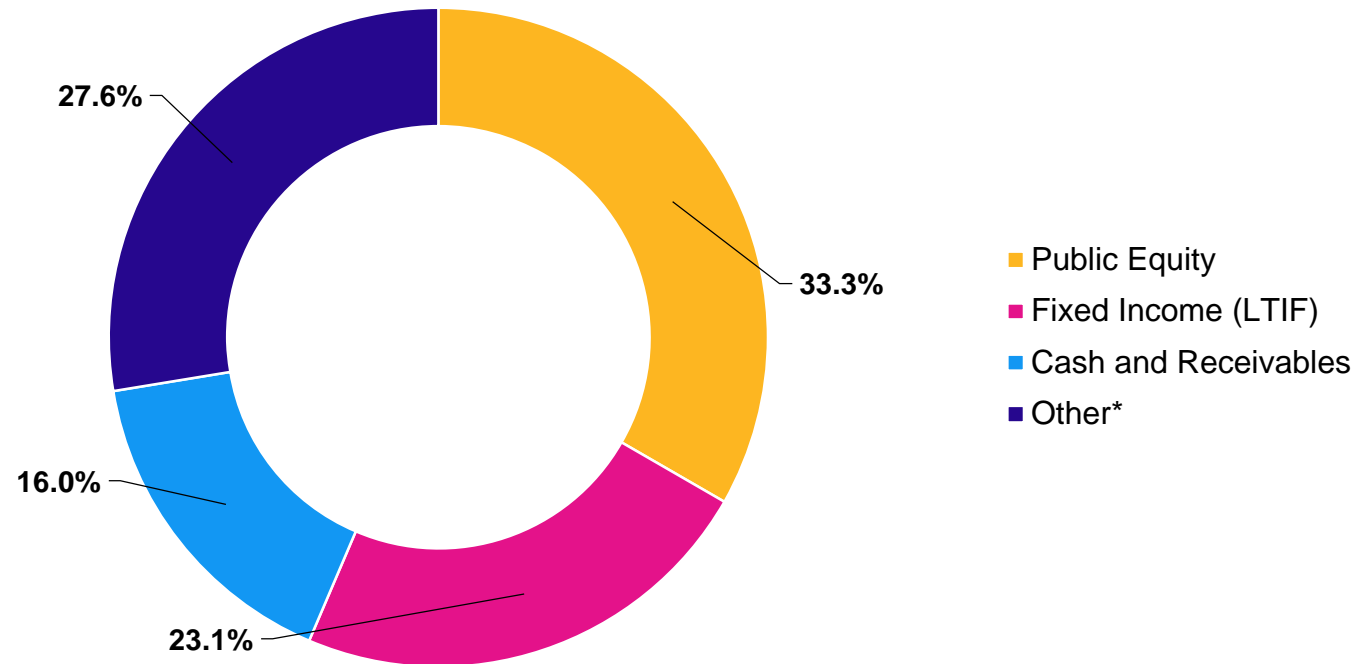
Asset Data

Benefit Provisions

Assumptions

Funding Methodology

The graph below provides the breakdown of the market value of assets at December 31, 2022 by asset category.



Based on historical market returns, the current asset allocation, the current investment policy, and the expectation of future asset returns, as reviewed in the recent experience study, the 6.50% discount rate used in this valuation is reasonable and appropriate.

\* Other includes real estate, alternatives, inflation, and credit.

A detailed summary of the market value of assets is provided in Section 3.

# Valuation input

## Benefit provisions

Membership Data

Asset Data

Benefit Provisions

Assumptions

Funding Methodology

Benefit provisions are described in North Carolina General Statutes, Chapter 128, Article 3.

- There were no changes in benefit provisions from the prior year's valuation.

Many Public Sector Retirement Systems in the United States have undergone pension reform where the benefits of members (active or future members) have been reduced.

Because of the well-funded status of LGERS due to the employers paying the actuarially determined employer contribution, benefit cuts have not been made in North Carolina as they have been in most other states.

A detailed summary of the benefit provisions is provided in Appendix B.

# Valuation input

## Actuarial assumptions

Membership Data

Asset Data

Benefit Provisions

Assumptions

Funding Methodology

Actuarial assumptions bridge the gap between the information that we know with certainty as of the valuation date and what may happen in the future. The assumptions used include the following:

- Demographic
  - Retirement
  - Termination
  - Disability
  - Death
- Economic
  - Interest rate – 6.50% per year
  - Salary increase (individual, varies by service and job type)
  - Inflation – 2.50%
  - Real wage growth – 0.75%

The assumptions used for the December 31, 2022, actuarial valuation are based on the experience study prepared as of December 31, 2019, and adopted by the Board of Trustees on January 28, 2021.

No assumption changes have been made since the prior valuation.

A detailed summary of the actuarial assumptions and methods is provided in Appendix C.

# Valuation input

## Actuarial cost method

Membership Data

Asset Data

Benefit Provisions

Assumptions

Funding Methodology

The Funding Methodology is the payment plan for LGERS and is composed of the Actuarial Cost Method, the Asset Valuation Method and Amortization Method.

- Actuarial Cost Methods allocate costs to the actuarial accrued liability (i.e., the amount of money that should be in the fund) for past service and normal cost (i.e., the cost of benefits accruing during the year) for current service.
  - The Board of Trustees has adopted Entry Age Normal as its actuarial cost method
  - This method develops normal costs that stay level as a percent of payroll

The following “Objectives and Principles for Funding Public Sector Pension Plans” provides information on funding of Public Plans: [https://www.actuary.org/sites/default/files/files/Public-Plans\\_IB-Funding-Policy\\_02-18-2014.pdf](https://www.actuary.org/sites/default/files/files/Public-Plans_IB-Funding-Policy_02-18-2014.pdf).

Page 15 of the following [https://www.ccactuaries.org/docs/default-source/papers/cca-ppc\\_actuarial-funding-policies-and-practices-for-public-pension-plans.pdf](https://www.ccactuaries.org/docs/default-source/papers/cca-ppc_actuarial-funding-policies-and-practices-for-public-pension-plans.pdf) - denotes Entry Age Normal as a model practice for cost methods.

A detailed summary of the actuarial assumptions and methods is provided in Appendix C.

# Valuation input

## Asset valuation method

Membership Data

Asset Data

Benefit Provisions

Assumptions

Funding Methodology

The Funding Methodology is the payment plan for LGERS and is composed of the Actuarial Cost Method, the Asset Valuation Method and Amortization Method.

- Asset Valuation Methods smooth or average the market value returns over time to alleviate contribution volatility that results from market returns.
  - Asset returns in excess of or less than the expected return on market value of assets reflected over a five-year period
  - Assets corridor: not greater than 120% of market value and not less than 80% of market value

Page 20 of the following [https://www.ccactuaries.org/docs/default-source/papers/cca-ppc\\_actuarial-funding-policies-and-practices-for-public-pension-plans.pdf](https://www.ccactuaries.org/docs/default-source/papers/cca-ppc_actuarial-funding-policies-and-practices-for-public-pension-plans.pdf) - denotes the policy being used is an acceptable policy.

Almost all Public Sector Retirement Systems in the United States use asset valuation methods to alleviate contribution volatility. The use of a four- or five-year period is most common.

A detailed summary of the actuarial assumptions and methods is provided in Appendix C.

# Valuation input

## Amortization method

Membership Data

Asset Data

Benefit Provisions

Assumptions

Funding Methodology

The Funding Methodology is the payment plan for LGERS and is composed of the Actuarial Cost Method, the Asset Valuation Method and Amortization Method.

- Amortization Methods determine the payment schedule for unfunded actuarial accrued liability (i.e., the difference between the actuarial accrued liability and actuarial value of assets)
  - Payment level: the payment is determined as a level dollar amount, like a mortgage payment
  - Payment period: a 12-year closed amortization period was adopted for fiscal year ending 2018. A new amortization base is created each year based on the prior years' experience.
- For fiscal years beginning after January 1, 2017, the sum of the "normal contribution" and the "accrued liability contribution" shall not be less than the employee contribution.

Page 26 of the following [https://www.ccactuaries.org/docs/default-source/papers/cca-ppc\\_actuarial-funding-policies-and-practices-for-public-pension-plans.pdf](https://www.ccactuaries.org/docs/default-source/papers/cca-ppc_actuarial-funding-policies-and-practices-for-public-pension-plans.pdf) - suggests the Amortization Method is an acceptable practice.

When compared to other Public Sector Retirement Systems in the United States, the Amortization Method results in higher pension debt payments. This is because of:

- A shorter period of 12 years compared to a national average of 21\*
- Level dollar payments instead of payments designed to increase, which is more typical in the Public Sector

\* NASRA, April 2022, *Overview of Public Pension Plan Amortization Policies*

A detailed summary of the actuarial assumptions and methods is provided in Appendix C.

# Valuation results

## Actuarial value of assets

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
---------------------------	-----------------------------	----------------------------	--------------	------------------------

The table below provides the calculation of the Actuarial Value of Assets (AVA) at the valuation date.

Asset data as of	12/31/2022
Beginning of year actuarial value of assets	\$ 31,643,208,176
Beginning of year market value of assets	33,459,926,149
Total contributions and court costs	1,459,402,904
Benefit payments, refunds and administrative expenses	<u>(1,818,632,359)</u>
Net cash flow	(359,229,455)
Expected investment return	2,163,404,034
Expected end of year market value of assets	35,264,100,728
End of year market value of assets	\$ 29,655,407,814
Excess market value over expected market value of assets	(5,608,692,914)
80% of 2022 asset gain/(loss)	(4,486,954,331)
60% of 2021 asset gain/(loss)	582,208,896
40% of 2020 asset gain/(loss)	464,095,116
20% of 2019 asset gain/(loss)	<u>388,085,676</u>
Total deferred asset gain/(loss)	(3,052,564,643)
Preliminary end of year actuarial value of assets	32,707,972,457
Final end of year actuarial value of assets (not less than 80% and not greater than 120% of market value)	\$ 32,707,972,457
Estimated net investment return on actuarial value	4.53%

The actuarial value of assets smooths investment gains/losses, resulting in less volatility in the employer contribution.

The asset valuation recognizes asset returns in excess of or less than the expected return on the market value of assets over a five-year period.

Lower than expected market returns in 2022 resulted in an actuarial value of asset return for calendar year 2022 of 4.53% and a recognized actuarial asset loss of \$621 million during 2022.

Even after recognizing this gain, the assets at actuarial value were \$4.4 billion less than the actuarial accrued liability as of December 31, 2022.

A detailed summary of the Actuarial Value of Assets is provided in Section 3.

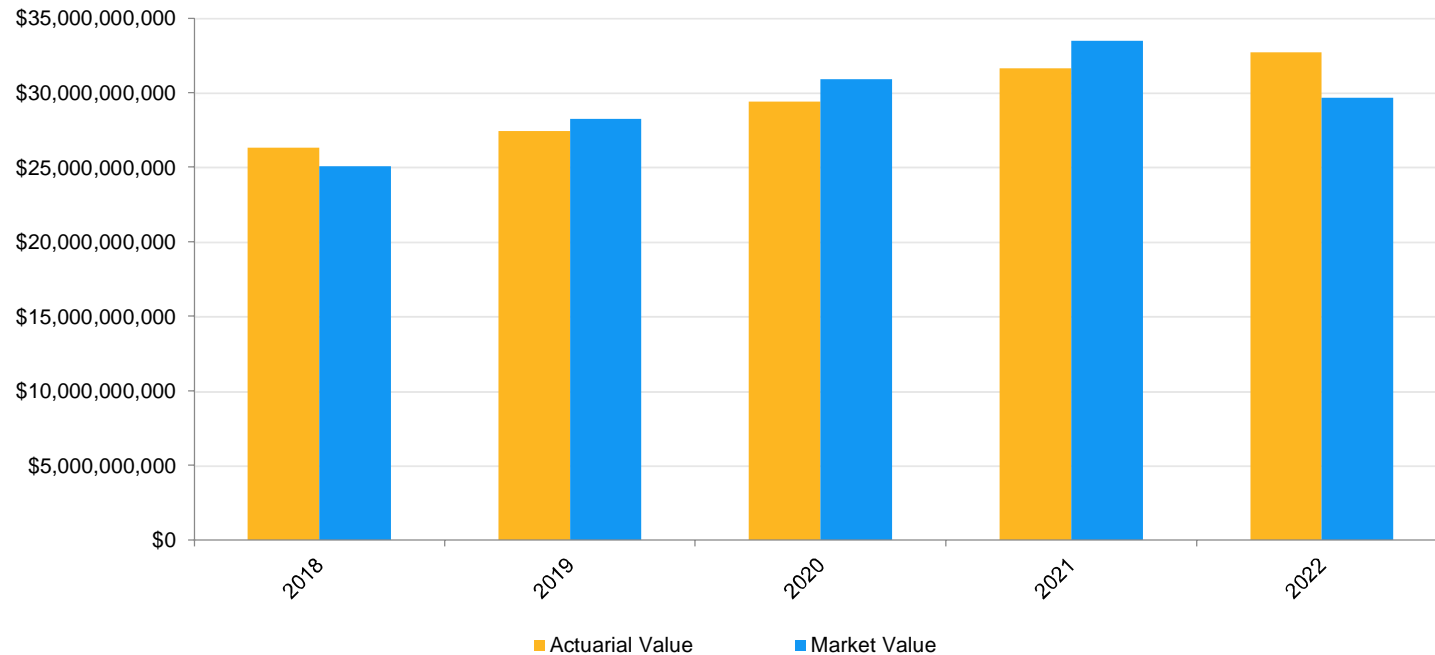


# Valuation results

## Comparison to market values

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
---------------------------	-----------------------------	----------------------------	--------------	------------------------

The graph below provides a history of the market value and actuarial value of assets over the past five years.



The market value of assets is lower than the actuarial value of assets which is used to determine employer contributions.

This indicates that overall, there are unrecognized asset losses to be recognized in future valuations.

In fact, if the investments earn the expected 6.50% per year over the next four years, a loss will be recognized each of those years.

A detailed summary of the Actuarial Value of Assets is provided in Section 3.

# Valuation results

## Comparison to market returns

Actuarial Value of Assets		Actuarial Accrued Liability		Net Actuarial Gain or Loss		Funded Ratio		Employer Contributions	
Calendar Year	Expected Asset Return	Actuarial Value of Asset Return	Market Value of Asset Return	20 Year Average Market Return					
2003	7.25%	8.52%	18.63%	N/A					
2004	7.25%	9.00%	10.77%	N/A					
2005	7.25%	8.58%	7.00%	N/A					
2006	7.25%	9.19%	11.41%	N/A					
2007	7.25%	9.03%	8.36%	N/A					
2008	7.25%	2.97%	-19.47%	N/A					
2009	7.25%	4.92%	14.94%	N/A					
2010	7.25%	6.10%	11.53%	N/A					
2011	7.25%	5.33%	2.14%	N/A					
2012	7.25%	6.51%	11.79%	N/A					
2013	7.25%	7.61%	12.21%	N/A					
2014	7.25%	7.32%	6.19%	N/A					
2015	7.25%	5.87%	0.34%	6.93%					
2016	7.25%	5.34%	6.22%	6.78%					
2017	7.20%	6.59%	13.47%	6.57%					
2018	7.00%	5.13%	-1.41%	5.67%					
2019	7.00%	6.23%	14.83%	5.90%					
2020	7.00%	8.79%	11.14%	6.32%					
2021	6.50%	9.14%	9.66%	6.91%					
2022	6.50%	4.53%	-10.35%	6.56%					
20-Year Average	7.13%	6.82%	6.56%	N/A					
20-Year Range	0.75%	6.22%	38.10%	N/A					

The average investment return recognized for purposes of determining the annual change in contribution each year is the actuarial value of assets return.

Currently, the average actuarial return over the past 20 years of 6.82% compares with an average market return of 6.56%.

The range of returns on market value of assets is markedly more volatile, 38.10% versus 6.22%.

Using the actuarial value of assets versus market value results in much lower employer contribution volatility, while ensuring that the actuarial needs of LGERS are met.

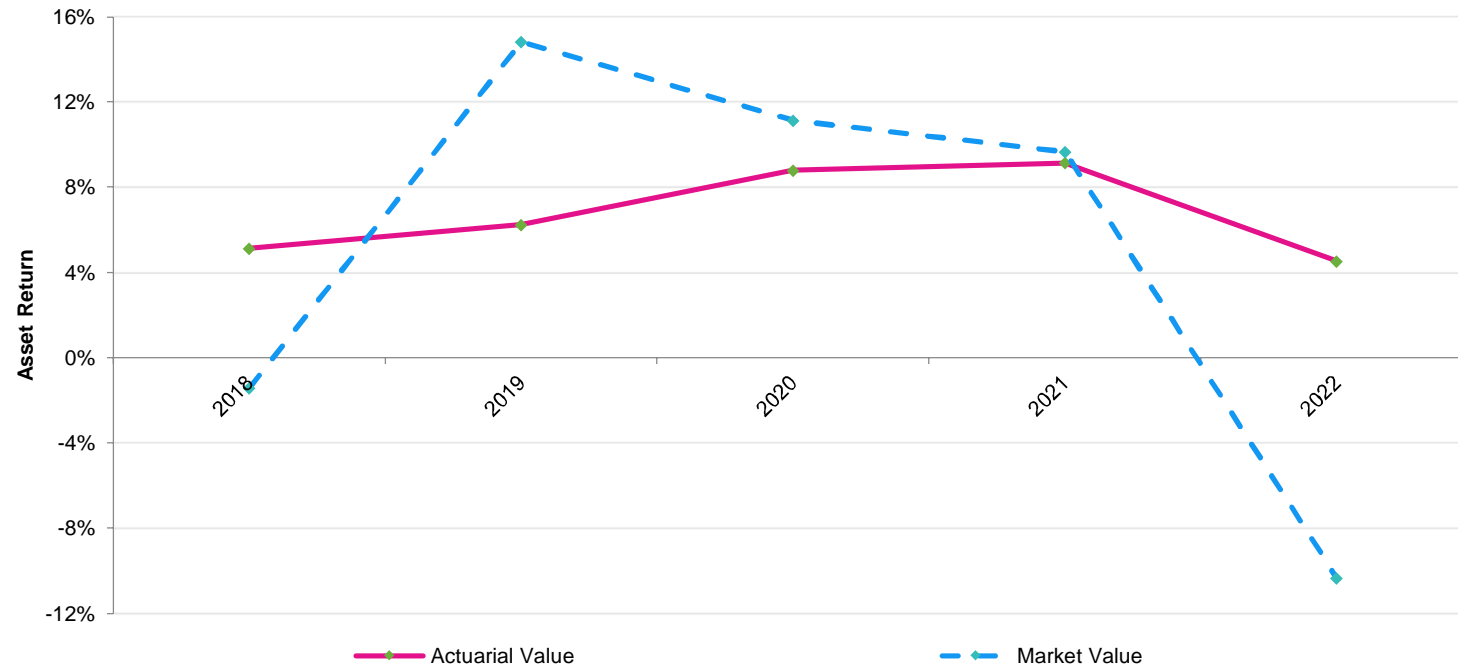
A detailed summary of the Actuarial Value of Assets is provided in Section 3.

# Valuation results

## Five-year return history

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
---------------------------	-----------------------------	----------------------------	--------------	------------------------

The graph below provides a history of the market value and actuarial value of assets over the past five years.



The investment return for the market value of assets for calendar year 2022 was (10.35)%.

The actuarial value of assets smooths investment gains and losses.

Lower than expected market returns in 2022 resulted in an actuarial value of asset return for calendar year 2022 of 4.53% and a recognized actuarial asset loss of \$621 million during 2022.

After recognizing this loss, the assets at actuarial value were \$4.4 billion less than the actuarial accrued liability as of December 31, 2022.

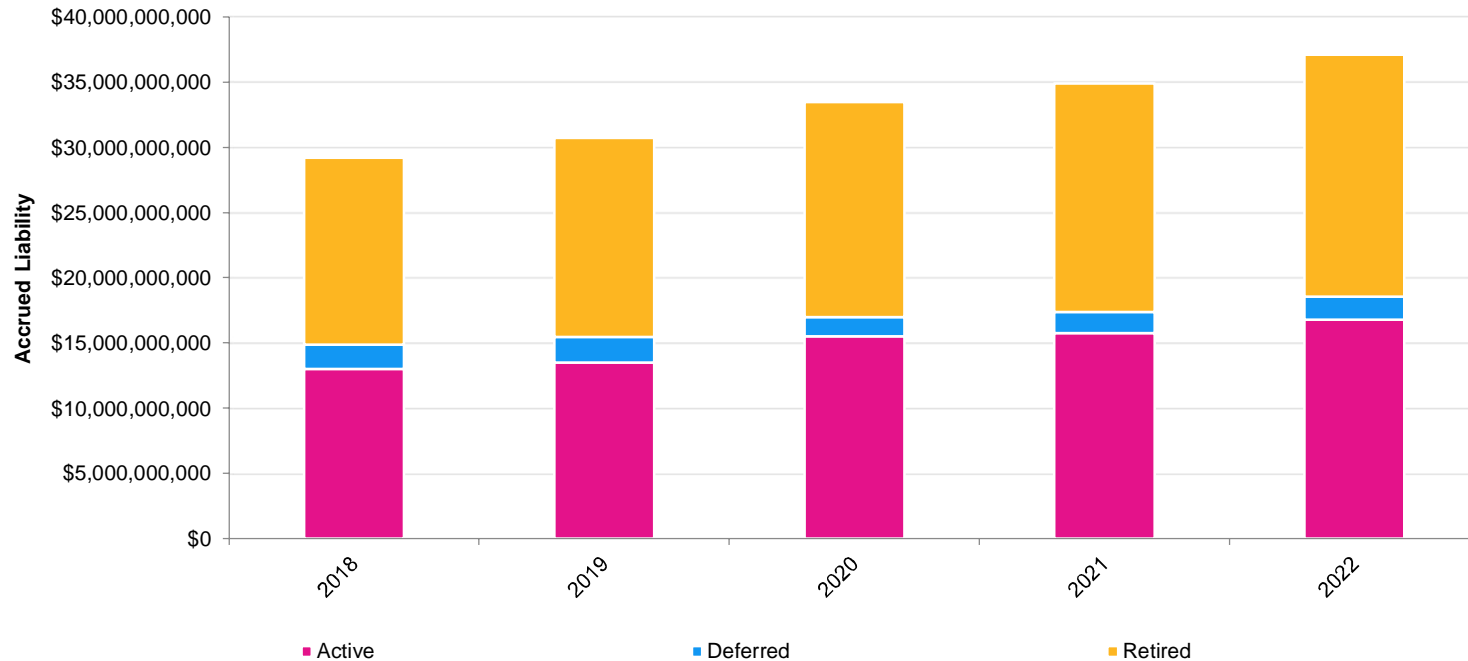
A detailed summary of the Actuarial Value of Assets is provided in Section 3.

# Valuation results

## Actuarial accrued liability

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
---------------------------	-----------------------------	----------------------------	--------------	------------------------

The graph below provides a history of the actuarial accrued liability (AAL) over the past five years.



The AAL increased from \$34.9 billion to \$37.1 billion during 2022.

LGERS is an open plan, which means that new members enter the plan each year.

In an open plan, liabilities are expected to grow from one year to the next as more benefits accrue and the membership approaches retirement.

The AAL was \$862 million higher than expected, resulting primarily from higher than expected pay increases.

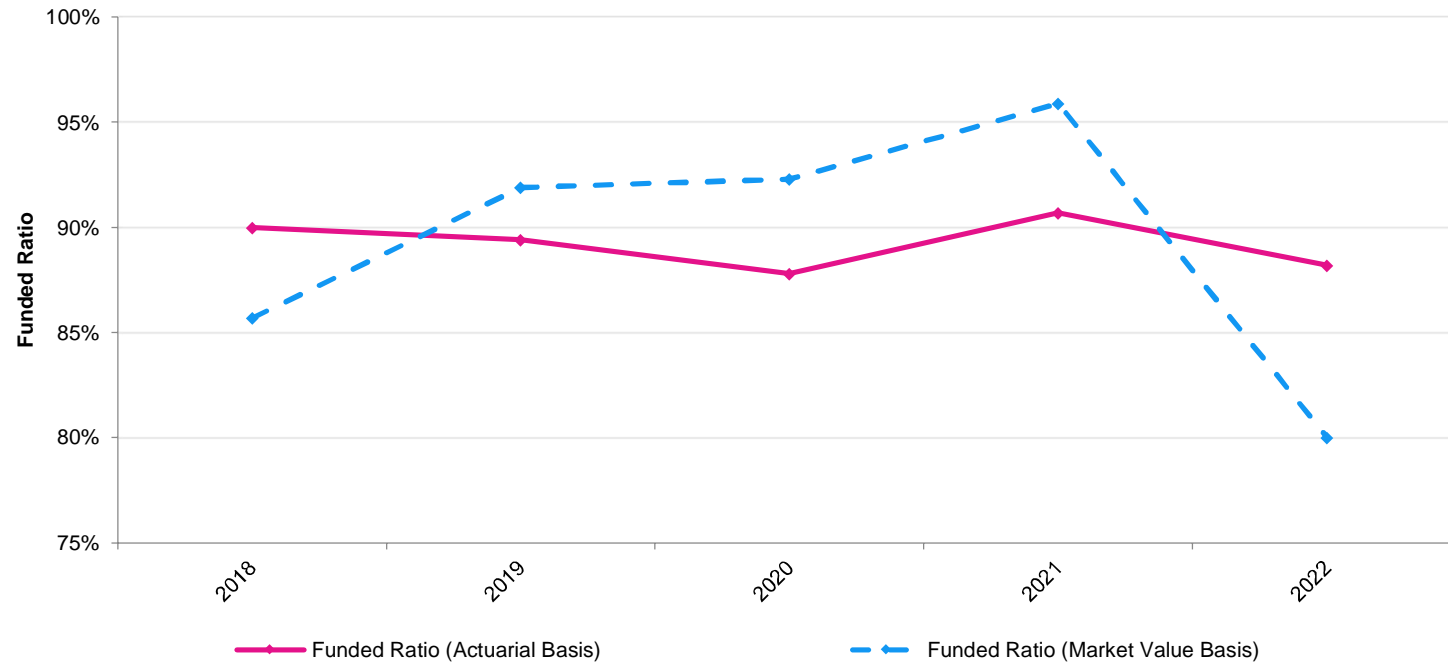
A detailed summary of the Actuarial Accrued Liability is provided in Section 4.

# Valuation results

## Funded ratio

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	<b>Funded Ratio</b>	Employer Contributions
---------------------------	-----------------------------	----------------------------	---------------------	------------------------

The graph below provides a history of the funded ratio on a market and actuarial basis over the past five years.



The ratio of assets to liabilities shows the health of the plan on an accrued basis.

The actuarial value of assets basis is used for computing contributions to alleviate contribution volatility.

The funded ratio on an actuarial basis decreased from 90.7% as of December 31, 2021, to 88.2% as of December 31, 2022.

The decrease was primarily due to asset and demographic experience losses.

A detailed summary of the funded ratio is provided in Section 4.

# Valuation results

## ECRSP

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
---------------------------	-----------------------------	----------------------------	--------------	------------------------

- The Employer Contribution Rate Stabilization Policy (ECRSP) adopted by the Board of Trustees on April 29, 2021, and amended on January 27, 2022, requires that recommended contributions for general employees be set at 11.35% of payroll for fiscal year ending 2022 and will increase each fiscal year by 0.75% per year, with adjustments for the impact of any benefit or assumption changes that were made and not incorporated in the previous scheduled rate (other than the one-time supplement authorized by the Board under G.S. 128-27(k1) for the fiscal year ending in 2023), with the following additional adjustments, if applicable:
  - If the underlying actuarially determined employer contribution rate (ADEC) for a given fiscal year exceeds the adjusted scheduled employer contribution rate for that fiscal year by more than 1.00% of compensation, an increase equal to 50% of the difference is added to the adjusted scheduled employer contribution rate for the current and future fiscal years.
  - Beginning July 1, 2024, if the adjusted scheduled employer contribution rate for that fiscal year exceeds the underlying actuarially determined employer contribution rate (ADEC) for a given fiscal year by more than 1.00% of compensation, a decrease equal to 50% of the difference, but not greater than 1.50% of compensation, is subtracted from the adjusted scheduled employer contribution rate for the current and future fiscal years.
- Contribution rates for law enforcement officers will be 1.00% higher than contribution rates for general employees for fiscal year 2023. The 1.00% difference will increase by 0.25% each year until fiscal year 2027, when the contribution rates for law enforcement officers will be 2.00% higher than the contribution rates for general employees.

# Valuation results

## General employees and firefighters

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
---------------------------	-----------------------------	----------------------------	--------------	------------------------

The table below provides a history of the actuarially determined employer contribution and the corresponding actual rate for General Employees and Firefighters.

Valuation Date	Rate Effective	Preliminary ADEC	Benefit Changes*	Final ADEC	Actual Contribution
12/31/2022	7/1/2024	12.66%	N/A	N/A	N/A
12/31/2021	7/1/2023	10.43%	0.00%	10.43%	12.85%
12/31/2020	7/1/2022	11.22%	0.44%	11.66%	12.10%
12/31/2019	7/1/2021	11.27%	0.00%	11.27%	11.35%
12/31/2018	7/1/2020	10.24%	0.00%	10.24%	10.15%
12/31/2017	7/1/2019	8.56%	0.00%	8.56%	8.95%

\* The benefit change for the contribution for fiscal year ending June 30, 2023, provided for a one-time supplement payment equal to 2% of the member's annual retirement allowance, payable in October 2022.

The funding policy contribution rate for fiscal year ending 2025 is 13.60% of payroll. The preliminary ADEC for fiscal year ending 2025 is 12.66% of payroll.

A detailed summary of the actuarially determined employer contribution rates is provided in Section 5.

# Valuation results

## Law enforcement officers

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
---------------------------	-----------------------------	----------------------------	--------------	------------------------

The table below provides a history of the actuarially determined employer contribution and the corresponding actual rate for Law Enforcement Officers.

Valuation Date	Rate Effective	Preliminary ADEC	Benefit Changes*	Final ADEC	Actual Contribution
12/31/2022	7/1/2024	14.69%	N/A	N/A	N/A
12/31/2021	7/1/2023	12.39%	0.00%	12.39%	14.10%
12/31/2020	7/1/2022	13.00%	0.44%	13.44%	13.10%
12/31/2019	7/1/2021	12.94%	0.00%	12.94%	12.10%
12/31/2018	7/1/2020	11.92%	0.00%	11.92%	10.90%
12/31/2017	7/1/2019	10.22%	0.00%	10.22%	9.70%

\* The benefit change for the contribution for fiscal year ending June 30, 2023, provided for a one-time supplement payment equal to 2% of the member's annual retirement allowance, payable in October 2022.

The funding policy contribution rate for fiscal year ending 2025 is 15.10% of payroll. The preliminary ADEC for fiscal year ending 2025 is 14.69% of payroll.

A detailed summary of the actuarially determined employer contribution rates is provided in Section 5.



# Valuation results

## ADEC and ECRSP history

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
---------------------------	-----------------------------	----------------------------	--------------	------------------------

The table below provides a history of the ADEC and ECRSP contributions for both General Employees and Firefighters as well as Law Enforcement Officers in LGERS.

Valuation Date	Rate Effective	General Employees and Firefighters			Law Enforcement Officers		
		ADEC	ECRSP	Excess / (Shortfall)	ADEC	ECRSP	Excess / (Shortfall)
12/31/2022	07/01/2024	12.66%	13.60%	0.94%	14.69%	15.10%	0.41%
12/31/2021	07/01/2023	10.43%	12.85%	2.42%	12.39%	14.10%	1.71%
12/31/2020	07/01/2022	11.66%	12.10%	0.44%	13.44%	13.10%	(0.34%)
12/31/2019	07/01/2021	11.27%	11.35%	0.08%	12.94%	12.10%	(0.84%)
12/31/2018	07/01/2020	10.24%	10.15%	(0.09%)	11.92%	10.90%	(1.02%)
12/31/2017	07/01/2019	8.56%	8.95%	0.39%	10.22%	9.70%	(0.52%)

# Valuation results

## Additional disclosures

### Benefit Enhancements

### Additional Disclosures

### Projections

The table below illustrates the sensitivity of certain valuation results to changes in the discount rate on a market value of assets basis. All numbers are rounded to the billions\*.

Discount Rate	3.97%	5.24%	6.50%	7.77%	9.03%
Market Value of Assets	\$ 29.66	\$ 29.66	\$ 29.66	\$ 29.66	\$ 29.66
Actuarial Accrued Liability	\$ 51.38	\$ 43.28	\$ 37.09	\$ 32.21	\$ 28.36
Unfunded Accrued Liability (AAL)	\$ 21.73	\$ 13.62	\$ 7.43	\$ 2.56	\$ (1.29)
Funded Ratio	57.7%	68.5%	80.0%	92.1%	104.5%
20-Year Amortization of UAL	\$ 1.66	\$ 1.17	\$ 0.72	\$ 0.28	N/A
(as % of general state revenue)	7.6%	5.4%	3.3%	1.3%	N/A

\*Numbers may not add due to rounding.

A detailed summary of the additional disclosures is provided in Appendix D.

Section 6(c) of Session Law 2016-108 requires that the actuarial valuation report provide the valuation results using a 30-year Treasury rate as of December 31 of the year of the valuation as the discount rate.

The 30-year Treasury rate is 3.97% as of December 31, 2022.

The difference between the UAAL measured at 6.50% and 3.97% is \$14.3 billion at December 31, 2022.

# Valuation results

## Additional disclosures

### Benefit Enhancements

### Additional Disclosures

### Projections

The table below provides an estimate of future market value of asset returns based on the study commissioned by the DST Investment Management Division and presented by Callan to the Investment Advisory Committee on February 23, 2022.

Horizon	95% Chance (19 out of every 20 scenarios)	75% Chance (3 out of every 4 scenarios)	50% Chance (1 out of every 2 scenarios)	25% Chance (1 out of every 4 scenarios)	5% Chance (1 out of every 20 scenarios)
10 Years (2032)	0.4%	3.6%	5.7%	7.8%	11.1%
30 Years (2052)	3.3%	5.1%	6.3%	7.6%	9.3%

These results are summarized in the “NCRS Investment Policy Statement Review” presentation prepared by the DST Investment Management Division and dated May 25, 2022.

Based on the study, the lower bound of 3.97% returns is between 75% to 95% likely to be achieved on average over the next 30 years, while the upper bound of 9.03% is more than 5% likely to be achieved on average over the next 30 years.

A detailed summary of the additional disclosures is provided in Appendix D.

# Appendix II

## Data for Graphs

# Valuation input

## Actives

Membership Data

Asset Data

Benefit Provisions

Assumptions

Funding Methodology

### Active Members

	Active Member Count	Reported Compensation
2018	129,986	\$ 6,225,257,140
2019	132,058	6,488,881,575
2020	132,397	6,846,115,903
2021	132,235	6,898,855,515
2022	135,706	7,526,815,916

# Valuation input

## Historical market value and returns

Membership Data

Asset Data

Benefit Provisions

Assumptions

Funding Methodology

### Market Value of Assets and Asset Return

	Market Value of Assets	Asset Return
2018	\$ 25,045,130,611	-1.41%
2019	28,224,698,297	14.83%
2020	30,905,570,910	11.14%
2021	33,459,926,149	9.66%
2022	29,655,407,814	-10.35%

# Valuation results

## Actuarial value of assets / actuarial accrued liability

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
---------------------------	-----------------------------	----------------------------	--------------	------------------------

### Actuarial Accrued Liability and Actuarial Value of Assets

	Actuarial Accrued Liability	Actuarial Value of Assets
2018	\$ 29,223,126,652	\$ 26,307,348,445
2019	\$ 30,700,921,303	\$ 27,435,046,235
2020	\$ 33,485,232,590	\$ 29,387,655,709
2021	\$ 34,884,123,410	\$ 31,643,208,176
2022	\$ 37,089,528,129	\$ 32,707,972,457

# Valuation results

## Rates prior to application of ECRSP

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
---------------------------	-----------------------------	----------------------------	--------------	------------------------

### Actuarially Determined Employer Contribution Rates

Fiscal Year Ending	General Employees and Firefighters	Law Enforcement Officers
2021	10.24%	11.92%
2022	11.27%	12.94%
2023	11.66%	13.44%
2024	10.43%	12.39%
2025	12.66%	14.69%

\* Subject to the impact of future legislative changes during that fiscal year



# Valuation results

## Projected contribution rates

Benefit Enhancements

Additional Disclosures

Projections

### Projected Actuarially Determined Employer Contribution Rates General and Fire

	Alternate #1 (0.0% 2022 Return)	Baseline Projection	Alternate #2 (13.0% 2022 Return)
2025	12.66%	12.66%	12.66%
2026	13.90%	13.32%	12.74%
2027	16.33%	15.04%	13.76%
2028	18.39%	16.45%	14.50%
2029	20.54%	18.01%	15.39%
2030	19.89%	16.83%	13.63%
2031	18.94%	15.94%	12.81%
2032	17.36%	14.42%	11.36%
2033	16.20%	13.33%	10.34%
2034	15.47%	12.67%	9.75%
2035	14.05%	11.32%	8.47%
2036	14.66%	11.99%	9.21%
2037	12.66%	10.07%	7.36%
2038	11.81%	9.73%	7.54%
2039	10.06%	8.59%	7.01%
2040	8.16%	7.25%	6.23%

# Valuation results

## Projected contribution rates

Benefit Enhancements

Additional Disclosures

Projections

### Projected Actuarially Determined Employer Contribution Rates Law Enforcement Officers

	Alternate #1 (0.0% 2022 Return)	Baseline Projection	Alternate #2 (13.0% 2022 Return)
2025	14.69%	14.69%	14.69%
2026	16.09%	15.51%	14.93%
2027	18.68%	17.39%	16.11%
2028	20.74%	18.80%	16.85%
2029	22.88%	20.35%	17.73%
2030	22.23%	19.17%	15.97%
2031	21.26%	18.26%	15.13%
2032	19.66%	16.72%	13.66%
2033	18.49%	15.62%	12.63%
2034	17.75%	14.95%	12.03%
2035	16.31%	13.58%	10.73%
2036	16.92%	14.25%	11.47%
2037	14.91%	12.32%	9.61%
2038	14.05%	11.97%	9.78%
2039	12.30%	10.83%	9.25%
2040	10.39%	9.48%	8.46%

# Valuation results

## Projected funded ratio

Benefit Enhancements

Additional Disclosures

Projections

### Projected Funded Ratio

	Alternate #1 (0.0% 2022 Return)	Baseline Projection	Alternate #2 (13.0% 2022 Return)
2022	88.2%	88.2%	88.2%
2023	87.8%	88.8%	89.8%
2024	85.5%	87.7%	90.0%
2025	83.0%	86.4%	89.8%
2026	80.5%	84.8%	89.3%
2027	81.2%	86.3%	91.5%
2028	83.4%	88.1%	93.0%
2029	85.6%	89.9%	94.5%
2030	87.8%	91.6%	95.7%
2031	89.7%	93.1%	96.7%
2032	91.4%	94.4%	97.4%
2033	93.1%	95.6%	98.2%
2034	94.6%	96.7%	98.8%
2035	96.1%	97.7%	99.3%
2036	97.5%	98.6%	99.8%
2037	98.7%	99.4%	100.1%

# Valuation input

## Retirees and survivors receiving benefits

Membership Data

Asset Data

Benefit Provisions

Assumptions

Funding Methodology

### Retired Members and Survivors of Deceased Members

	Retired and Survivors of Deceased Member Count	Retirement Allowance
2018	72,087	\$ 1,400,113,021
2019	75,002	1,479,483,328
2020	77,556	1,553,600,690
2021	79,318	1,633,119,207
2022	82,466	1,728,906,067

# Valuation results

## Comparison to market values

Actuarial Value of Assets

Actuarial Accrued Liability

Net Actuarial Gain or Loss

Funded Ratio

Employer Contributions

### Actuarial Value and Market Value of Assets

	<b>Actuarial Value of Assets</b>	<b>Market Value of Assets</b>
2018	\$ 26,307,348,445	\$ 25,045,130,611
2019	27,435,046,235	28,224,698,297
2020	29,387,655,709	30,905,570,910
2021	31,643,208,176	33,459,926,149
2022	32,707,972,457	29,655,407,814

# Valuation results

## Five-year return history

Actuarial Value of Assets

Actuarial Accrued Liability

Net Actuarial Gain or Loss

Funded Ratio

Employer Contributions

### Asset Returns

	Actuarial Value Asset Return	Market Value Asset Return
2018	5.13%	-1.41%
2019	6.23%	14.83%
2020	8.79%	11.14%
2021	9.14%	9.66%
2022	4.53%	-10.35%

# Valuation results

## Actuarial accrued liability

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	Funded Ratio	Employer Contributions
---------------------------	-----------------------------	----------------------------	--------------	------------------------

### Actuarial Accrued Liability

	Liability for Active Members	Liability for Deferred Members	Liability for Retired Members	Total Liability
2018	\$ 13,007,988,139	\$ 1,835,817,327	\$ 14,379,321,186	\$ 29,223,126,652
2019	13,488,079,365	1,984,320,009	15,228,521,929	30,700,921,303
2020	15,515,656,027	1,442,127,239	16,527,449,324	33,485,232,590
2021	15,739,141,841	1,640,248,972	17,504,732,597	34,884,123,410
2022	16,787,571,602	1,773,584,693	18,528,371,834	37,089,528,129

# Valuation results

## Funded ratio

Actuarial Value of Assets	Actuarial Accrued Liability	Net Actuarial Gain or Loss	<b>Funded Ratio</b>	Employer Contributions
---------------------------	-----------------------------	----------------------------	---------------------	------------------------

### Funded Ratios

	<b>Funded Ratio (Actuarial Basis)</b>	<b>Funded Ratio (Market Value Basis)</b>
2018	90.0%	85.7%
2019	89.4%	91.9%
2020	87.8%	92.3%
2021	90.7%	95.9%
2022	88.2%	80.0%







# **North Carolina Local Governmental Employees' Retirement System**

Report on the Actuarial Valuation  
Prepared as of December 31, 2022

October 2023

October 13, 2023

Board of Trustees  
North Carolina Local Governmental  
Employees' Retirement System  
3200 Atlantic Avenue  
Raleigh, NC 27604

Members of the Board:

We submit herewith our report on the actuarial valuation of the North Carolina Local Governmental Employees' Retirement System (referred to as "LGERS" or the "Local Plan") prepared as of December 31, 2022. The report has been prepared in accordance with North Carolina General Statute 128-28(p). Information contained in our report for plan years from December 31, 2017, to December 31, 2020, is based on valuations performed by the prior actuarial firm.

The primary purpose of the valuation report is to determine the required member and employer contribution rates, to describe the current financial condition of LGERS, and to analyze changes in such condition. Use of this report for any other purposes or by anyone other than North Carolina Retirement Systems Division (RSD) or Department of State Treasurer staff may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. The attached pages should not be provided without a copy of this cover letter. Because of the risk of misinterpretation of actuarial results, you should ask Buck, A Gallagher Company (Buck) to review any statement you wish to make on the results contained in this report. Buck will not accept any liability for any such statement made without prior review.

The valuation is based upon membership data and financial information as furnished by RSD and the Financial Operations Division and as summarized in this report. Although we reviewed for reasonableness and consistency with the prior valuation, these elements have not been audited by Buck and we cannot certify as to the accuracy and completeness of the data supplied. Sometimes assumptions are made by Buck to interpret membership data that is imperfect. The valuation is also based on benefit and contribution provisions as presented in this report. If you have reason to believe that the plan provisions are incorrectly described that important plan provisions relevant to this valuation are not described, or that conditions have changed since the calculations were made, you should contact the authors of this actuarial report prior to relying on this information.

The valuation is further based on the actuarial valuation assumptions, approved by the Board of Trustees, as presented in this report. We believe that these assumptions are reasonable and comply with the Actuarial Standards of Practice ("ASOPs") 27 and 35. We prepared this valuation in accordance with the requirements of this standard and in accordance with all applicable ASOPs.

The assumptions used for the December 31, 2022 actuarial valuation are based on the experience study prepared as of December 31, 2019 and adopted by the Board of Trustees on January 28, 2021. All assumptions are discussed annually with the appropriate parties, and actuarial gain/loss experience is reviewed during each valuation, to see if any changes are needed. The economic assumptions with respect to investment yield, salary increase, and inflation have been based upon a review of the existing portfolio structure as well as recent and anticipated experience. All assumptions represent an estimate of future experience.

ASOPs 27 and 35 ask the actuary to disclose the information and analysis used to support the actuary's determination that the assumptions selected by the plan sponsor do not significantly conflict with what, in the actuary's professional judgment, are reasonable for the purpose of the measurement. In the case of the Board's selection of the investment return assumption, the signing actuaries have used economic information and tools provided by Buck's Financial Risk Management ("FRM") practice. A spreadsheet tool created by the FRM team converts averages, standard deviations, and correlations from Buck's Capital Markets Assumptions ("CMA") that are used for stochastic forecasting into approximate percentile ranges for the arithmetic and geometric average returns. It is intended to suggest possible reasonable ranges for the investment return assumption without attempting to predict or select a specific best estimate rate of return. It takes into account the duration (horizon) of investment and the target allocation of assets in the portfolio to various asset classes. Based on the actuaries' analysis, including consistency with other assumptions used in the valuation, the percentiles generated by the spreadsheet described above and review of actuarial gain/loss experience, the actuaries believe the assumptions, in the actuaries' professional judgment, are reasonable for the purpose of the measurement.

Where presented, references to "funded ratio" and "unfunded actuarial accrued liability" typically are measured on an actuarial value of assets basis. It should be noted that the same measurements using market value of assets would result in different funded ratios and unfunded accrued liabilities. Moreover, the funded ratio presented may be appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the plan if the plan were to settle (i.e., purchase annuities) for a portion or all of its liabilities. In various places in the report the results also show funded ratios and unfunded liabilities based upon varying sets of assumptions as well as market values of assets as that is required for certain disclosure information required per accounting rules or statutes. Where this has been done it has been clearly indicated.

Actuarial Standard of Practice No. 56 ("ASOP 56") provides guidance to actuaries when performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. In addition to the spreadsheet model discussed above, Buck uses third-party software in the performance of annual actuarial valuations and projections. The model is intended to calculate the liabilities associated with the provisions of the Plan using data and assumptions as of the measurement date under the accounting rules specified in this report. The output from the third-party vendor software is used as input to an internally developed model that applies applicable accounting rules to the liabilities derived and other inputs, such as Plan assets and contributions, to generate many of the exhibits found in this report. Buck has an extensive review process whereby the results of the liability calculations are checked using detailed sample output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other accounting outputs and the internal model are similarly reviewed in detail and at a high level for accuracy, reasonability, and consistency with prior results. Buck also reviews the third-party model when significant changes are made to the software. The review is performed by experts within the company who are familiar with applicable accounting rules as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed. Significant changes to the internal model that are applicable to multiple clients are generally developed, checked, and reviewed by multiple experts within the company who are familiar with the details of the required changes.

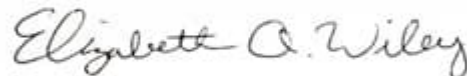
Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: fund experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law. Such changes in law may include additional costs resulting from future legislated benefit improvements or cost-of-living pension increases or supplements, which are not anticipated in the actuarial valuation. Because of limited scope, Buck performed no analysis of the potential range of such future differences, except for some limited analysis in financial projections or required disclosure information.

This report was prepared under our supervision and in accordance with all applicable Actuarial Standards of Practice. We are Fellows of the Society of Actuaries, Enrolled Actuaries, Members of the American Academy of Actuaries, and Fellows of the Conference of Consulting Actuaries. We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. We are available to discuss this report with you at your convenience.

Respectfully submitted,



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# Executive Summary

## Overview

The North Carolina Retirement Systems Division (RSD) was established in 1941 to provide retirement benefits for public servants in the State of North Carolina. Today, under the management of the Department of State Treasurer, RSD administers seven public pension plans (defined benefit plans), three supplemental retirement plans (voluntary defined contributions plans), a health trust fund, a disability income plan, death benefit funds and a number of other benefit programs. As of December 31, 2022, the RSD defined benefit plans cover over one million current and prior public servants of the state of North Carolina. During the fiscal year ending June 30, 2023, RSD paid over \$7.5 billion in pensions to more than 350,000 retirees. And as of June 30, 2023, RSD's defined benefit plan assets were valued at over \$114 billion.

Under the supplemental retirement plans, the amount of contributions in any given year is defined by law. The amount of benefits derived is dependent on the investment returns the individual achieves. Conversely, under the pension plans, the amount of the benefit paid to a member upon retirement, termination, death, or disability is defined by law. The amount of contributions needed to fund these benefits cannot be known with certainty. In North Carolina, like other states, these contributions are paid during a public servant's career so that upon retirement, termination, death, or disability, there are funds available to pay these benefits. These amounts are determined through an actuarial valuation. Actuarial valuations are performed for each of the pension plans administered by RSD and the results are contained in actuarial valuation reports like this.

The Local Governmental Employees' Retirement System (referred to as "LGERS" or the "Local Plan") was established in 1939 and began accepting participating employers in 1945. LGERS is maintained for the employees of cities, towns, counties, boards, commissions, and other entities of local government in North Carolina. LGERS has over \$29 billion in assets and about 320,000 members. This actuarial valuation report is our annual analysis of the financial health of LGERS. This report, prepared as of December 31, 2022, presents the results of the actuarial valuation of LGERS.

## Purpose

An actuarial valuation is performed on LGERS annually as of the end of the calendar year. The actuary determines the amount of contributions to be made to LGERS during each member's career that, when combined with investment return, will be sufficient to pay for retirement benefits.

In addition, the annual actuarial valuation is performed to:

- Determine the required contribution rates for LGERS employers,
- Explore why the results of the current valuation differ from the results of the valuation of the previous year,  
and
- Satisfy regulatory and accounting requirements.

A detailed summary of the valuation process and a glossary of actuarial terms are provided in the supplementary document, "State of North Carolina Retirement Systems Actuarial Valuation Report Process and Actuarial Terms Glossary" dated October 2023.



# Executive Summary (continued)

## Actuary's Comments and Other Observations

### Membership

As with any estimate, the actuary collects information that we know now. Under the actuarial valuation process, current information about LGERS members is collected annually by the Retirement Systems Division staff at the direction of the actuary. Membership data will assist the actuary in estimating benefits that could be paid in the future. Information about benefit provisions and assets held in the trust as of the valuation date is also collected.

The member information the actuary collects includes data elements such as current service, salary and benefit group identifier for members that have not separated service, and actual benefit amounts and form of payment for members that have separated service. Data elements such as gender and date of birth are used to determine when a benefit might be paid and for how long.

The table below provides a summary of the membership data used in this valuation compared to the prior valuation.

Number as of	12/31/2022	12/31/2021
Active Members	135,706	132,235
Terminated vested members and survivors of deceased members entitled to benefits but not yet receiving benefits	26,221	24,552
Terminated non-vested members and survivors of deceased members entitled to a refund of contributions	75,597	68,951
Retired members and survivors of deceased members currently receiving benefits	<u>82,466</u>	<u>79,318</u>
Total	319,990	305,026

The number of active members increased by 2.6% from the previous valuation date. The increase in the active population results in more benefits accruing, which will require more contributions supporting the system. The number of retired members and survivors of deceased members currently receiving benefits increased by 4.0% from the previous valuation date. The increase in retiree population is consistent with expectations.

Reported compensation for active members for the year ending December 31, 2022 was \$7.5 billion compared to \$6.9 billion in the prior year, an increase of 9.1%. Covered payroll was expected to increase annually by 3.25%. Payroll that is increasing faster than we assume results in more benefits accruing than we anticipate, but also more contributions supporting the system. Although the pay increases will ultimately lead to increases in the dollar amounts of contributions, the immediate effect on the December 31, 2022 actuarial valuation is a reduction in the funded ratio and an increase in required employer contribution rates compared to those anticipated in prior projections.

The number of retired members and survivors of deceased members and the benefits paid to these members has been increasing steadily, as expected based on plan assumptions.

A detailed summary of membership data can be found in Section 2 of this report.

# Executive Summary (continued)

## Assets

LGERS assets are held in trust and are invested for the exclusive benefit of plan members. The market value of assets is \$29.7 billion as of December 31, 2022 and \$33.5 billion as of December 31, 2021. The investment return for the market value of assets for calendar year 2022 was (10.35)%.

Market value returns during 2022 were lower than the 6.50% assumed rate of return, resulting in higher actuarially determined contributions and a lower funded ratio than anticipated in the December 31, 2021 baseline projections presented in the December 31, 2021 actuarial report.

The actuarial value of assets smooths investment gains and losses. The actuarial value of assets is \$32.7 billion as of December 31, 2022 and \$31.6 billion as of December 31, 2021. The market value of assets is less than the actuarial value of assets, which is used to determine employer contributions. This indicates that overall, there are unrecognized asset losses to be recognized in future valuations.

Lower than expected market returns in 2022, partially offset by higher than expected market returns in 2019, 2020, and 2021, resulted in an actuarial value of asset return for calendar year 2022 of 4.53% and a recognized actuarial asset loss of \$621 million during 2022. The assets at actuarial value were \$4.4 billion less than the actuarial accrued liability as of December 31, 2022.

Based on historical market returns, the current asset allocation, the current investment policy, and the expectation of future asset returns, as reviewed in the last experience study, the 6.50% discount rate used in this valuation is reasonable and appropriate.

A detailed summary of the market value of assets and actuarial value of assets are provided in Section 3 of this report.

## Benefit Provisions

Benefit provisions are described in North Carolina General Statutes, Chapter 128.

There were no significant changes in benefit provisions from the prior year's valuation.

Many Public Sector Retirement Systems in the United States have undergone pension reform where the benefits of members (active or future members) have been reduced. Because of the well-funded status of LGERS due to the legislature contributing at least the actuarially determined employer contribution on the basis of an actuarially sound funding policy, benefit cuts have not been needed in North Carolina as they have been in most other states. However, if North Carolina's investment policy shifts substantively, the system should review likely impacts of the shift and consider corresponding changes to actuarial assumptions, funding policy and/or benefit levels.

As noted previously, cost-of-living increases are periodically considered by the Board of Trustees to the extent that certain financial conditions are met. Specifically, benefit allowance increases are generally considered when the trust experiences sufficient investment gains to cover the additional actuarial accrued liabilities created by the cost-of-living adjustment (generally, limited to the lesser of the CPI increase year-over-year or 4%). In addition to employers consistently contributing the actuary's recommended contribution, this benefit increase policy has helped keep costs manageable when compared to other public sector retirement systems in the United States. That being said, it is important to provide a benefit in retirement that does not get eroded by inflation.

A detailed summary of the benefit provisions is provided in Appendix B of this report.

# Executive Summary (continued)

## Actuarial Assumptions

Actuarial assumptions bridge the gap between the information that we know with certainty as of the valuation date (age, gender, service, pay, and benefits of the members) and what may happen in the future. The actuarial assumptions of LGERS are reviewed at least every five years. Based on this review, the actuary will make recommendations on the demographic and economic assumptions.

Demographic assumptions describe future events that relate to people such as retirement rates, termination rates, disability rates, and mortality rates. Economic assumptions describe future events that relate to the assets of LGERS such as the interest rate, salary increases, the real return, and payroll growth.

The assumptions used for the December 31, 2022 actuarial valuation are based on the experience study prepared as of December 31, 2019 and adopted by the Board of Trustees on January 28, 2021. There were no material assumptions and methods that were changed since the prior valuation.

A detailed summary of actuarial assumptions can be found in Appendix C of this report.

## Funding Methodology

When compared to other Public Sector Retirement Systems in the United States, the funding policy for LGERS is quite aggressive in that the policy pays down the unfunded actuarial accrued liability over a much shorter period of time (12 years) compared to most other Public Sector Retirement Systems. As such it is a best practice in the industry.

The valuation reflects the change in methodology for determining liquidation of unfunded initial prior service accrued liability, approved by the Board of Trustees in January 2012. The outstanding balance of the unfunded initial prior service accrued liability and the date of liquidation of accrued liability will be estimated as of June 30 each year. These estimates must be recalculated annually and adjusted according to each employer's actual experience.

- Four (4) employers were granted relief at 7/1/2022.
- Five (5) employers were granted relief at 7/1/2023.

A detailed summary of actuarial methods can be found in Appendix C of this report.

## Liabilities

The Actuarial Accrued Liability (AAL) increased from \$34.9 billion to \$37.1 billion during 2022. LGERS is an open plan, which means that new members enter the plan each year. In an open plan, liabilities are expected to grow from one year to the next as more benefits accrue and the membership approaches retirement. The AAL was \$862 million higher than expected, resulting primarily from higher-than-expected pay increases for continuing active members.

A detailed summary of the AAL is provided in Section 4 of this report.

# Executive Summary (continued)

## Funded Ratio

The funded ratio is a measure of the progress that has been made in funding the plan as of the valuation date. It is the ratio of how much money LGERS actually has in the fund to the amount LGERS should have in the fund.

The ratio of assets to liabilities shows the health of the plan on an accrued basis. The funded ratio on an actuarial basis decreased from 90.7% as of December 31, 2021 to 88.2% as of December 31, 2022.

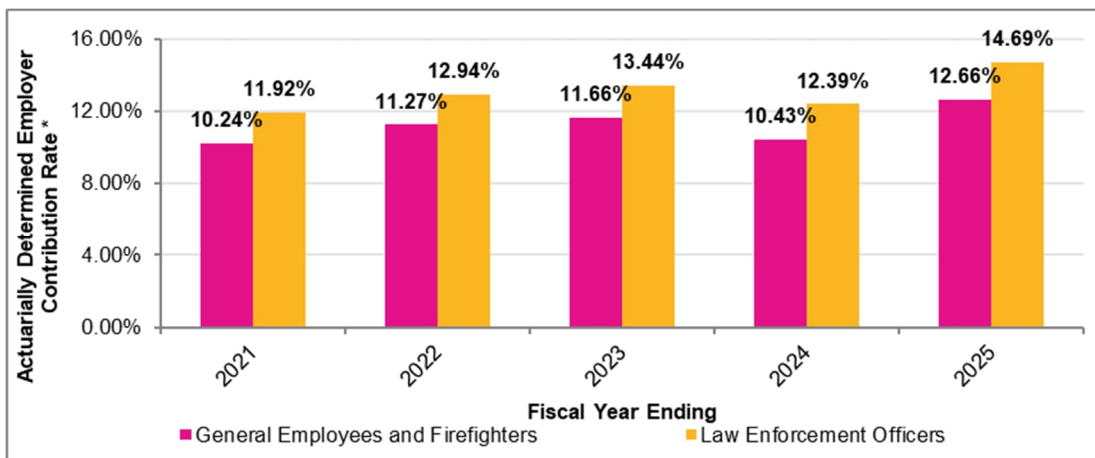
## Unfunded Actuarial Accrued Liability

The unfunded actuarial accrued liability (UAAL) is the portion of actuarial accrued liability that is not covered by the assets of the Retirement System. The actuarial value of assets basis is used for computing contributions to alleviate contribution volatility. The difference in the actuarial accrued liability and the actuarial value of assets is the amount of unfunded actuarial accrued liability to be paid off over a 12-year period.

The UAAL increased from \$3,241 million at December 31, 2021 to \$4,382 million at December 31, 2022. A detailed reconciliation of the UAAL can be found in Section 4 of the report.

## Contributions

The graph below provides a history of actuarially determined employer contribution rates prior to the application of the Employer Contribution Rate Stabilization Policy (ECRSP) over the past five years.



\* Subject to the impact of future legislative changes effective during that fiscal year

Actuarially determined employer contribution rates include amounts necessary to fund the cost of benefits accruing after reducing for member contributions of 6% of pay, and to pay off the unfunded liability over a 12-year period. The 12-year period is a relatively short period for Public Sector Retirement Systems in the United States, with most Systems using a longer period to pay off unfunded pension liabilities. The shorter period results in higher contributions and more benefit security.

These contribution rates do not include an employer's additional initial contribution for unfunded prior service cost accrued liability. In addition, the actual contributions under the ECRSP are not necessarily equal to the ADEC.

A detailed summary of the actuarially determined employer contribution rates is provided in Section 5 of this report. The ECRSP policy can be found in Appendix H.

# Executive Summary (continued)

## Projections

Projections of contribution requirements and funded status into the future can be helpful planning tools for stakeholders. The projections of the actuarial valuation are known as deterministic projections. Deterministic projections are based on one scenario in the future. The baseline deterministic projection is based on December 31, 2022 valuation results and assumptions.

A detailed summary of the deterministic projections can be found in Section 6 of this report.

## Risk

Measuring pension obligations and actuarially determined contributions requires the use of assumptions regarding future economic and demographic experience. Whenever assumptions are made about future events, there is risk that actual experience will differ from expected. Actuarial valuations include the risk that actual future measurements will deviate from expected future measurements due to actual experience that is different than the actuarial assumptions.

The primary areas of risk in this actuarial valuation are:

- Investment Risk – the potential that investment returns will be different than expected. Section 6 of this report demonstrates the sensitivity of future projected results to asset returns deviating from expected returns.
- Longevity and Other Demographic Risks – the potential that mortality or other demographic experience will be different than expected.
- Interest Rate Risk – To the extent market rates of interest affect the expected return on assets, there is a risk of change to the discount rate which determines the present value of liabilities and actuarial valuation results. Table D-1 of this report demonstrates the sensitivity of valuation results to differing discount rates.
- Contribution Risk – The potential that actual contributions are different than the actuarially determined contributions.

Annual actuarial valuations are performed for RSD which re-measure the assets and liabilities and compute a new actuarially determined contribution. RSD also has experience studies performed every five years to analyze the discrepancies between actuarial assumptions and actual experience and determine if the actuarial assumptions need to be changed. Annual actuarial valuations and periodic experience studies are practical ways to monitor and reassess risk.

# Executive Summary (continued)

## Key Takeaways

The actuarial valuation is performed each year to replace the estimates the actuary assumed for the prior valuation with the actual events that happened. This past year, as expected, some of the assumptions used in the prior valuation were not realized. Key results of the December 31, 2022 valuation as compared to the December 31, 2021 valuation were:

- \* Market value returns of (10.35)% during calendar year 2022 compared to 6.50% assumed
- \* Liabilities \$862 million higher than anticipated as of December 31, 2022, primarily from higher-than-expected salary increases for continuing active members
- \* Continuation of direct-rate smoothing of the change in the employer contribution rate due to the changes in assumptions and methods over a 5-year period beginning with the December 31, 2020 valuation

When compared to the December 31, 2021 projections, the above resulted in:

- \* A lower funded ratio as of December 31, 2022 (88.2% in the valuation compared to 93.1% in the baseline projection)
- \* Higher actuarially determined employer contribution rates for fiscal year ending June 30, 2025
  - 12.66% in the valuation compared to 10.14% in the baseline projection for general employees and firefighters
  - 14.69% in the valuation compared to 12.26% in the baseline projection for law enforcement officers
- \* Actuarially determined employer contribution rates are less than Employer Contribution Rate Stabilization Policy (ECRSP) rates for general employees and firefighters as well as for law enforcement officers
  - General Employees/Firefighter ECRSP of 13.60% vs. ADEC of 12.66%
  - Law Enforcement Officer ECRSP of 15.10% vs. ADEC of 14.69%

LGERS is well funded compared to its peers. This is due to:

- \* Stakeholders working together to keep LGERS well-funded since inception
- \* A history of contributing the recommended contribution requirements
- \* Assumptions that in aggregate are more conservative than peers
- \* A funding policy that aggressively adjusts contribution rates to pay down unfunded liability
- \* An ad hoc cost-of-living adjustment, which typically only provides benefit increases when certain financial conditions are met, that supports the health of the system
- \* Modest changes in benefits when compared to peers

Continued focus on these measures will be needed to maintain the solid status of LGERS well into the future.

This report, prepared as of December 31, 2022, presents the results of the annual valuation of the system. The principal results of the valuation and a comparison with the preceding year's results are summarized in the following table.

# Section 1: Principal Results

This report, prepared as of December 31, 2022, presents the results of the annual valuation of the system. The principal results of the valuation and a comparison with the preceding year's results are summarized below.

**Table 1: Summary of Principal Results**

Valuation results as of	12/31/2022	12/31/2021
Active Members		
Number	135,706	132,235
Reported Compensation	\$ 7,526,815,916	\$ 6,898,855,515
Valuation Compensation*	\$ 8,291,648,614	\$ 7,549,539,124
Retired Members and Survivors of Deceased Members Currently Receiving Benefits		
Number	82,466	79,318
Annual Allowances	\$ 1,728,906,067	\$ 1,633,119,207
Number of Participating Employers	896	897
Assets		
Actuarial Value (AVA)	\$ 32,707,972,457	\$ 31,643,208,176
Market Value	\$ 29,655,407,814	\$ 33,459,926,149
Actuarial Accrued Liability (AAL)	\$ 37,089,528,129	\$ 34,884,123,410
Unfunded Actuarial Accrued Liability (AAL-AVA)	\$ 4,381,555,672	\$ 3,240,915,234
Funded Ratio (AVA/AAL)**	88.2%	90.7%
Unfunded Initial Prior Service Liability	\$ 7,628,212	\$ 10,095,092

\* Reported compensation annualized for new hires and projected for valuation purposes.

\*\* The Funded Ratio on a Market Value of Assets basis is 80.0% as of December 31, 2022.

## Section 1: Principal Results (continued)

This report, prepared as of December 31, 2022, presents the results of the annual valuation of the system. The principal results of the valuation and a comparison with the preceding year's results are continued below.

Valuation results as of	12/31/2022	12/31/2021
Results for Fiscal Year Ending	6/30/2025	6/30/2024
Actuarially Determined Employer Contribution (ADEC), as a percentage of payroll		
General Employees and Firefighters		
Normal Cost	6.41%	6.46%
Accrued Liability	<u>7.45%</u>	<u>5.77%</u>
Total Preliminary ADEC	13.86%	12.23%
Total Based on Direct Rate Smoothing	12.66%	10.43%
Impact of Benefit Changes	<u>N/A</u>	<u>N/A</u>
Final ADEC	12.66%	10.43%
Law Enforcement Officers		
Normal Cost	8.74%	8.88%
Accrued Liability	<u>7.45%</u>	<u>5.77%</u>
Total	16.19%	14.65%
Total Based on Direct Rate Smoothing	14.69%	12.39%
Impact of Benefit Changes	<u>N/A</u>	<u>N/A</u>
Final ADEC	14.69%	12.39%
Board Approved Contribution under the Employer Contribution Rate Stabilization Policy (ECRSP)		
General Employees and Firefighters	13.60%	12.85%
Law Enforcement Officers	15.10%	14.10%
<b>Current Funding in Effect at</b>	<b>7/1/2023</b>	<b>7/1/2022</b>
Employer Contribution Rate as a percentage of payroll		
General Employees and Firefighters	12.85%	12.10%
Law Enforcement Officers	14.10%	13.10%



## Section 2: Membership Data

The Retirement Systems Division provided membership data as of the valuation date for each member of LGERS. The membership data assists the actuary in estimating benefits that could be paid in the future. The tables below provide a summary of the membership data used in this valuation. Detailed tabulations of data are provided in Appendix A.

**Table 2: Membership Data**

Number as of	12/31/2022	12/31/2021
Active Members	135,706	132,235
Terminated vested members and survivors of deceased members entitled to benefits but not yet receiving benefits	26,221	24,522
Terminated non-vested members and survivors of deceased members entitled to a refund of contributions	75,597	68,951
Retired members and survivors of deceased members currently receiving benefits	<u>82,466</u>	<u>79,318</u>
Total	319,990	305,026

**Table 3: Active Member Data**

	Member Count	Average Age	Average Service	Reported Compensation
General Employees	100,636	45.45	9.19	\$ 5,361,940,463
Firefighters	14,179	37.40	9.63	841,654,412
Law Enforcement Officers	<u>20,891</u>	<u>38.95</u>	<u>11.27</u>	<u>1,323,221,041</u>
Total	135,706	43.61	9.56	\$ 7,526,815,916

The table above includes members not in receipt of benefits who were active at the end of 2022.

**Table 4: Terminated Vested Member Data**

	Member Count	Average Age	Average Service	Annual Deferred Retirement Allowances
General Employees	20,035	50.35	9.51	\$ 154,482,780
Firefighters	1,984	43.20	9.63	17,167,802
Law Enforcement Officers	<u>4,202</u>	<u>44.10</u>	<u>9.85</u>	<u>34,852,018</u>
Total	26,221	48.81	9.57	\$ 206,502,600

The table above includes members not in receipt of benefits who were not active at the end of 2022 and met the requirements for vesting upon termination of employment.

## Section 2: Membership Data (continued)

**Table 5: Terminated Non-Vested Member Data**

	Member Count	Average Age	Average Service	Accumulated Contributions
General Employees	64,778	43.68	1.52	\$ 286,531,507
Firefighters	4,650	35.93	1.81	24,698,718
Law Enforcement Officers	6,169	39.11	2.00	38,080,185
Total	75,597	42.83	1.58	\$ 349,310,410

The table above includes members not in receipt of benefits who were not active at the end of 2022 and did not meet the requirements for vesting upon termination of employment.

**Table 6: Data for Members Currently Receiving Benefits**

	Member Count	Average Age	Annual Retirement Allowances
<u>Retired Members (Healthy at Retirement)</u>			
General Employees	52,015	71.18	\$ 1,035,916,907
Firefighters	3,133	65.51	103,243,424
Law Enforcement Officers	10,391	64.87	306,148,681
Total	65,539	69.91	\$ 1,445,309,012
<u>Retired Members (Disabled at Retirement)*</u>			
General Employees	6,079	65.32	\$ 105,635,512
Firefighters	1,218	62.57	33,770,844
Law Enforcement Officers	1,616	58.12	35,278,351
Total	8,913	63.64	\$ 174,684,707
<u>Survivors of Deceased Members</u>			
General Employees	5,912	72.29	\$ 73,406,333
Firefighters	537	73.41	9,503,265
Law Enforcement Officers	1,565	70.79	26,002,748
Total	8,014	72.07	\$ 108,912,346
Grand Total	82,466	69.44	\$ 1,728,906,065

\* Includes retired members reported as disabled in a prior valuation and not subsequently reported as returned to work.

## Section 3: Asset Data

Assets are held in trust and are invested for the exclusive benefit of LGERS members. The tables below provide the details of the Market Value of Assets for the current and prior years' valuations.

**Table 7: Market Value of Assets**

Asset Data as of	12/31/2022	12/31/2021
Beginning of Year Market Value of Assets	\$ 33,459,926,149	\$ 30,905,570,910
Employer Contributions	966,602,473	813,119,212
Employee Contributions	490,316,163	461,053,728
Court Costs	2,484,268	2,360,217
Benefit Payments Other Than Refunds	(1,736,653,302)	(1,609,920,723)
Refunds	(76,250,624)	(72,899,062)
Administrative Expenses	(5,728,433)	(5,399,241)
Investment Income	<u>(3,445,288,880)</u>	<u>2,966,041,108</u>
Net Increase/(Decrease)	(3,804,518,335)	2,554,355,239
End of Year Market Value of Assets	\$ 29,655,407,814	\$ 33,459,926,149
Estimated Net Investment Return on Market Value	-10.35%	9.66%

**Table 8: Allocation of Investments by Category of the Market Value of Assets**

Asset Data as of	12/31/2022	12/31/2021
Allocation by Dollar Amount		
Public Equity	\$ 9,882,002,765	\$ 11,982,868,255
Fixed Income (LTIF)	6,844,721,031	8,003,854,492
Cash and Receivables	4,731,059,535	4,790,545,988
Other*	<u>8,197,624,483</u>	<u>8,682,657,414</u>
Total Market Value of Assets	\$ 29,655,407,814	\$ 33,459,926,149
Allocation by Percentage of Asset Value		
Public Equity	33.3%	35.8%
Fixed Income (LTIF)	23.1%	23.9%
Cash and Receivables	16.0%	14.3%
Other*	<u>27.6%</u>	<u>26.0%</u>
Total Market Value of Assets	100.0%	100.0%

\* Real Estate, Alternatives, Inflation, and Credit

## Section 3: Asset Data (continued)

In order to reduce the volatility that investment gains and losses can have on the required contributions and funded status of LGERS, the Board adopted an asset valuation method to determine the Actuarial Value of Assets used for funding purposes. The table below provides the calculation of the Actuarial Value of Assets at the valuation date.

**Table 9: Actuarial Value of Assets**

Asset Data as of	12/31/2022
Beginning of Year Actuarial Value of Assets	\$ 31,643,208,176
Beginning of Year Market Value of Assets	\$ 33,459,926,149
Total Contributions and Court Costs	1,459,402,904
Benefit Payments, Refunds and Administrative Expenses	(1,818,632,359)
Net Cash Flow	(359,229,455)
Expected Investment Return	2,163,404,034
Expected End of Year Market Value of Assets	35,264,100,728
End of Year Market Value of Assets	\$ 29,655,407,814
Excess of Market Value over Expected Market Value of Assets	(5,608,692,914)
80% of 2022 Asset Gain/(Loss)	(4,486,954,331)
60% of 2021 Asset Gain/(Loss)	582,208,896
40% of 2020 Asset Gain/(Loss)	464,095,116
20% of 2019 Asset Gain/(Loss)	388,085,676
Total Deferred Asset Gain/(Loss)	(3,052,564,643)
Preliminary End of Year Actuarial Value of Assets	32,707,972,457
Final End of Year Actuarial Value of Assets (not less than 80% and not greater than 120% of Market Value)	\$ 32,707,972,457
Estimated Net Investment Return on Actuarial Value	4.53%

**Commentary:** The actuarial value of assets smooths investment gains/losses, resulting in less volatility in the employer contribution. The asset valuation method recognizes asset returns in excess of or less than the expected return on the market value of assets over a five-year period.

Lower than expected market returns in 2022 resulted in an actuarial value of asset return for calendar year 2022 of 4.53% and a recognized actuarial asset loss of \$621 million during 2022. After recognizing this loss, the assets at actuarial value were \$4.4 billion less than the actuarial accrued liability as of December 31, 2022.

## Section 3: Asset Data (continued)

The valuation assumes that the funds will earn a 6.50% asset return in all future years. The table below provides a history of the Actuarial Value and Market Value of Asset returns.

**Table 10: Historical Asset Returns**

Calendar Year	Expected Asset Return	Actuarial Value of Asset Return	Market Value of Asset Return	20 Year Average Market Return
2003	7.25%	8.52%	18.63%	N/A
2004	7.25%	9.00%	10.77%	N/A
2005	7.25%	8.58%	7.00%	N/A
2006	7.25%	9.19%	11.41%	N/A
2007	7.25%	9.03%	8.36%	N/A
2008	7.25%	2.97%	-19.47%	N/A
2009	7.25%	4.92%	14.94%	N/A
2010	7.25%	6.10%	11.53%	N/A
2011	7.25%	5.33%	2.14%	N/A
2012	7.25%	6.51%	11.79%	N/A
2013	7.25%	7.61%	12.21%	N/A
2014	7.25%	7.32%	6.19%	N/A
2015	7.25%	5.87%	0.34%	6.93%
2016	7.25%	5.34%	6.22%	6.78%
2017	7.20%	6.59%	13.47%	6.57%
2018	7.00%	5.13%	-1.41%	5.67%
2019	7.00%	6.23%	14.83%	5.90%
2020	7.00%	8.79%	11.14%	6.32%
2021	6.50%	9.14%	9.66%	6.91%
2022	6.50%	4.53%	-10.35%	6.56%
20-Year Average	7.13%	6.82%	6.56%	N/A
20-Year Range	0.75%	6.22%	38.10%	N/A

**Commentary:** The average investment return recognized for purposes of determining the annual change in contribution each year is the actuarial value of assets return. Currently, the average actuarial return over the past 20 years of 6.82% compares with an average market return of 6.56%. The range of returns on market value of assets is markedly more volatile, 38.10% versus 6.22%. This results in much lower employer contribution volatility using the actuarial value of assets versus market, while ensuring that the actuarial needs of LGERS are met.

## Section 4: Liability Results

Using the provided membership data, benefit provisions, and actuarial assumptions, the Retirement System's future benefit payments are estimated. These projected future benefit payments are discounted into today's dollars using the assumed rate of investment return assumption to determine the Present Value of Future Benefits. The Present Value of Future Benefits is allocated to past, current, and future service, respectively known as the actuarial accrued liability, normal cost and present value of future normal costs. The table below provides these liability numbers for the current and prior years' valuations.

**Table 11: Liability Summary**

Valuation Results as of	12/31/2022	12/31/2021
(a) Present Value of Future Benefits		
(1) Active Members	\$ 24,972,285,945	\$ 23,224,536,176
(2) Terminated Members	1,773,584,693	1,640,248,972
(3) Members Currently Receiving Benefits	18,528,371,834	17,504,732,597
(4) Total	\$ 45,274,242,472	\$ 42,369,517,745
(b) Present Value of Future Normal Costs		
(1) Employee Future Normal Costs	\$ 3,885,383,808	\$ 3,536,283,962
(2) Employer Future Normal Costs	4,299,330,535	3,949,110,373
(3) Total	\$ 8,184,714,343	\$ 7,485,394,335
(c) Actuarial Accrued Liability: (a4) - (b3)	\$ 37,089,528,129	\$ 34,884,123,410
(d) Actuarial Value of Assets	\$ 32,707,972,457	\$ 31,643,208,176
(e) Unfunded Accrued Liability: (c) - (d)	\$ 4,381,555,672	\$ 3,240,915,234
(f) Unfunded Initial Prior Service Liability*	\$ 7,628,212	\$ 10,095,092
(g) Unfunded Actuarial Accrued Liability to be Amortized over 12 Years (e) - (f)	\$ 4,373,927,460	\$ 3,230,820,142

\* The unfunded initial prior service liability balance as of December 31, 2022 and the applicable employer contribution rate as of July 1, 2024 is provided in Appendix F, for participating employers with remaining initial prior service liability as of December 31, 2022. Appendix F also provides a non-binding estimated date of liquidation of the liability based on this valuation.

**Commentary:** Separate initial unfunded prior service accrued liabilities are still maintained for employers who join the system prior to November 1, 2015.

## Section 4: Liability Results (continued)

The “Estimated Date of Liquidation of Initial Prior Service Liability”, shown in Appendix F, must be recalculated annually and adjusted according to each unit’s actual experience. The estimated date for liquidation of the liability as of the valuation date does not constitute a guarantee that a local unit will complete the liquidation as of the estimated date, for the reason that actual experience may not match the projections used to create the estimate.

The table below provides a summary of the participating employers in the current and prior years’ valuations.

**Table 12: Participating Employers**

Valuation Date	12/31/2022	12/31/2021
Total Participating Employers	896	897
Employers Paying a Prior Service Liability Rate at Prior Valuation Date	48	56
Employers Completing Scheduled Payments Since Prior Valuation Date	2	1
Employers Granted Early Relief Since Prior Valuation Date	4	7
Total Participating Employers Paying a Prior Service Liability Rate at Valuation Date	42	48
Employers Granted Relief for Fiscal Year Beginning 6 Months after Valuation Date	5	4
Employers with Expected Relief for Fiscal year Beginning 18 Months after Valuation Date	7	3

## Section 4: Liability Results (continued)

The table below provides a reconciliation of the prior year's unfunded actuarial accrued liability to the current year's unfunded actuarial accrued liability.

**Table 13: Reconciliation of Unfunded Actuarial Accrued Liability**

(in millions)	
Unfunded Actuarial Accrued Liability (UAAL) as of 12/31/2021	\$ 3,241
Normal Cost and administrative expense during 2022	894
Reduction due to actual contributions during 2022	(1,459)
Interest on UAAL, normal cost, and contributions	222
Asset (gain)/loss	621
Actuarial accrued liability (gain)/loss	862
Impact of assumption changes	-
Impact of benefit changes	-
Unfunded actuarial accrued liability (UAAL) as of 12/31/2022	\$ 4,381

**Commentary:** During 2022, the UAAL increased due to the asset loss of \$621 million. Additionally, changes in the census data, primarily higher-than-expected salary increases for continuing active members, increased the UAAL by \$862 million.



## Section 5: Actuarially Determined Employer Contribution

The actuarially determined employer contribution consists of a normal cost rate and an accrued liability rate. The normal cost rate is the employer's portion of the cost of benefits accruing during the year after reducing for the member contribution. The accrued liability rate is the payment toward the unfunded actuarial accrued liability in order to pay off the unfunded actuarial accrued liability over 12 years. For fiscal years beginning subsequent to January 1, 2017, the sum of the normal cost rate and the accrued liability rate shall not be less than the employee contribution.

The Employer Contribution Rate Stabilization Policy (ECRSP) adopted by the Board of Trustees on April 29, 2021, and amended on January 27, 2022, requires that recommended contributions for general employees be set at 11.35% of payroll for fiscal year ending 2022 and will increase each fiscal year by 0.75% per year, with adjustments for the impact of any benefit or assumption changes that were made and not incorporated in the previous scheduled rate with the following additional adjustments, if applicable:

- (1) If the underlying actuarially determined employer contribution rate (ADEC) for a given fiscal year exceeds the adjusted scheduled employer contribution rate for that fiscal year by more than 1.00% of compensation, an increase equal to 50% of the difference is added to the adjusted scheduled employer contribution rate for the current and future fiscal years
- (2) Beginning July 1, 2024, if the adjusted scheduled employer contribution rate for that fiscal year exceeds the underlying actuarially determined employer contribution rate (ADEC) for a given fiscal year by more than 1.00% of compensation, a decrease equal to 50% of the difference, but not greater than 1.50% of compensation, is added to the adjusted scheduled employer contribution rate for the current and future fiscal years

The ECRSP contribution rates for law enforcement officers will be 1.00% higher than contribution rates for general employees for fiscal year 2023. The 1.00% difference will increase by 0.25% each year until fiscal year 2027, when the contribution rates for law enforcement officers will be 2.00% higher than the contribution rates for general employees.

Appendix H contains a full description of the ECRSP policy.

## Section 5: Actuarially Determined Employer Contribution (continued)

The table below provides the calculation of the actuarially determined employer contribution for the current valuation. The contribution rates shown in the table below do not include an employer's additional initial contribution for unfunded prior service liability.

**Table 14: Calculation of the Actuarially Determined Employer Normal Contribution**

Valuation Date	12/31/2022	12/31/2021
ADEC for Fiscal Year Ending	6/30/2025	6/30/2024
Normal Cost Rate Calculation		
(a) Normal Cost Rate		
General Employees and Firefighters	12.28%	12.33%
Law Enforcement Officers	14.74%	14.88%
(b) Employee rate	6.00%	6.00%
(c) Expenses		
General Employees and Firefighters	0.13%	0.13%
Law Enforcement Officers	0.00%	0.00%
(d) Total Normal Cost Rate: (a) - (b) + (c)		
General Employees and Firefighters	6.41%	6.46%
Law Enforcement Officers	8.74%	8.88%
Accrued Liability Rate Calculation		
(e) Total Annual Amortization Payments*	\$ 633,265,996	\$ 447,155,812
(f) Projected Compensation**	8,502,121,758	7,748,900,026
(g) Accrued Liability Rate: (e) / (f)	7.45%	5.77%
Preliminary ADEC: (d) + (g)		
General Employees and Firefighters	13.86%	12.23%
Law Enforcement Officers	16.19%	14.65%
ADEC with Direct Rate Smoothing		
General Employees and Firefighters	12.66%	10.43%
Impact of Benefit Changes	<u>N/A</u>	<u>N/A</u>
Final ADEC	12.66%	10.43%
Law Enforcement Officers	14.69%	12.39%
Impact of Benefit Changes	<u>N/A</u>	<u>N/A</u>
Final ADEC	14.69%	12.39%

\* See Table 17 for more detail.

\*\* Beginning with the December 31, 2017 valuation, compensation is projected to the fiscal year over which contributions will occur.

## Section 5: Actuarially Determined Employer Contribution (continued)

A detailed table of contribution rates payable by participating employers is provided in Appendix E. In addition to the actuarially determined employer contribution, as determined by the December 31, 2022 valuation (see Table 14 for more details), the unfunded initial prior service liability contribution rate is reflected for those employers that have not liquidated this liability as of June 30, 2024 (see Appendix F for more details).

The table below provides a reconciliation of the current and prior years' actuarially determined employer contributions.

**Table 15: Reconciliation of the Change in Employer Normal Contribution Rates**

	<b>General Employees and Firefighters</b>	<b>Law Enforcement Officers</b>
Fiscal year ending June 30, 2024 Preliminary ADEC (based on December 31, 2021 valuation)	10.43%	12.39%
Impact of benefit changes	0.00%	0.00%
Fiscal year ending June 30, 2024 Final ADEC	10.43%	12.39%
Expected change in UAAL*	0.26%	0.26%
Change due to demographic (gain)/loss	0.70%	0.62%
Change due to investment (gain)/loss	1.05%	1.05%
Change due to contributions greater than ADEC**	(0.38%)	(0.38%)
Impact of assumption changes	0.00%	0.00%
Impact of benefit changes	0.00%	0.00%
Impact of Direct Rate Smoothing	0.60%	0.75%
Fiscal year ending June 30, 2025 Preliminary ADEC (based on December 31, 2022 valuation)	12.66%	14.69%

\* Amortization of the UAAL is determined as a level dollar amount with payments expected to remain the same over the amortization period but was calculated as a percentage of valuation payroll in the previous valuation. Payroll is expected to increase annually while the expected amortization payment does not increase. This causes the expected amortization payment to be a lesser percentage of the expected payroll. Also, since the ADEC is for fiscal years that begin after the valuation date, and actual contributions are based on the ADEC for the current fiscal year, and since the ADECs have been increasing in recent years, the timing of the actual contributions can cause an expected increase in UAAL. In periods when the ADEC is decreasing from year to year, the timing of the actual contributions can accelerate the expected decrease in UAAL.

\*\* Employer contribution rates for General Employees and Law Enforcement during 2022 were greater than the ADEC overall.

## Section 5: Actuarially Determined Employer Contribution (continued)

Amortization methods determine the payment schedule for the unfunded actuarial accrued liability. LGERS adopted a 12-year closed amortization period for fiscal year ending 2018. A new amortization base is created each year based on the prior years' experience. The tables below provide the calculation of the new amortization base and the amortization schedule for the current year's valuation.

**Table 16: Calculation of the New Amortization Base**

Calculation as of		12/31/2022	12/31/2021
(a)	Unfunded Actuarial Accrued Liability*	\$ 4,373,927,460	\$ 3,230,820,142
(b)	Prior Years' Outstanding Balances	\$ 2,948,163,892	\$ 3,943,620,512
(c)	New Amortization Base: (a) - (b)	\$ 1,425,763,568	\$ (712,800,370)
(d)	New Amortization Payment	\$ 186,110,184	\$ (93,044,465)

\* Does not include the unfunded initial prior service liability

**Table 17: Amortization Schedule for Unfunded Actuarial Accrued Liability**

Date Established	Original Balance	12/31/2022 Outstanding Balance	Annual Payment Effective July 1, 2024
December 31, 2015	\$ 677,367,798	\$ 479,656,346	\$ 89,938,080
December 31, 2016	472,513,055	373,607,960	62,510,871
December 31, 2017	961,083,903	833,642,073	126,675,678
December 31, 2018	667,733,439	627,997,914	87,853,163
December 31, 2019	377,679,711	380,450,128	49,531,383
December 31, 2020	947,579,888	1,011,941,865	123,691,102
December 31, 2021	(712,800,370)	(759,132,394)	(93,044,465)
December 31, 2022	1,425,763,568	<u>1,425,763,568</u>	<u>186,110,184</u>
Total		\$ 4,373,927,460	\$ 633,265,996

## Section 5: Actuarially Determined Employer Contribution (continued)

The tables below provide a history of the actuarially determined employer contribution rates.

**Table 18: Actuarially Determined Employer Contribution Rates for General Employees and Firefighters**

Valuation Date	Rate Effective	Preliminary ADEC	Benefit Changes*	Final ADEC	Actual Contribution
12/31/2022	7/1/2024	12.66%	N/A	N/A	N/A
12/31/2021	7/1/2023	10.43%	0.00%	10.43%	12.85%
12/31/2020	7/1/2022	11.22%	0.44%	11.66%	12.10%
12/31/2019	7/1/2021	11.27%	0.00%	11.27%	11.35%
12/31/2018	7/1/2020	10.24%	0.00%	10.24%	10.15%
12/31/2017	7/1/2019	8.56%	0.00%	8.56%	8.95%

\* Benefit changes for the contribution for fiscal year ending June 30, 2023 provided to LGERS benefit recipients a one-time supplement equal to 2% of the member's annual retirement allowance for the fiscal year ending June 30, 2023, paid by October 2022.

**Table 19: Actuarially Determined Employer Contribution Rates for Law Enforcement Officers**

Valuation Date	Rate Effective	Preliminary ADEC	Benefit Changes*	Final ADEC	Actual Contribution
12/31/2022	7/1/2024	14.69%	N/A	N/A	N/A
12/31/2021	7/1/2023	12.39%	0.00%	12.39%	14.10%
12/31/2020	7/1/2022	13.00%	0.44%	13.44%	13.10%
12/31/2019	7/1/2021	12.94%	0.00%	12.94%	12.10%
12/31/2018	7/1/2020	11.92%	0.00%	11.92%	10.90%
12/31/2017	7/1/2019	10.22%	0.00%	10.22%	9.70%

\* Benefit changes for the contribution for fiscal year ending June 30, 2023 provided to LGERS benefit recipients a one-time benefit supplement payment equal to 2% of the member's annual retirement allowance for the fiscal year ending June 30, 2023, paid by October 2022.

## Section 5: Actuarially Determined Employer Contribution (continued)

The following table shows estimates of the potential cost of two types of benefit improvements if they were enacted based on the results of the December 31, 2022 or December 31, 2021 valuations. The first benefit improvement is a permanent one-time cost-of-living increase, the second is a one-time supplement and the third is an increase in the defined benefit formula multiplier.

**Table 20: Cost of Benefits Enhancements**

Calculation as of	12/31/2022	12/31/2021
Increase in the UAAL for a 1% COLA	201,298,000	189,284,000
Increase in the ADEC for a 1% COLA	0.31%	0.32%
Increase in the UAAL for a 1% Supplement	19,037,000	17,930,000
Increase in the ADEC for a 1% Supplement	0.22%	0.23%
Increase in the UAAL for a 0.01% Increase in the Defined Benefit Formula	196,470,000	186,871,000
Increase in the ADEC for a 0.01% Increase in the Defined Benefit Formula	0.38%	0.39%

The 1% COLA in the December 31, 2022 column would be effective July 1, 2024 and includes expected costs of COLAs paid for retirements after December 31, 2022 and before June 30, 2024. The COLA would be paid in full to retired members and survivors of deceased members on the retirement roll on July 1, 2023 and would be prorated for retired members and survivors of deceased members who commence benefits after July 1, 2023 but before June 30, 2024. We are assuming that the cost of the COLA is amortized over a 12-year period.

The 1% Supplement in the December 31, 2022 column includes expected costs of supplements paid for retirements before June 30, 2024. The supplement would be equal to 1.0% of the annual allowances of retirees and other beneficiaries who commence retirement on or before July 1, 2024. We are assuming that the cost of the supplement is amortized over a one-year period.

The 0.01% increase in the defined benefit formula would include a corresponding increase in retirement allowances. We are assuming that the cost of the 0.01% benefit increase is amortized over a 12-year period.

N.C.G.S. 128-27(k) COLA Disclosure for Board of Trustees:

This valuation indicates an actuarial investment loss was incurred during 2022, and there are no investment gains available to support authorization by the LGERS Board of Trustees of either of the following:

- a Cost-of-Living Adjustment (COLA) that would take effect on July 1, 2024; or
- a one-time supplement to participants in receipt of benefits on September 1, 2024, payable October 2024.

Had it been permissible, then:

- (1) The maximum COLA that could have been granted under N.C.G.S. 128-27(k) by the Board payable in Fiscal Year 2024 is 4.00%
- (2) Amount of actuarial accrued liability that would have been added if the maximum COLA is granted: \$805.2 million
- (3) Amount the maximum COLA would have increased the underlying ADEC: 1.24%
- (4) ECRSP rate for General/Firefighters including the impact for this COLA: 14.84% (13.60% + 1.24%)
- (5) ECRSP rate for Law Enforcement Officers including the impact for this COLA: 16.34% (15.10% + 1.24%)

## Section 6: Projections

Projections of contribution requirements and funded status into the future can be helpful planning tools for stakeholders. This section provides such projections. The projections of the actuarial valuation are known as deterministic projections. Deterministic projections are based on one scenario in the future. The baseline deterministic projection is based on December 31, 2022 valuation results as assumptions.

### Key Projection Assumptions

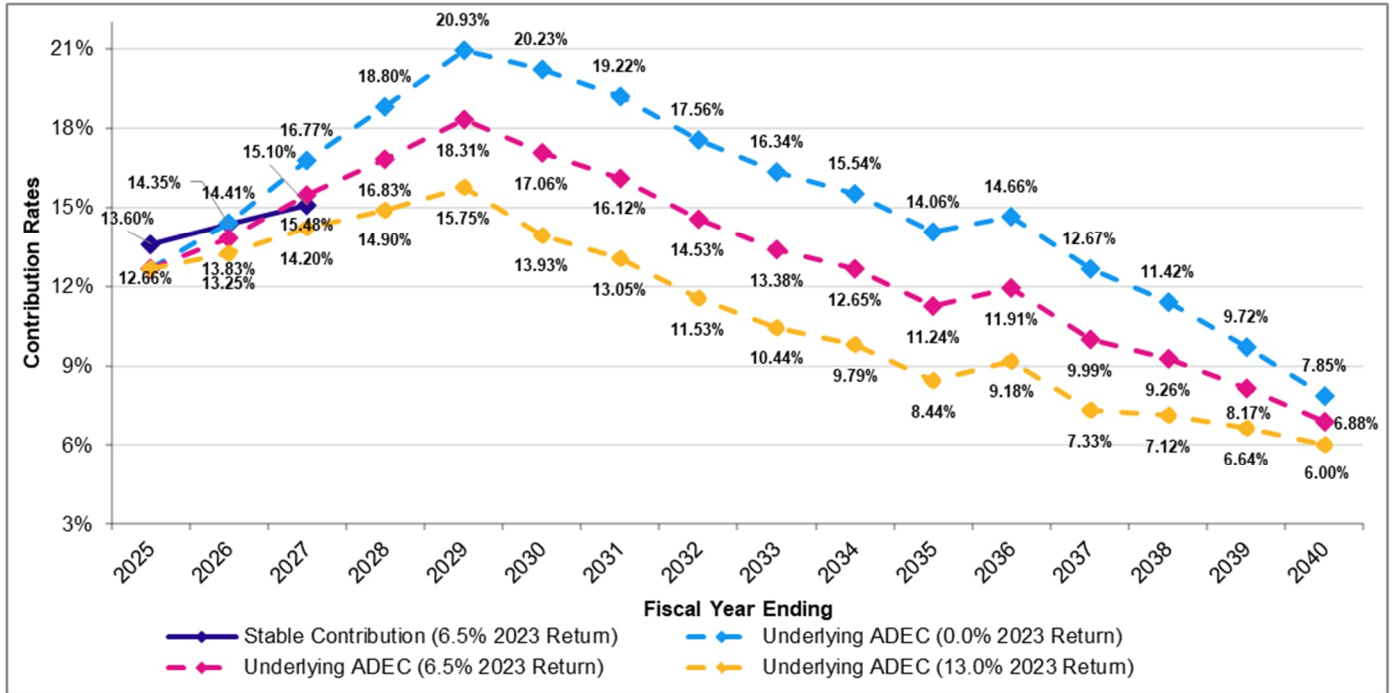
- Valuation interest rate of 6.50%
- Direct rate smoothing of the employer contribution rate over a 5-year period beginning July 1, 2023.
- 6.50% investment return on market value of assets
- Actuarial assumptions and methods as described in Appendix C. All future demographic experience is assumed to be exactly realized.
- The contribution rate under the Employer Contribution Rate Stabilization Policy (ECRSP) is contributed until fiscal year ending 2027.
- The actuarially determined contribution rate is contributed for fiscal years ending 2028 and beyond.
- 0% increase in the total active member population
- No cost-of-living adjustments granted
- Future pay increases based on long-term valuation

The ECRSP contribution rate is the Stable Contribution rate shown in the projections. See Appendix H for more detail on the ECRSP. In addition, we have provided two alternate deterministic projections. The first alternate deterministic projection is based on the same assumptions as the baseline deterministic projection except that it assumes a 0.0% asset return for calendar year 2023. The second alternate deterministic projection is based on the same assumptions as the baseline deterministic projection except that it assumes a 13.0% asset return for calendar year 2023.

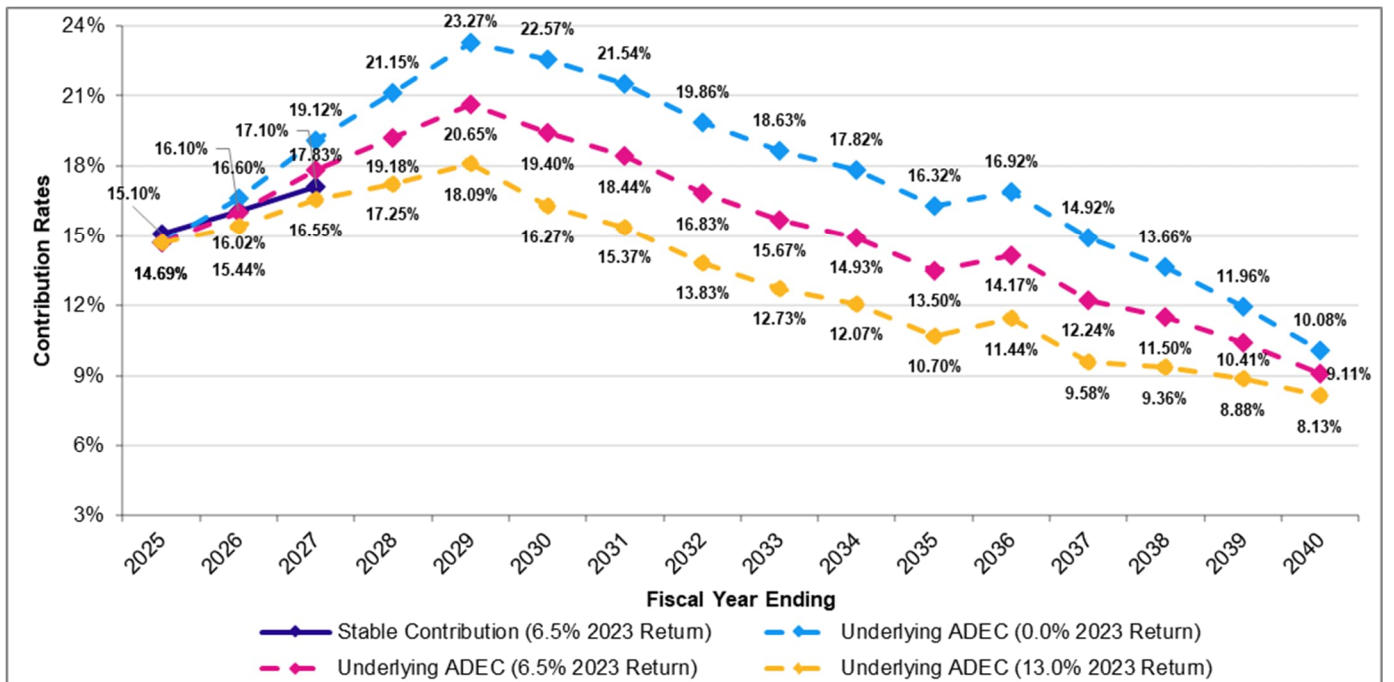
## Section 6: Projections (continued)

The graphs below provide the actuarially determined employer contribution rates projected for 15 years, as well as the board approved stable contribution under the Employer Contribution Rate Stabilization Policy.

### Projected Actuarially Determined Employer Contribution Rates for General Employees and Firefighters



### Projected Actuarially Determined Employer Contribution Rates for Law Enforcement Officers

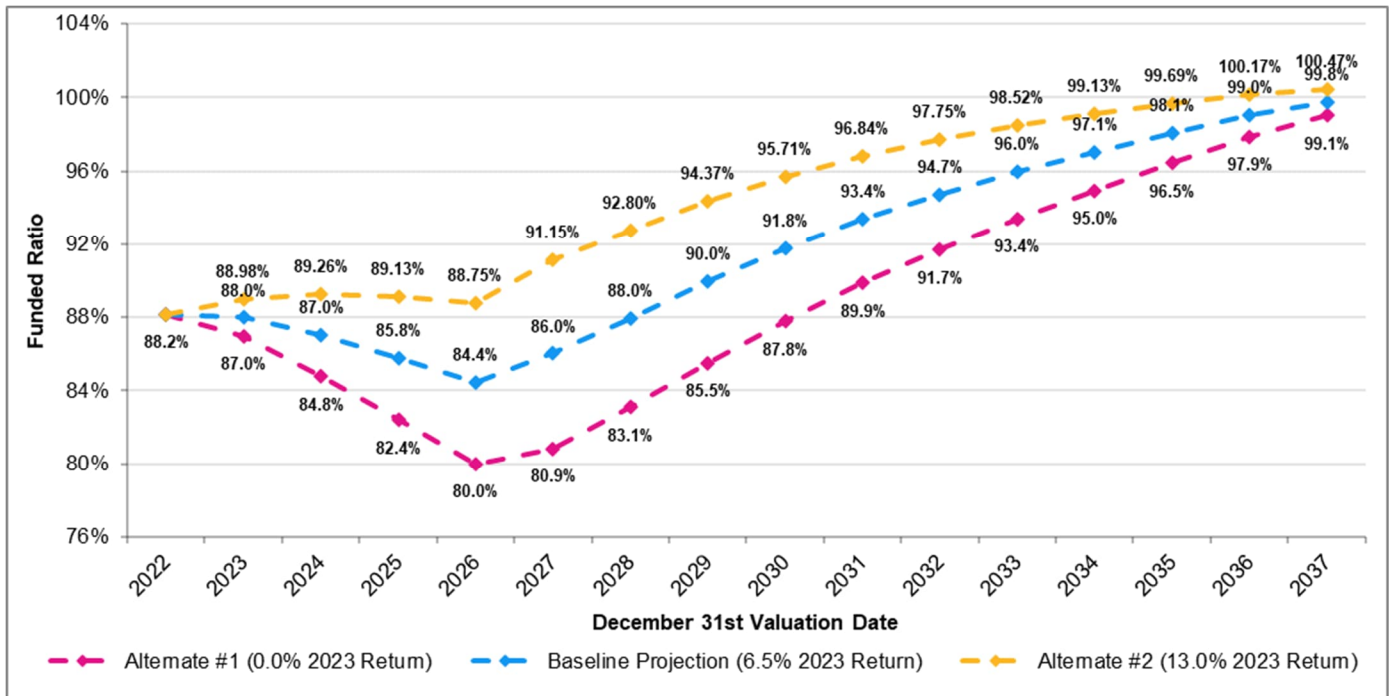




# Section 6: Projections (continued)

The graph below provides the funded ratio projected for 15 years.

## Projected Funded Ratio



Absent favorable asset returns and other deviations from expectations resulting in gains to the plan's funded status, funded ratios are expected to decline until 2026, which is the point that the unfavorable asset returns in 2022 are fully recognized in the actuarial value of assets. Subsequently, funded ratios are expected to increase as unfunded liability bases associated with the asset returns in 2022 are amortized.

# Appendix A: Detailed Tabulations of Member Data

**Table A-1: Number and Average Reported Compensation of Active Members Distributed by Age and Service as of December 31, 2022**

Age	Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up		
Under 25	1,715	4,825	126	0	0	0	0	0	0	0	0	6,666
	9,212	38,343	49,115	0	0	0	0	0	0	0	0	31,052
25 to 29	1,553	9,033	3,314	38	0	0	0	0	0	0	0	13,938
	9,721	43,848	53,553	56,716	0	0	0	0	0	0	0	42,388
30 to 34	1,241	6,907	6,647	1,825	57	0	0	0	0	0	0	16,677
	9,944	45,145	55,931	62,287	64,887	0	0	0	0	0	0	48,768
35 to 39	915	4,957	4,907	3,823	2,002	39	0	0	0	0	0	16,643
	10,289	46,960	58,037	65,072	67,782	71,752	0	0	0	0	0	54,933
40 to 44	801	4,083	3,690	2,833	3,899	1,469	45	0	0	0	0	16,820
	11,015	48,264	58,768	65,432	71,158	74,857	80,475	0	0	0	0	59,402
45 to 49	682	3,599	3,174	2,322	3,051	3,312	1,391	12	0	0	0	17,543
	10,747	47,913	58,420	64,497	70,556	77,311	82,423	74,940	0	0	0	62,807
50 to 54	621	3,453	3,128	2,335	2,751	2,759	2,978	408	9	0	0	18,442
	9,988	47,954	57,857	62,300	67,547	75,312	84,089	86,442	79,148	0	0	63,889
55 to 59	510	2,709	2,506	1,968	2,250	1,900	1,559	607	176	5	0	14,190
	9,934	47,624	56,620	60,905	64,686	69,777	77,920	87,553	88,089	80,485	0	60,922
60 to 64	256	1,773	1,943	1,426	1,691	1,284	810	399	241	67	0	9,890
	10,513	47,742	55,736	62,355	62,314	66,077	72,827	81,285	85,850	82,004	0	59,896
65 to 69	92	585	696	535	545	376	240	144	92	101	0	3,406
	8,383	40,667	51,502	59,710	65,102	65,286	72,033	74,837	83,507	92,902	0	57,989
70 & Up	55	343	324	230	221	111	83	44	33	47	0	1,491
	7,330	28,930	38,526	44,693	55,553	65,322	61,126	86,296	72,284	85,889	0	45,546
Total	8,441	42,267	30,455	17,335	16,467	11,250	7,106	1,614	551	220	0	135,706
	9,944	45,145	56,542	63,236	67,809	73,406	80,427	84,460	85,252	87,803	0	55,464

## Appendix A: Detailed Tabulations of Member Data (continued)

**Table A-2: Number and Reported Compensation of Active Members Distributed by Age as of December 31, 2022**

Age	Men		Women	
	Number	Compensation	Number	Compensation
15	1	\$ 5,221	0	\$ 0
16	1	82	0	0
17	1	17,643	0	0
18	22	201,793	7	73,301
19	209	3,185,511	58	863,513
20	326	8,204,876	103	1,833,615
21	515	13,678,784	219	5,308,973
22	761	24,122,916	427	11,252,784
23	1,107	38,647,321	663	18,585,453
24	1,363	51,528,116	883	29,480,388
25	1,459	59,874,262	948	33,398,980
26	1,509	64,523,728	1,086	40,391,061
27	1,741	78,936,306	1,131	44,645,731
28	1,731	80,552,208	1,186	47,986,081
29	1,797	84,468,897	1,350	56,030,397
30	1,908	93,582,131	1,348	57,537,585
31	1,923	96,305,550	1,344	59,553,355
32	1,998	103,272,187	1,403	63,495,735
33	1,991	103,553,963	1,411	64,694,066
34	1,913	104,677,774	1,438	66,624,674
35	1,949	107,866,435	1,342	66,962,636
36	1,922	109,635,404	1,448	71,513,397
37	1,950	114,904,650	1,475	73,118,800
38	1,849	112,551,825	1,427	72,692,579
39	1,856	112,017,801	1,425	72,987,505
40	1,897	117,323,903	1,464	78,168,428
41	1,936	122,257,574	1,546	82,511,325
42	1,837	116,734,463	1,475	79,496,130
43	1,743	111,063,256	1,529	84,714,909
44	1,798	117,548,574	1,595	89,320,965
45	1,780	117,776,390	1,615	91,574,831
46	1,903	125,341,538	1,597	90,103,663
47	1,794	121,079,072	1,527	86,160,009
48	2,014	138,550,431	1,649	95,939,306
49	1,937	135,053,307	1,727	100,244,669
50	1,963	134,915,039	1,633	92,753,136
51	2,100	146,823,868	1,787	104,017,723
52	2,107	149,812,193	1,920	111,776,790
53	1,853	127,326,925	1,797	104,434,117
54	1,703	116,559,292	1,579	89,819,335

## Appendix A: Detailed Tabulations of Member Data (continued)

**Table A-2: Number and Reported Compensation of Active Members Distributed by Age as of December 31, 2022 (continued)**

Age	Men		Women	
	Number	Compensation	Number	Compensation
55	1,616	\$ 109,453,581	1,541	\$ 90,699,706
56	1,344	88,530,824	1,447	80,600,262
57	1,308	84,042,898	1,454	81,405,051
58	1,285	82,582,870	1,454	81,391,303
59	1,275	83,592,394	1,466	82,177,356
60	1,212	77,107,282	1,310	73,854,877
61	1,085	68,869,689	1,198	67,104,711
62	945	60,854,258	1,099	61,123,784
63	755	49,112,577	876	48,039,803
64	648	43,740,377	762	42,566,474
65	532	34,959,166	619	33,630,088
66	413	26,137,716	406	22,821,866
67	302	18,805,956	276	14,393,658
68	231	13,447,058	254	13,021,228
69	200	10,989,732	173	9,303,499
70	170	9,389,366	130	6,335,204
71	140	7,621,896	97	4,562,617
72	125	6,547,248	86	4,080,589
73	94	3,950,407	77	3,446,225
74	84	3,523,249	49	1,978,535
75	49	2,033,269	39	1,560,108
76	51	2,158,709	41	1,576,896
77	35	1,377,154	17	681,053
78	35	1,110,218	15	600,885
79	27	931,435	16	611,806
80	28	1,112,249	11	515,447
81	16	392,625	3	83,341
82	16	565,036	3	139,531
83	8	257,197	2	58,421
84	4	85,296	2	42,490
85	5	134,518	5	130,783
86	3	43,177	1	65,454
87	2	83,508	1	12,998
88	0	0	2	10,166
91	0	0	1	48,584
95	1	51,028	0	0
<b>Total</b>	<b>74,211</b>	<b>\$ 4,358,075,172</b>	<b>61,495</b>	<b>\$ 3,168,740,744</b>

## Appendix A: Detailed Tabulations of Member Data (continued)

**Table A-3: Number and Reported Compensation of Active Members Distributed by Service as of December 31, 2022**

Service	Men		Women	
	Number	Compensation	Number	Compensation
0	4,055	\$ 40,770,617	4,386	\$ 43,166,054
1	7,639	288,095,148	8,399	312,873,315
2	4,792	232,004,775	4,583	213,502,916
3	4,601	235,136,249	3,848	186,950,407
4	4,524	242,809,264	3,881	196,768,888
5	4,177	232,261,147	3,404	177,903,433
6	3,599	205,133,967	3,147	167,709,532
7	3,254	191,726,985	2,717	149,387,980
8	3,016	182,711,189	2,395	133,438,701
9	2,667	162,917,329	2,079	118,795,766
10	2,419	153,880,150	2,084	121,991,702
11	2,136	139,744,569	1,538	90,338,082
12	1,843	119,680,741	1,300	78,411,844
13	1,710	115,993,764	1,170	70,955,154
14	1,877	127,880,832	1,258	77,327,042
15	2,265	158,099,914	1,652	102,163,065
16	2,037	140,932,674	1,424	88,675,400
17	1,926	136,532,922	1,338	85,641,944
18	1,847	132,708,307	1,233	80,708,549
19	1,621	117,993,406	1,124	73,149,009
20	1,354	101,347,302	895	58,992,570
21	1,225	93,180,083	932	63,078,330
22	1,364	105,079,867	933	61,605,126
23	1,347	107,714,620	979	66,005,310
24	1,336	107,666,247	885	61,149,909
25	1,116	91,717,854	732	52,047,512
26	1,017	86,271,389	565	41,154,992
27	873	76,292,440	521	36,421,316
28	793	69,066,704	520	39,220,795
29	546	47,761,425	423	31,560,240
30	256	23,497,865	234	16,771,350
31	173	16,097,111	183	13,312,438
32	149	13,996,695	142	11,146,430
33	138	12,981,552	111	8,782,750
34	121	11,313,496	107	8,419,070
35	91	8,553,266	86	7,185,105
36	69	6,017,900	54	3,911,593
37	51	4,537,548	49	3,786,032
38	52	4,935,404	42	3,653,739
39	25	1,943,729	32	2,449,557

## Appendix A: Detailed Tabulations of Member Data (continued)

**Table A-3: Number and Reported Compensation of Active Members Distributed by Service as of December 31, 2022 (continued)**

Service	Men		Women	
	Number	Compensation	Number	Compensation
40	26	\$ 2,465,578	18	\$ 1,347,698
41	20	1,932,178	15	1,099,073
42	19	1,879,076	20	1,402,525
43	9	851,385	8	932,452
44	9	925,705	11	712,184
45	9	712,251	10	628,940
46	4	467,434	6	410,090
47	7	1,050,687	5	313,365
48	1	46,623	3	348,080
49	0	0	4	263,759
50	0	0	3	156,886
51	1	74,070	1	57,628
52	1	155,548	2	237,508
53	2	260,222	1	97,590
54	1	161,731	0	0
55	1	106,238	0	0
56	0	0	1	103,484
57	0	0	1	51,081
68	0	0	1	65,454
Total	74,211	\$ 4,358,075,172	61,495	\$ 3,168,740,744

## Appendix A: Detailed Tabulations of Member Data (continued)

**Table A-4: Number and Accumulated Contributions of Terminated Members Distributed by Age as of December 31, 2022**

Age	Men		Women	
	Number	Contributions	Number	Contributions
18	3	\$ 961	1	\$ 245
19	31	23,670	11	7,419
20	86	74,676	33	24,222
21	141	184,032	80	85,670
22	240	433,316	124	179,837
23	430	864,475	207	310,534
24	606	1,479,703	416	796,220
25	688	2,030,926	532	1,331,950
26	868	3,011,820	685	2,014,669
27	1,003	3,784,941	793	2,771,037
28	1,092	4,540,928	893	3,713,407
29	1,213	5,681,635	1,013	4,693,816
30	1,266	6,689,441	1,113	5,687,202
31	1,358	7,858,468	1,219	6,978,619
32	1,441	9,864,519	1,345	8,152,806
33	1,497	10,981,951	1,286	8,382,113
34	1,414	11,911,459	1,346	9,028,568
35	1,371	11,485,655	1,378	10,452,056
36	1,490	14,595,451	1,397	11,009,403
37	1,434	15,389,148	1,402	12,596,081
38	1,490	16,051,814	1,522	14,084,009
39	1,327	15,531,312	1,453	15,163,738
40	1,437	18,664,288	1,478	16,096,188
41	1,358	18,245,191	1,439	16,161,877
42	1,267	17,647,044	1,508	17,876,755
43	1,303	19,150,839	1,591	18,915,394
44	1,221	18,562,044	1,594	20,801,883
45	1,173	18,814,146	1,496	20,366,359
46	1,217	19,995,989	1,433	20,878,099
47	1,136	19,914,348	1,407	20,827,441
48	1,174	21,335,111	1,545	22,631,965
49	1,181	22,994,759	1,462	23,261,794
50	1,206	23,632,058	1,437	24,073,948
51	1,216	23,196,628	1,399	23,131,861
52	1,306	24,114,333	1,593	26,515,195
53	1,201	22,986,806	1,498	24,685,463
54	1,097	21,179,932	1,352	24,146,389
55	992	19,006,465	1,208	21,384,278
56	974	17,420,969	1,147	20,587,354
57	907	15,178,157	1,160	21,949,733

## Appendix A: Detailed Tabulations of Member Data (continued)

**Table A-4: Number and Accumulated Contributions of Terminated Members Distributed by Age as of December 31, 2022 (continued)**

Age	Men		Women	
	Number	Contributions	Number	Contributions
58	957	\$ 19,066,342	1,132	\$ 21,690,813
59	866	17,454,819	1,157	21,887,439
60	765	14,113,683	1,093	21,879,814
61	707	14,379,942	881	17,688,736
62	591	11,584,844	774	14,829,189
63	506	9,544,092	697	13,417,961
64	405	7,632,833	668	13,677,391
65	388	7,100,221	576	10,530,973
66	314	4,832,205	369	6,772,791
67	279	3,876,085	348	5,216,881
68	251	3,261,918	298	4,557,431
69	210	2,739,072	257	3,765,556
70	156	1,828,904	219	3,690,815
71	152	1,860,009	167	1,971,939
72	99	768,444	147	2,285,400
73	79	809,196	87	964,678
74	44	327,405	39	475,751
75	40	135,178	27	459,040
76	37	334,921	17	200,940
77	28	244,891	16	116,914
78	9	52,290	4	39,071
79	9	92,463	8	106,347
80	13	195,530	9	124,973
81	11	32,287	3	7,054
82	6	14,928	6	67,721
83	8	102,068	1	1,856
84	3	5,703	2	29,223
85	1	10,492	3	11,909
86	2	9,673	0	0
87	8	75,413	2	23,213
88	2	3,423	3	13,798
89	2	7,422	0	0
90	3	5,438	1	50,361
92	0	0	0	0
95	0	0	0	0
96	0	0	0	0
100+	2	613	0	0
Total	48,811	\$ 627,020,511	53,007	\$ 668,311,575



## Appendix A: Detailed Tabulations of Member Data (continued)

**Table A-5: Number and Annual Retirement Allowances of Retired Members (Healthy at Retirement) and Survivors of Deceased Members Distributed by Age as of December 31, 2022**

Age	Men		Women	
	Number	Allowances	Number	Allowances
<20	5	\$ 67,089	5	\$ 56,549
21	0	0	0	0
22	0	0	2	33,495
23	6	101,405	1	12,374
24	3	50,682	0	0
25	6	49,595	3	85,061
27	0	0	0	0
28	2	12,656	3	45,796
29	3	53,850	1	5,412
30	5	73,011	6	54,559
31	5	68,290	5	71,371
32	2	14,522	9	114,976
33	7	70,921	5	40,665
34	1	26,565	11	128,182
35	9	73,640	11	81,216
36	8	77,395	6	84,748
37	7	59,103	5	65,434
38	11	128,174	7	55,660
39	9	132,864	7	85,974
40	9	149,474	15	138,007
41	10	193,454	17	213,287
42	13	132,465	13	237,272
43	7	56,329	15	147,082
44	8	86,628	22	286,330
45	8	73,046	14	189,933
46	11	143,736	13	165,139
47	14	173,057	22	335,930
48	23	694,644	30	333,088
49	59	2,050,390	27	325,376
50	98	3,567,792	44	795,510
51	268	9,654,939	94	2,216,314
52	356	12,486,437	163	4,195,382
53	474	17,962,320	195	4,988,850
54	514	19,334,100	211	5,721,540
55	634	22,882,730	270	7,750,788
56	797	27,946,529	366	10,208,986
57	800	27,261,562	385	10,628,225
58	862	29,114,926	469	12,846,082
59	952	32,179,883	513	14,214,224
60	914	29,334,620	618	16,568,635

## Appendix A: Detailed Tabulations of Member Data (continued)

**Table A-5: Number and Annual Retirement Allowances of Retired Members (Healthy at Retirement) and Survivors of Deceased Members Distributed by Age as of December 31, 2022 (continued)**

Age	Men		Women	
	Number	Allowances	Number	Allowances
61	1,083	\$ 33,453,304	861	\$ 23,051,736
62	1,146	33,853,751	1,036	24,421,544
63	1,178	32,825,280	1,202	26,020,435
64	1,250	33,252,384	1,244	25,653,990
65	1,288	33,049,761	1,464	29,521,322
66	1,489	37,159,109	1,606	31,474,614
67	1,528	36,982,432	1,718	31,099,216
68	1,546	37,155,656	1,783	32,076,769
69	1,517	35,836,340	1,736	30,894,838
70	1,532	35,313,460	1,781	31,401,623
71	1,537	34,799,215	1,800	28,764,554
72	1,524	32,966,423	1,696	28,115,763
73	1,347	29,246,987	1,646	26,979,900
74	1,331	28,629,960	1,597	25,213,900
75	1,284	25,530,074	1,585	24,363,066
76	1,299	26,197,878	1,604	24,597,232
77	819	16,170,262	1,157	17,022,756
78	818	16,158,713	1,070	16,111,204
79	669	12,453,744	941	13,237,938
80	707	13,535,009	981	13,731,345
81	521	9,089,427	812	11,048,479
82	441	8,172,139	691	8,983,984
83	424	7,303,443	646	8,544,056
84	339	5,693,332	610	7,952,173
85	311	5,519,367	533	6,819,569
86	283	4,892,851	490	5,767,354
87	240	4,329,751	424	5,535,750
88	193	3,179,451	370	4,672,071
89	164	2,342,170	300	3,529,368
90	128	2,147,047	293	3,424,888
91	106	1,568,672	230	2,534,753
92	73	982,074	211	2,624,095
93	68	787,707	155	1,622,644
94	41	566,315	129	1,625,822
95	28	422,804	108	1,178,514
96	17	218,515	72	776,478
97	11	149,793	44	533,587
98	5	91,298	29	265,123
99	4	59,133	26	297,968
100+	13	159,697	42	369,244
Total	35,224	\$ 878,807,329	38,329	\$ 675,414,030

## Appendix A: Detailed Tabulations of Member Data (continued)

**Table A-6: Number and Annual Retirement Allowances of Retired Members (Healthy at Retirement) and Survivors of Deceased Members Distributed by Annuity Type as of December 31, 2022**

Annuity Type	Men		Women	
	Number	Allowances	Number	Allowances
0: Maximum	10,713	\$ 241,428,245	18,850	\$ 324,645,857
1: Option 1: 10-yr guaranteed	127	2,831,186	163	2,028,344
2: Option 2: 100% joint and survivor	8,751	219,530,517	2,661	43,475,063
3: Option 3: 50% joint and survivor	1,995	54,183,824	1,199	23,831,669
4: Option 4: Social security leveling	2,566	63,526,080	3,349	67,244,358
5: Option 5-2: 100% joint and survivor	22	462,896	4	30,203
6: Option 5-3: 50% joint and survivor	7	215,494	8	160,897
7: Option 6-2: 100% joint and surv w / pop-up	7,456	213,008,833	3,296	69,586,185
8: Option 6-3: 50% joint and surv w / pop-up	2,300	69,087,671	2,069	49,939,427
9: Special	3	92,264	0	0
3: Survivor	1,284	14,440,319	6,730	94,472,027
Total	35,224	\$ 878,807,329	38,329	\$ 675,414,030

## Appendix A: Detailed Tabulations of Member Data (continued)

**Table A-7: Number and Annual Retirement Allowances of Retired Members (Disabled at Retirement) Distributed by Age of December 31, 2022**

Age	Men		Women	
	Number	Allowances	Number	Allowances
27	1	\$ 19,740	0	\$ 0
29	2	45,863	0	0
30	1	23,629	0	0
31	3	80,521	3	67,689
32	4	109,254	1	18,267
33	8	173,066	1	17,982
34	6	158,926	4	105,859
35	12	328,315	1	22,469
36	6	135,936	5	104,150
37	14	400,193	5	117,503
38	20	558,515	2	61,133
39	16	389,876	7	147,079
40	22	501,736	10	234,469
41	27	597,895	6	146,943
42	37	930,845	13	344,289
43	44	1,053,593	9	209,310
44	50	1,169,042	17	398,521
45	38	932,709	21	427,368
46	57	1,429,207	26	510,882
47	78	1,994,856	24	495,687
48	67	1,657,188	25	507,977
49	82	1,956,295	32	712,745
50	85	2,159,491	41	883,588
51	127	2,981,282	57	1,397,025
52	143	3,406,329	64	1,321,747
53	132	3,011,971	76	1,520,156
54	140	3,274,857	75	1,519,353
55	116	2,527,332	83	1,908,564
56	162	3,577,997	89	1,871,539
57	160	3,404,979	101	1,934,314
58	155	3,359,943	95	1,929,222
59	195	4,082,879	130	2,672,395
60	193	3,908,600	106	1,953,111
61	196	3,657,033	145	2,704,467
62	179	3,280,925	138	2,473,826
63	177	3,219,544	153	2,816,404
64	155	2,910,935	165	2,712,568
65	164	2,859,177	140	2,362,797

## Appendix A: Detailed Tabulations of Member Data (continued)

**Table A-7: Number and Annual Retirement Allowances of Retired Members (Disabled at Retirement) Distributed by Age of December 31, 2022 (continued)**

Age	Men		Women	
	Number	Allowances	Number	Allowances
66	185	\$ 3,417,533	146	\$ 2,318,870
67	175	3,257,762	155	2,512,996
68	186	3,531,635	126	2,118,827
69	168	3,489,183	131	2,123,715
70	155	3,214,894	108	1,699,806
71	185	4,237,727	129	2,064,773
72	157	3,341,053	87	1,455,137
73	153	3,499,271	96	1,425,669
74	148	3,021,099	95	1,470,334
75	134	2,861,864	87	1,220,771
76	123	2,591,025	84	1,232,602
77	91	1,898,845	70	964,013
78	96	1,934,625	62	827,472
79	61	1,225,744	64	800,473
80	62	1,266,135	54	730,737
81	40	831,021	27	290,708
82	45	801,995	37	536,608
83	22	369,523	32	405,165
84	23	441,594	24	299,750
85	17	280,426	15	191,564
86	17	365,738	15	168,015
87	15	264,572	14	129,854
88	7	108,089	1	22,059
89	10	142,114	7	56,215
90	4	58,973	1	3,072
91	5	63,739	4	23,709
92	2	24,643	4	45,197
93	3	48,231	3	27,224
95	1	23,072	1	5,376
Total	5,364	\$ 112,882,599	3,549	\$ 61,802,109

## Appendix A: Detailed Tabulations of Member Data (continued)

**Table A-8: Number and Annual Retirement Allowances of Retired Members (Disabled at Retirement) Distributed by Annuity Type of December 31, 2022**

Annuity Type	Men		Women	
	Number	Allowances	Number	Allowances
0: Maximum	3,622	\$ 80,112,718	3,013	\$ 53,042,573
1: Option 1: 10-yr guaranteed	80	1,713,991	40	634,065
2: Option 2: 100% joint and survivor	460	8,053,238	105	1,568,413
3: Option 3: 50% joint and survivor	337	6,078,951	85	1,357,090
4: Option 4: Social security leveling	7	179,430	7	127,932
5: Option 5-2: 100% joint and surv.	3	44,814	0	0
6: Option 5-3: 50% joint and surv.	6	66,889	1	7,003
7: Option 6-2: 100% joint and surv w / pop-up	425	8,115,660	124	2,058,788
8: Option 6-3: 50% joint and surv w / pop-up	419	8,392,225	174	3,006,245
9: Special	5	124,682	0	0
Total	5,364	\$ 112,882,598	3,549	\$ 61,802,109

## Appendix A: Detailed Tabulations of Member Data (continued)

**Table A-9: Number and Annual Retirement Allowances of Retired Members and Survivors of Deceased Members Distributed by Amount of Annual Retirement Allowance as of December 31, 2022**

Amount of Annual Retirement Allowance	Number of Retired Members and Survivors *	Sum of Annual Retirement Allowance
\$0 - \$4,999	9,917	\$ 30,976,639
\$5,000 - \$9,999	14,001	104,765,154
\$10,000 - \$14,999	12,714	158,349,491
\$15,000 - \$19,999	10,736	187,197,535
\$20,000 - \$24,999	9,101	204,248,949
\$25,000 - \$29,999	7,399	202,938,059
\$30,000 - \$34,999	5,772	186,983,500
\$35,000 - \$39,999	4,349	162,631,244
\$40,000 - \$44,999	2,999	126,970,667
\$45,000 - \$49,999	2,059	97,475,225
\$50,000 & over	4,156	266,369,602
<b>Total</b>	<b>83,203</b>	<b>\$ 1,728,906,065</b>

\* Includes 737 members with a separate DC transfer amount payable.

# Appendix B: Summary of Main Benefit and Contribution Provisions

The following summary presents the main benefit and contribution provisions of the system, as interpreted in preparing the actuarial valuation. Items in parentheses in the text are the provisions applicable only to law enforcement officers.

## Average final compensation

The average annual compensation during the four consecutive years of membership service producing the highest such average.

## Membership service

Service represented by regular contributions.

## Prior service

Service prior to the date of participation of the employer for which credit is allowed.

## Creditable service

The sum of prior service plus membership service and may also include certain special purchased service.

## Benefits

### Unreduced Retirement Allowance

#### Condition for Allowance

An unreduced retirement allowance is payable to any member who retires from service after attaining age 65 (55), or after age 60 and completion of 25 years of creditable service, or after completion of 30 years of creditable service.

#### Amount of Allowance

1.85% of average final compensation multiplied by the number of years of creditable service.

### Reduced Retirement Allowance

#### Condition for Allowance

A reduced retirement allowance is payable to any member who retires from service after attaining age 60 (50) and completed 5 (15) years of creditable service (or in the case of a firefighter or rescue squad worker, after attaining age 55 and five years of creditable service), but prior to becoming eligible for the unreduced retirement allowance.

#### Amount of Allowance

The member's reduced retirement allowance is equal to 1.85% of average final compensation multiplied by the number of years of creditable service at date of retirement reduced by 1/4 of 1% for each month by which the member's age at retirement is less than age 65 (55).

If a firefighter has not attained age 60 nor completed 30 or more years of service at the line of retirement, his or her allowance is the actuarial equivalent of the allowance payable at age 60.

OR

#### Condition for Allowance

A reduced retirement allowance is payable to any member who retires from service after age 50 and completion of 20 (15) years of creditable service but prior to becoming eligible for a reduced or unreduced retirement allowance.



## **Appendix B: Summary of Main Benefit and Contribution Provisions (continued)**

### Amount of Allowance

The member's reduced retirement allowance is equal to 1.85% of average final compensation multiplied by the number of years of creditable service at date of retirement reduced by the lesser of:

- (i)  $5/12$  ( $1/3$ ) of 1% for each month by which his or her age is less than 60 (55), plus, if the member is not a law enforcement officer,  $1/4$  of 1% for each month by which his or her age is less than 65.
- (ii) 5% times the difference between 30 years and his or her creditable service at retirement.

OR

### Condition for Allowance

A reduced retirement allowance is payable to any law enforcement officer who retires from service at any age with 25 years of service (15 years as an officer), but prior to becoming eligible for a reduced or unreduced retirement allowance.

### Amount of Allowance

The member's reduced retirement allowance is equal to 1.85% of average final compensation multiplied by the number of years of creditable service at date of retirement reduced by the lesser of:

- (i)  $1/3$  of 1% for each month by which his or her age is less than 55,
- (ii) 5% times the difference between 30 years and creditable service at retirement plus 4% times the difference between age 50 and the member's age at retirement.

## **Disability Retirement Allowance**

### Condition for Allowance

A disability retirement allowance may be granted to a member who becomes totally and permanently incapacitated for duty before becoming eligible for an unreduced retirement allowance, and who had five or more years of creditable service. A law enforcement officer, firefighter or rescue squad worker who becomes totally and permanently disabled as the natural and proximate result of an accident occurring in the actual performance of duty may also be retired on a disability retirement allowance.

### Amount of Allowance

On retirement for disability a member receives a service retirement allowance if he or she has attained age 65 (55) or upon attaining age 60 and completion of 25 years of creditable service or completion of 30 years of creditable service; otherwise the allowance is equal to the retirement allowance calculated on the basis of average final compensation at time of disability retirement and service projected to the earliest age at which the member would have qualified for an unreduced retirement allowance except that any member who had five years of creditable service on or before July 1, 1982 shall have his or her service projected to age 65.

## **Deferred and Early Retirement Allowance**

Any member who separates from service after completing five or more years of membership service prior to becoming eligible for an unreduced or reduced retirement allowance and who leaves his or her total accumulated contributions in the system may receive a deferred retirement allowance, beginning at age 60 (55), computed in the same way as a reduced retirement allowance, or, if the member has 20 (15) or more years of service, at age 50 computed in the same way as a reduced service retirement allowance, on the basis of creditable service and compensation to the date of separation.

## **Appendix B: Summary of Main Benefit and Contribution Provisions (continued)**

### **Return of Contributions**

Upon the withdrawal of a member without a retirement allowance and upon request, the member's accumulated contributions are returned to him or her, together with accumulated regular interest.

Upon the death of a member before retirement, his or her accumulated contributions, together with the full accumulated regular interest thereon, are paid to the estate or to person(s) designated by the member provided no survivor's alternate benefit is payable.

The current interest rate on member contributions is 4%.

### **Survivor's Alternate Benefit**

Upon the death of a member in service who has attained age 60 (55) and completed five years of creditable service, or completed 20 years of creditable service (or attained age 50 and completed 15 years of creditable service), the designated beneficiary may elect to receive a benefit equal to that which would have been payable under the provisions of Option 2 had the member retired on the first day of the month following his or her death and elected such option, in lieu of the member's accumulated contributions, provided the member had not instructed the Board of Trustees in writing that he or she did not wish the alternate benefit to apply. Law enforcement officers, firefighters and rescue squad workers are eligible for this benefit at any age after 15 years of creditable service if death occurs in the line of duty.

### **Death After Retirement**

Upon the death of a beneficiary who did not retire under an effective election of Options 2, 3, 5, or 6, an amount equal to the excess, if any, of his or her accumulated contributions at retirement over the retirement allowance payments received is paid to a designated person or to the beneficiary's estate.

Upon the death of the survivor of a beneficiary who retired under an effective election of Options 2, 3, 5, or 6, an amount equal to the excess, if any, of the beneficiary's accumulated contributions at retirement over the total retirement allowance payments received is paid to such other person designated by the beneficiary or to the beneficiary's estate.

Upon the death of a beneficiary, a benefit may be provided by the Retiree's Contributory Death Benefit Plan.

### **Other Death Benefits**

Upon the death of a member in service, other benefits may be provided by the Death Benefit Plan or Separate Insurance Benefit Plan for Law Enforcement Officers.

### **Optional Arrangements at Retirement**

In lieu of the full retirement allowances any member may, until the first payment of his or her allowance becomes normally due, elect to receive a reduced retirement allowance equal in value to the full allowance with the provision that:

- Option 1 A member retiring prior to July 1, 1993, may elect that at his or her death within 10 years from his or her retirement date, an amount equal to his or her accumulated contributions at retirement, less 1/120 for each month he or she has received a retirement allowance, is paid to his or her estate, or to person(s) designated by the member, or
- Option 2 At the death of the member, his or her allowance shall be continued throughout the life of such other person as the member shall have designated at the time of his or her retirement, or
- Option 3 At the death of the member, one-half of his or her allowance shall be continued throughout the life of such other person as the member shall have designated at the time of his or her retirement.

## Appendix B: Summary of Main Benefit and Contribution Provisions (continued)

- Option 4 A member may elect to receive a retirement allowance in such amount that, together with his or her Social Security benefit, he or she will receive approximately the same income per annum before and after the earliest age at which he or she becomes eligible to receive the Social Security benefit.
- Option 5 A member retiring prior to July 1, 1993 may elect to receive a reduced retirement allowance under the provisions of Option 2 or Option 3 in conjunction with the provisions of Option 1.
- Option 6 The member may elect Option 2 or 3 with the added provision that should the designated beneficiary predecease the member, the allowance which would have been payable to the member had he or she not elected the option will be payable thereafter.

### Post-Retirement Increases in Allowance

Future increases in allowances may be granted by the Board of Trustees or the State in accordance with G.S. 128-27(k). The Board of Trustees may authorize one-time pension supplements in accordance with G.S. 128-27(k1).

### Service Reciprocity

For the purpose of determining eligibility for a deferred, reduced or unreduced service retirement allowance, the membership and creditable service of a member shall include such prior service earned as a member of the Teachers' and State Employees' Retirement System (TSERS), the Consolidated Judicial Retirement System (CJRS), or the Legislative Retirement System (LRS). In addition, if the member's accumulated contributions and reserves are transferred from the prior System to this System, the creditable service earned as a member of the prior System may be included for purposes of determining the amount of benefits payable under this System.

### Military Service

For periods of active duty in the United States military may be counted as creditable service if the member was an employee upon entering the military and returned to employment within two years of discharge or for a period of 10 additional years.

### Service Purchases

Additional creditable service may include service that the member purchased to restore a period of service for which the member

- 1) received a refund of contributions,
- 2) had a leave of absence for educational purposes, extended illness or parental or maternity reasons,
- 3) had full-time temporary or part-time local or State government employment,
- 4) was in a probationary or waiting period with a unit of the LGERS,
- 5) had a leave of absence under Workers' Compensation,
- 6) performed service with a unit of local government not covered by LGERS,
- 7) performed service with the federal government or to another state not covered by any other retirement system,
- 8) performed service with a public community service entity funded entirely with federal funds,
- 9) performed service as a member of the General Assembly,
- 10) performed service as a member of a charter school not participating in the system,
- 11) was employed by The University of North Carolina and participated in the Optional Retirement Program but not eligible to receive any benefits from that program, or
- 12) performed service which was omitted by reason of error.

## **Appendix B: Summary of Main Benefit and Contribution Provisions (continued)**

### **Unused Sick Leave**

Unused sick leave counts as creditable service at retirement. Sick leave which was converted from unused vacation leave is also creditable. One month of credit is allowed for each 20 days of unused sick leave, plus an additional month for any part of 20 days left over.

### **Transfer of Defined Contribution Balances**

(Special Retirement Allowances)

A member may make a one-time election to transfer any portion of their eligible accumulated contributions to this plan on or after retirement. Eligible accumulated contributions are those from the Supplemental Retirement Income Plan or Public Employee Deferred Compensation Plan, not including Roth after-tax contributions. A member who became a member of the Supplemental Retirement Income Plan prior to retirement and who remains a member of the Supplemental Retirement Income Plan may also make a one-time election to transfer eligible balances, not including any Roth after-tax contributions, from any of the following plans to the Supplemental Retirement Income Plan, subject to the applicable requirements of the Supplemental Retirement Income Plan, and then through the Supplemental Retirement Income Plan to this Retirement System:

- (1) A plan participating in the North Carolina Public School Teachers' and Professional Educators' Investment Plan.
- (2) A plan described in section 403(b) of the Internal Revenue Code.
- (3) A plan described in section 457(b) of the Internal Revenue Code that is maintained by a state, political subdivision of a state, or any agency or instrumentality of a state or political subdivision of a state.
- (4) An individual retirement account or annuity described in Section 408(a) or 408(b) of the Internal Revenue Code that is eligible to be rolled over and would otherwise be includible in gross income.
- (5) A tax-qualified plan described in section 401(a) or 403(a) of the Internal Revenue Code.

The member may elect to convert the accumulated contributions to a life annuity with or without annual increases equal to the annual increase in the U.S. Consumer Price Index. Any ad-hoc COLA increases granted will not apply to benefits under this section. A member may elect Options 2, 3, or 6 under the Plan and may also elect either a guaranteed number of months of payments or a guarantee of total payments at least equal to the amount of contributions transferred to the Plan. In addition, any transfer may be paid in whole or in part with employer contributions paid directly to the Retirement System at the time of transfer.

### **Contributions**

#### **By Members**

Members contribute 6% of compensation.

#### **By Employers**

Participating employers make annual contributions consisting of a normal contribution and an accrued liability contribution. The normal contribution covers the liability on account of current service and is determined by the actuary after each valuation.

The accrued liability contribution rate is determined based on eliminating the unfunded actuarial accrued liability over a 12-year period. Some employers have additional prior service contributions.

The minimum total employer contribution rate is 6.00%.

### **Changes Since Prior Valuation**

None.

# Appendix C: Actuarial Assumptions and Methods

Assumptions are based on the experience investigation prepared as of December 31, 2019 and adopted by the Board of Trustees on January 28, 2021 for use beginning with the December 31, 2020 annual actuarial valuation.

### Interest Rate

6.50% per annum, compounded annually.

### Price Inflation

2.50% per annum, compounded annually.

### Real Wage Growth

0.75% per annum.

### Payroll Growth

3.25% per annum.

### Separations From Active Service

Representative values of the assumed rates of separation from active service are as follows:

#### Annual Rates of Withdrawal

Up to five years of membership						
Service	General Employees		Firefighters & Rescue Squad Workers		Law Enforcement Officers	
	Male	Female	Male	Female	Male	Female
0	0.1100	0.1100	0.0750	0.0750	0.0900	0.0900
1	0.1750	0.1750	0.1250	0.1250	0.0875	0.0875
2	0.1500	0.1550	0.1100	0.1100	0.0900	0.0900
3	0.1250	0.1300	0.1000	0.1000	0.0925	0.0925
4	0.1050	0.1150	0.1000	0.1000	0.0725	0.0725

After five years of membership						
Service	General Employees		Firefighters & Rescue Squad Workers		Law Enforcement Officers	
	Male	Female	Male	Female	Male	Female
25	0.1200	0.1750	0.0700	0.0700	0.1000	0.1000
30	0.0750	0.1100	0.0700	0.0700	0.0600	0.0600
35	0.0550	0.0900	0.0500	0.0500	0.0600	0.0600
40	0.0550	0.0700	0.0400	0.0400	0.0400	0.0400
45	0.0425	0.0500	0.0350	0.0350	0.0300	0.0300
50	0.0425	0.0450	0.0500	0.0500	0.0450	0.0450
55	0.0425	0.0450	0.0500	0.0500	0.0450	0.0450
60	0.0425	0.0450	0.0500	0.0500		

## Appendix C: Actuarial Assumptions and Methods (continued)

### Annual Rates of Mortality for Employees

(Base rates using Pub-2010 Amount weighted)

Age	General Employees		Firefighters & Rescue Squad Workers		Law Enforcement Officers	
	Male	Female	Male	Female	Male	Female
25	0.00028	0.00009	0.00037	0.00020	0.00037	0.00020
30	0.00036	0.00015	0.00041	0.00027	0.00041	0.00027
35	0.00047	0.00023	0.00047	0.00036	0.00047	0.00036
40	0.00066	0.00036	0.00059	0.00049	0.00059	0.00049
45	0.00098	0.00056	0.00082	0.00067	0.00082	0.00067
50	0.00149	0.00083	0.00120	0.00091	0.00120	0.00091
55	0.00219	0.00123	0.00175	0.00123	0.00175	0.00123
60	0.00319	0.00186	0.00264	0.00168	0.00264	0.00168
65	0.00468	0.00296	0.00410	0.00228	0.00410	0.00228
70	0.00703	0.00489	0.00766	0.00454	0.00766	0.00454
74	0.01001	0.00731	0.01263	0.00787	0.01263	0.00787

### Annual Rates of Disability

Age	General Employees		Firefighters & Rescue Squad Workers		Law Enforcement Officers	
	Male	Female	Male	Female	Male	Female
25	0.00040	0.00050	0.00060	0.00060	0.00060	0.00250
30	0.00050	0.00050	0.00100	0.00090	0.00100	0.00300
35	0.00050	0.00050	0.00070	0.00240	0.00200	0.00400
40	0.00100	0.00050	0.00400	0.00380	0.00300	0.00500
45	0.00200	0.00150	0.00400	0.00480	0.00400	0.00600
50	0.00300	0.00300	0.00800	0.00760	0.00400	0.00700
55	0.00500	0.00450	0.01200	0.01760	0.00400	0.00700
60	0.00650	0.00450	0.01500	0.02760	0.00400	0.00700
64	0.00650	0.00450	0.01500	0.03000	0.00400	0.00700

### Annual Rates of Retirement

General Employees

Male Age	Service						
	5	10	15	20	25	30	35
50				0.030	0.055	0.400	0.400
55				0.030	0.055	0.250	0.250
60	0.080	0.070	0.070	0.075	0.200	0.225	0.225
65	0.250	0.250	0.275	0.325	0.300	0.300	0.300
70	0.200	0.250	0.200	0.275	0.300	0.300	0.300
75	0.250	0.200	0.300	0.275	0.300	0.300	0.300
80	1.000	1.000	1.000	1.000	1.000	1.000	1.000

# Appendix C: Actuarial Assumptions and Methods (continued)

## Annual Rates of Retirement (continued)

General Employees (continued)

Female Age	Service						
	5	10	15	20	25	30	35
50				0.035	0.050	0.450	0.450
55				0.050	0.055	0.300	0.300
60	0.080	0.090	0.070	0.100	0.250	0.250	0.250
65	0.250	0.250	0.350	0.350	0.350	0.300	0.300
70	0.200	0.250	0.225	0.300	0.200	0.250	0.250
75	0.200	0.200	0.225	0.300	0.200	0.250	0.250
80	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Firefighters & Rescue Squad Workers

Age	Service						
	5	10	15	20	25	30	35
50				0.0325	0.0425	0.5000	0.5000
55	0.1200	0.0575	0.0575	0.0325	0.0425	0.4000	0.4000
60	0.1000	0.0575	0.0575	0.1250	0.3500	0.4000	0.4000
65	0.1000	0.2500	0.2500	0.2500	0.3500	0.3250	0.3250
70	0.3200	0.2500	0.2500	0.2500	0.3500	0.3250	0.3250
75	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Law Enforcement Officers

Age	Service						
	5	10	15	20	25	30	35
50			0.040	0.035	0.030	0.825	0.825
55	0.150	0.225	0.300	0.350	0.600	0.500	0.500
60	0.150	0.150	0.125	0.250	0.325	0.250	0.250
65	0.175	0.200	0.250	0.250	0.375	0.300	0.300
70	0.175	0.300	0.350	0.200	0.375	0.275	0.275
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## Salary Merit Increases

Total assumed salary increases are these merit rates added to the wage inflation assumption of 3.25% (2.50% price inflation plus 0.75% real wage growth). Representative values of the assumed annual rates of salary merit increases are as follows:

### Annual Rates of Salary Increase

Service	General Employees	Firefighters & Rescue Squad Workers	Law Enforcement Officers
0	5.00%	4.75%	4.50%
5	2.70%	2.65%	2.60%
10	1.73%	1.68%	1.81%
15	1.08%	1.03%	1.36%
20	0.69%	0.64%	1.10%
25	0.55%	0.50%	0.85%
30	0.55%	0.50%	0.60%
35	0.00%	0.50%	0.35%
>=40	0.00%	0.00%	0.00%

## Appendix C: Actuarial Assumptions and Methods (continued)

### Post-Retirement Mortality

Representative values of the assumed post-retirement mortality rates as of 2010 (the most recent developed Public Pension mortality tables) prior to any mortality improvements are as follows:

#### Annual Rate of Post-Retirement Mortality (members healthy at retirement)

Age	General Employees		Firefighter, Rescue Squad Workers, & Law Enforcement Officers	
	Male	Female	Male	Female
55	0.00477	0.00286	0.00327	0.00279
60	0.00684	0.00384	0.00549	0.00482
65	0.01064	0.00613	0.00957	0.00832
70	0.01828	0.01063	0.01711	0.01438
75	0.03227	0.01883	0.03085	0.02483
80	0.05810	0.03360	0.05571	0.04287

#### Annual Rate of Death After Retirement

Age	(Contingent Survivors of Deceased members)		(Members Disabled at Retirement)			
	All Survivors		General Employees		Firefighters, Rescue Squad Workers, & Law Enforcement Officers	
	Male	Female	Male	Female	Male	Female
55	0.01147	0.00742	0.02355	0.01692	0.01818	0.01587
60	0.01450	0.00975	0.02785	0.01914	0.02280	0.01833
65	0.02086	0.01332	0.03524	0.02178	0.02677	0.02051
70	0.03221	0.01931	0.04599	0.02706	0.03353	0.02450
75	0.04971	0.02946	0.06347	0.03718	0.04344	0.03239
80	0.07802	0.04698	0.09259	0.05517	0.05921	0.04678

### Mortality Assumption

All mortality rates use Pub-2010 amount-weighted tables.

### Mortality Projection

All mortality rates are projected from 2010 using generational improvement with Scale MP-2019.

### Deaths After Retirement (General Employees)

Mortality rates are based on the General Mortality Table for Retirees. Rates for male members are first Set Forward 2 years, then are multiplied by 96% for ages under 81, and increase until reaching 100% at age 85 and above. Rates for female members are 100% for ages under 92, and increase until reaching 110% at age 94 and above. Because the retiree tables have no rates prior to age 50, the General Mortality Table for Employees is used for ages less than 50.



# Appendix C: Actuarial Assumptions and Methods (continued)

## Deaths After Retirement (Firefighters, Rescue Squad Workers & Law Enforcement Officers)

Mortality rates are based on the Safety Mortality Table for Retirees. Rates for all members are multiplied by 97% and Set Forward by 1 year. Because the retiree tables have no rates prior to age 45, the Safety Mortality Table for Employees is used for ages less than 45.

## Deaths After Retirement (Survivors of Deceased Members)

Mortality rates are based on the Below- median Teachers Mortality Table for Contingent Survivors. Rates for male members are Set Forward 3 years. Rates for female members are Set Forward 1 year. Because the contingent survivor tables have no rates prior to age 45, the Below-median Teachers Mortality Table for Employees is used for ages less than 45.

## Deaths After Retirement (Disabled Members at Retirement)

Mortality rates are based on the General Mortality Table for Disabled Retirees. Rates for General Employee male members are Set Forward 3 years, while Firefighter, Rescue Squad Worker & Law Enforcement Officer male members are Set Back 3 years. Rates for General Employee female members are Set Back 1 year, while Firefighter, Rescue Squad Worker & Law Enforcement Officer female members are Set Back 3 years.

## Deaths Prior to Retirement

Mortality rates for General Employees are based on the General Mortality Table for Employees. Mortality rates for Firefighters, Rescue Squad Workers & Law Enforcement Officers are based on the Safety Mortality Table for Employees.

## Line-of-Duty Deaths

50% of deaths prior to retirement for firefighters, rescue squad workers and law enforcement officers are assumed to occur in the line-of-duty.

## Timing of Assumptions

All withdrawals, deaths, disabilities, retirements and salary increases are assumed to occur July 1 of each year. The timing of retirement changes from mid-year to beginning of year at and after the 100% retirement age.

## Leave Conversions

Sick leave can be converted to increase creditable service and used to meet the eligibility requirements for retirement. Unused vacation leave can be converted to increase creditable service or compensation, but does not add to the eligibility service. The assumed impact of these conversions is shown in the table below.

	General		Fire & Rescue Squad		Law Enforcement	
	Male	Female	Male	Female	Male	Female
Increase in AFC (percentage) – Unused Vacation Leave	1.50%	1.50%	1.75%	1.75%	1.50%	1.50%
<b>Increase in Creditable Service (years) - Unused Sick Leave</b>						
Credited	0.80	0.60	1.20	1.20	1.10	1.10
Eligibility	1.00	1.00	1.00	1.00	1.00	1.00

## Appendix C: Actuarial Assumptions and Methods (continued)

### Liability for Inactive Members

For inactive members with five or more years of service, without actual deferred benefit amounts a deferred benefit amount is estimated based on available data and contribution balances projecting backwards assuming 4% salary growth and 4% interest on contribution balances where necessary. For inactive members with less than five years of service the liability is equal to the member's accumulated contributions.

### Administrative Expenses

0.13% of payroll for general employees and firefighters is added to the normal cost.

### Marriage Assumption

100% married with male spouses three years older than female spouses.

### Missing Gender Code

For members reported on the data without a gender code, we use the prior year's code where available or assign a code.

### Reported Compensation

Calendar year compensation as furnished by the system's office.

### Valuation Compensation

Reported compensation adjusted to reflect the assumed rate of pay as of the valuation date and the probability of decrement during the year.

### Compensation Limits

No compensation limits are applied.

### Actuarial Cost Method

Entry age normal cost method. Entry age is established on an individual basis.

### Normal Cost

Normal cost rate reflects the impact of new entrants during the year.

### Amortization Period

12-year closed, level-dollar amount. The first amortization base was created for the contribution payable for fiscal year ending 2018.

### Asset Valuation Method

Actuarial value, as developed in Table 7. The actuarial value of assets is based upon a smoothed market value method. Under this method, asset returns in excess of or less than the expected return on market value of assets will be reflected in the actuarial value of assets over a five-year period. The calculation of the Actuarial Value of Assets is based on the following formula:

$$MV - 80\% \times G/(L)_1 - 60\% \times G/(L)_2 - 40\% \times G/(L)_3 - 20\% \times G/(L)_4$$

MV = the market value of assets as of the valuation date

$G/(L)_i$  = the asset gain or (loss) for the i-th year preceding the valuation date

## **Appendix C: Actuarial Assumptions and Methods (continued)**

### **Changes Since Prior Valuation:**

The assumptions and methods used for the December 31, 2021 actuarial valuation are based on the experience study prepared as of December 31, 2019 and adopted by the Board of Trustees on January 28, 2021. No changes have been made since the prior valuation.

## Appendix D: Additional Disclosures

Table D-1 illustrates the sensitivity of certain valuation results to changes in the discount rate on a market value of assets basis. Table D-2 provides an estimate of future market value of asset returns based on the current portfolio structure and summarized in the “NCRS Investment policy Statement Review” presentation prepared by the DST Investment Management Division and dated May 25, 2022.

Section 6(c) of Session Law 2016-108 requires that the actuarial valuation report for certain Retirement Systems provide the valuation results using a 30-year treasury rate as of December 31 of the year of the valuation as the discount rate. This is 3.97% at December 31, 2022 and has been used as the lower bound of the sensitivity analysis presented. The range between the current discount rate (6.50%) and the 30-year treasury rate (3.97%) was used to establish an upper bound for sensitivity analysis (9.03%). The remaining rates illustrated represent mid-points between the selected rates. Based on the analysis performed by Callan for DST’s Investment Management Division in 2022, the lower bound of 3.97% returns is 75% to 95% likely to be achieved on average over the next 30 years, while the upper bound of 9.03% is more than 5% likely to be achieved on average over the next 30 years.

**Table D-1: Sensitivity of Valuation Results as of December 31, 2022**

Discount Rate	3.97%	5.24%	6.50%	7.77%	9.03%
Market Value of Assets	\$ 29,655,407,814	\$ 29,655,407,814	\$ 29,655,407,814	\$ 29,655,407,814	\$ 29,655,407,814
Actuarial Accrued Liability	\$ 51,383,931,537	\$ 43,277,433,606	\$ 37,089,528,129	\$ 32,212,626,543	\$ 28,364,875,584
Unfunded Accrued Liability (UAL)	\$ 21,728,523,723	\$ 13,622,025,792	\$ 7,434,120,315	\$ 2,557,218,729	\$ (1,290,532,230)
Funded Ratio	57.7%	68.5%	80.0%	92.1%	104.5%
20-Year Amortization of UAL	\$ 1,657,879,137	\$ 1,173,862,857	\$ 718,544,083	\$ 275,906,086	N/A
(as % of general local revenue)	7.6%	5.4%	3.3%	1.3%	N/A

Other than the discount rate, these results are based on the other economic and demographic assumptions presented in the report. For purposes of simplicity in this disclosure, no adjustments to the valuation assumption for inflation were reflected in the sensitivities above. The statute also requires that the actuarial valuation report show the results using a market value of assets basis. The “funded ratio” and “unfunded actuarial accrued liability” in Table D-1 are based upon the market value of assets. In order to alleviate volatility, future employer contributions are determined based on the actuarial value of assets, which smooths market value returns.

None of the liability amounts shown are intended to imply the amount that might represent the cost of any settlement of the plan’s obligations. The various caveats, constraints, and discussions presented earlier in the report apply to these results as well.

**Table D-2: Estimate of Future Asset Returns**

Horizon	95% Chance (19 out of every 20 scenarios)	75% Chance (3 out of every 4 scenarios)	50% Chance (1 out of every 2 scenarios)	25% Chance (1 out of every 4 scenarios)	5% Chance (1 out of every 20 scenarios)
10 Years (2032)	0.4%	3.6%	5.7%	7.8%	11.1%
30 Years (2052)	3.3%	5.1%	6.3%	7.6%	9.3%

This analysis was commissioned by the Investment Management Division and presented by Callan to the Investment Advisory Committee on February 23, 2022.

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers

The table below provides the total contribution rates payable for the year beginning July 1, 2024 by all participating employers.

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
	70505	Eastern Band of Cherokee Indians		15.24%		0.14%		
	72265	Piedmont Triad Airport Authority		15.24%		0.14%		
	72593	Seagrove, Town of		15.24%		0.14%		
	72657	Sparta, Town of		15.24%		0.14%		
90001	73190	Yancey County	13.65%	15.24%	0.05%	0.14%		
90002		Yancey Soil & Water Cons	13.60%					
90011	70330	Burnsville, Town of	13.67%	15.24%	0.07%	0.14%		
90092		Martin-Tyrrell-Washington Dist Health Dept	13.64%		0.04%			
90096		Albemarle Regional Health Services	13.64%		0.04%			
90098		Toe River Health District	13.64%		0.04%			
90099		Appalachian District Health Dept	13.63%		0.03%			
90101	70020	Alamance County	13.64%	15.24%	0.04%	0.14%		
90111	70320	Burlington, City of	13.65%	15.24%	0.05%	0.14%		
90114		Mebane, City of	24.10%	25.74%		0.14%	2,278,747	6/30/2025
90117		Alamance Municipal A.B.C. Board	13.69%		0.09%			
90121	71080	Graham, City of	13.60%	15.24%		0.14%		
90131	70880	Elon, Town of	13.64%	15.24%	0.04%	0.14%		
90141	71245	Haw River, Town of	13.60%	15.24%		0.14%		
90151		Alamance, Village of	13.60%					
90161		Green Level, Town of	13.60%					
90201	70032	Alexander County	13.64%	15.24%	0.04%	0.14%		
90211	72775	Taylorsville, Town of	13.60%	15.24%		0.14%		
90301	70035	Alleghany County	13.65%	15.24%	0.05%	0.14%		
90305		Northwestern Regional Library	13.70%		0.10%			
90307		Sparta A.B.C. Board	14.13%				1,779	12/31/2028
90401	70040	Anson County	13.65%	15.24%	0.05%	0.14%		
90411	72930	Wadesboro, Town of	13.66%	15.24%	0.06%	0.14%		
90413		Wadesboro Housing Authority	13.68%		0.08%			
90417		Wadesboro A.B.C. Board	13.74%		0.14%			
90421	71584	Lilesville, Town of	13.67%		0.07%			
90431	72345	Polkton, Town of	13.74%	15.24%	0.14%	0.14%		
90441		Peachland, Town of	13.60%					
90451		Ansonville, Town of	13.60%					
90461		Morven, Town of	13.60%					
90501	70065	Ashe County	13.65%	15.24%	0.05%	0.14%		
90507		West Jefferson A.B.C. Board	16.82%				17,946	6/30/2026
90511	71447	Jefferson, Town of	13.60%	15.24%		0.14%		
90521	73025	West Jefferson, Town of	13.60%	15.24%		0.14%		
90601	70090	Avery County	13.67%	15.24%	0.07%	0.14%		
90602	70090	Avery County Fire Commission	19.85%				243,671	6/30/2033

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
90605		Avery-Mitchell-Yancey Reg Library	13.65%		0.05%			
90611	70110	Banner Elk, Town of	13.60%	15.24%		0.14%		
90617		High Country A.B. C. Board	13.64%		0.04%			
90621	72032	Newland, Town of	13.60%	15.24%		0.14%		
90631	70146	Beech Mountain, Town of	13.60%	15.24%		0.14%		
90641	70860	Elk Park, Town of	13.60%					
90651	72724	Sugar Mountain, Town of	13.60%	15.24%		0.14%	98,651	6/30/2024
90701	70130	Beaufort County	13.63%	15.24%	0.03%	0.14%		
90704		Beaufort County A.B.C. Board	13.68%	15.24%	0.08%	0.14%		
90705		B.H.M. Regional Library	13.71%		0.11%			
90709		Mideast Commission	13.64%		0.04%			
90711	72990	Washington, City of	13.65%	15.24%	0.05%	0.14%		
90721	70085	Aurora, Town of	13.74%		0.14%			
90731	70147	Belhaven, Town of	13.60%	15.24%		0.14%		
90741		Washington Park, Town of	13.60%					
90751	70525	Chocowinity, Town of	13.60%	15.24%		0.14%		
90801	70180	Bertie County	13.60%	15.24%		0.14%		
90804		Bertie County A.B.C. Board	13.68%		0.08%			
90805		Albemarle Regional Library	13.72%		0.12%			
90808		Bertie-Martin Regional Jail Comm	13.65%		0.05%			
90811	70082	Aulander, Town of	13.64%		0.04%			
90812	73122	Windsor, Town of	13.60%	15.24%		0.14%		
90813	70575	Colerain, Town of	13.85%		0.25%			
90861	71556	Lewiston Woodville, Town of	13.60%				996	6/30/2024
90901	70210	Bladen County	13.65%	15.24%	0.05%	0.14%		
90911	70850	Elizabethtown, Town of	13.66%	15.24%	0.06%	0.14%		
90917		Elizabeth A.B.C. Board	13.60%					
90918		South Eastern Economic Development Comm	13.62%		0.02%			
90921	73050	White Lake, Town of	13.65%	15.24%	0.05%	0.14%		
90931	70537	Clarkton, Town of	13.65%		0.05%			
90941	70215	Bladenboro, Town of	13.60%	15.24%		0.14%		
91001	70280	Brunswick County	13.64%	15.24%	0.04%	0.14%		
91002	71540	Leland, Town of	13.60%	15.24%		0.14%		
91003		Brunswick Co Health Dept	13.63%		0.03%			
91004		Brunswick County A.B.C. Board	13.60%					
91006		Brunswick Co Dept of Social Services	13.63%		0.03%			
91007		Calabash A.B.C. Board	13.60%					
91008		Cape Fear Council of Governments	13.60%					
91009		Brunswick County Tourism Authority	14.61%				4,592	6/30/2025
91010		Calabash, Town of	13.60%					

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
91011	72650	Southport, City of	13.65%	15.24%	0.05%	0.14%		
91012	72076	Northwest, City of	13.60%	15.24%		0.14%		
91013		Southeast Brunswick Sanitary District	19.52%		0.11%		221,620	6/30/2039
91014	71375	Holden Beach, Town of	13.60%	15.24%		0.14%		
91015		Cape Fear Regional Jetport	14.04%		0.44%			
91017		Southport A.B.C. Board	13.76%		0.16%			
91020		Belville, Town of	13.60%					
91021	71630	Oak Island, Town of	13.66%	15.24%	0.06%	0.14%		
91024		Carolina Shores Town of	13.60%					
91026		Navassa, Town of	20.87%	22.51%		0.14%	162,807	6/30/2035
91027		Oak Island A.B.C. Bd	13.79%		0.19%			
91032		St James, Town of	13.60%					
91041	72723	Sunset Beach, Town of	13.63%	15.24%	0.03%	0.14%		
91042		Brunswick Regional Water and Sewer H2GO	13.60%					
91047		Sunset Beach A.B.C. Board	13.92%		0.32%			
91051	70405	Caswell Beach, Town of	13.60%	15.24%		0.14%		
91057		Shallotte A.B.C. Board	13.72%		0.12%			
91061	72135	Ocean Isle Beach, Town of	13.65%	15.24%	0.05%	0.14%		
91067		Ocean Isle Beach A.B.C.	13.70%		0.10%			
91071	70225	Boiling Spring Lakes, City of	13.65%	15.24%	0.05%	0.14%		
91077		Boiling Spring Lakes A.B.C. Board	13.60%					
91081	72597	Shallotte, Town of	13.60%	15.24%		0.14%		
91091	70107	Bald Head Island, Village of	13.65%	15.24%	0.05%	0.14%		
91101	70290	Buncombe County	13.63%	15.24%	0.03%	0.14%		
91102		Land-of-Sky Regional Council	13.64%		0.04%			
91104		Woodfin A.B.C. Commission	13.60%					
91107		Western NC Regional Air Quality	13.64%		0.04%			
91108		Metro Sewerage Dist of Buncombe County	13.64%		0.04%			
91109		Woodfin Sanitary Water and Sewer Dist	13.64%		0.04%			
91111	70190	Biltmore Forest, Town of	13.60%	15.24%		0.14%		
91120		West Buncombe Fire Dept	13.60%					
91121	70070	Asheville, City of	13.60%	15.24%		0.14%		
91127	70072	Asheville A.B.C. Board	13.66%	15.24%	0.06%	0.14%		
91128	70074	Asheville Regional Airport Authority	13.64%	15.24%	0.04%	0.14%		
91138		Skyland Vol Fire Dept	13.60%					
91141	73016	Weaverville, Town of	13.69%	15.24%	0.09%	0.14%		
91147		Weaverville A.B.C. Board	13.60%					
91151	70200	Black Mountain, Town of	13.63%	15.24%	0.03%	0.14%		
91154		Black Mountain A.B.C. Board	13.69%		0.09%			
91161	71820	Montreat, Town of	13.64%	15.24%	0.04%	0.14%		

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
91171	73160	Woodfin, Town of	13.60%	15.24%		0.14%		
91201	70310	Burke County	13.65%	15.24%	0.05%	0.14%		
91203		Burke Co Health Dept	13.65%		0.05%			
91206		Burke Co Dept of Social Services	13.63%		0.03%			
91208		Burke County Tourism Dev. Authority	13.60%					
91211	72883	Valdese, Town of	13.66%	15.24%	0.06%	0.14%		
91213		Valdese Housing Authority	13.60%					
91214		Rutherford College, Town of	13.60%					
91217	71880	Morganton A.B.C. Board	13.67%		0.07%			
91221	70745	Drexel, Town of	13.64%	15.24%	0.04%	0.14%		
91231	71870	Morganton, City of	13.60%	15.24%		0.14%		
91233		Morganton Housing Authority	13.66%		0.06%			
91241	71065	Glen Alpine, Town of	13.64%	15.24%	0.04%	0.14%		
91251		Hildebran, Town of	13.60%					
91261		Connelly Springs, Town of	13.60%					
91301	70340	Cabarrus County	13.64%	15.24%	0.04%	0.14%		
91302		Water & Sewer Auth of Cabarrus County	13.63%		0.03%			
91306		Cabarrus Co Public Health Auth	13.62%		0.02%			
91308		Cabarrus County Tourism Authority	14.27%				40,009	6/30/2030
91311	70590	Concord, City of	13.63%	15.24%	0.03%	0.14%		
91317		Concord A.B.C. Board	13.68%		0.08%			
91321		Mount Pleasant, Town of	13.60%					
91327		Mount Pleasant A.B.C. Board	13.63%		0.03%			
91331	71468	Kannapolis, City of	13.64%	15.24%	0.04%	0.14%		
91341		Midland, Town of	13.60%					
91401	70350	Caldwell County	13.64%	15.24%	0.04%	0.14%		
91411	71090	Granite Falls, Town of	13.64%	15.24%	0.04%	0.14%		
91414		Rhodhiss, Town of	13.60%	15.24%		0.14%		
91417		Granite Falls A.B.C. Board	13.74%		0.14%			
91421		Sawmills, Town of	13.60%					
91423		Lenoir Housing Authority	13.66%		0.06%			
91431	71395	Hudson, Town of	13.60%	15.24%		0.14%		
91441		Harrisburg, Town of	13.60%					
91451	71552	Lenoir, City of	13.72%	15.24%	0.12%	0.14%		
91457		Lenoir A.B.C. Board	13.60%					
91461		Cajah's Mountain, Town of	13.60%					
91501	70357	Camden County	13.66%	15.24%	0.06%	0.14%		
91504		Camden County A.B.C. Board	13.83%		0.23%			
91601	70380	Carteret County	13.65%	15.24%	0.05%	0.14%		
91604	70385	Carteret County A.B.C. Board	13.66%	15.24%	0.06%	0.14%		



## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
91608		Western Carteret Interlocal Cooperation Agency	13.60%					
91611	71860	Morehead City, Town of	13.64%	15.24%	0.04%	0.14%		
91621	72035	Newport, Town of	13.60%	15.24%		0.14%		
91631	70145	Beaufort, Town of	13.64%	15.24%	0.04%	0.14%		
91633		Beaufort Housing Authority	13.60%					
91641	72290	Pine Knoll Shores, Town of	13.63%	15.24%	0.03%	0.14%		
91651	70890	Emerald Isle, Town of	13.60%	15.24%		0.14%		
91661	71405	Indian Beach, Town of	13.60%	15.24%		0.14%		
91671	70365	Cape Carteret, Town of	13.65%	15.24%	0.05%	0.14%		
91681	70080	Atlantic Beach, Town of	19.92%	21.47%	0.09%	0.14%	515,492	6/30/2025
91691		Cedar Point, Town of	13.60%					
91701	70415	Caswell County	13.66%	15.24%	0.06%	0.14%		
91704		Caswell County A.B.C. Board	13.73%		0.13%			
91706		Caswell Co Dept of Social Services	13.65%		0.05%			
91719	73192	Yanceyville, Town of	13.64%		0.04%			
91801	70430	Catawba County	13.63%	15.24%	0.03%	0.14%		
91804	70440	Catawba County A.B.C. Board	13.67%		0.07%			
91811	71330	Hickory, City of	13.64%	15.24%	0.04%	0.14%		
91812		Hickory Conover Tourism Dev Auth	13.60%					
91813		Hickory Public Housing Authority	13.64%		0.04%			
91818		Western Piedmont Council of Gvmnts	13.60%					
91819		Western Piedmont Regional Transit Authority	13.79%		0.19%			
91821	70535	Claremont, City of	13.64%	15.24%	0.04%	0.14%		
91831	71700	Maiden, Town of	13.63%	15.24%	0.03%	0.14%		
91841	71640	Longview, Town of	13.64%	15.24%	0.04%	0.14%		
91851	70610	Conover, Town of	13.65%	15.24%	0.05%	0.14%		
91861	70270	Brookford, Town of	13.60%					
91871	72040	Newton, City of	13.65%	15.24%	0.05%	0.14%		
91881	70441	Catawba, Town of	13.60%	15.24%		0.14%		
91901	70490	Chatham County	13.65%	15.24%	0.05%	0.14%		
91903		Chatham Co Housing Auth	13.60%					
91904		Chatham County A.B.C. Board	13.77%		0.17%			
91908		Goldston-Gulf Sanitary District	13.60%					
91911	72625	Siler City, Town of	13.63%	15.24%	0.03%	0.14%		
91917		Siler City A.B.C. Board	13.64%		0.04%			
91921	72330	Pittsboro, Town of	13.64%	15.24%	0.04%	0.14%		
92001	70500	Cherokee County	13.67%	15.24%	0.07%	0.14%		
92005		Nantahala Regional Library	13.75%		0.15%			
92011	71975	Murphy, Town of	13.67%	15.24%	0.07%	0.14%		
92017		Murphy A.B.C. Board	13.68%		0.08%			

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
92021	70036	Andrews, Town of	13.60%	15.24%		0.14%		
92101	70530	Chowan County	13.65%	15.24%	0.05%	0.14%		
92104		Chowan County A.B.C. Board	13.73%		0.13%			
92109		Albemarle Regional Planning & Development Comm	13.64%		0.04%			
92111	70817	Edenton, Town of	13.64%	15.24%	0.04%	0.14%		
92113		New Edenton Housing Auth	13.68%		0.08%			
92201	70538	Clay County	13.65%	15.24%	0.05%	0.14%		
92214		Clay County A.B.C. Board	13.60%					
92301	70550	Cleveland County	13.63%	15.24%	0.03%	0.14%		
92302		Cleveland County Water	13.60%					
92311	72610	Shelby, City of	13.64%	15.24%	0.04%	0.14%		
92317		Shelby A.B.C. Board	13.69%		0.09%			
92321	71490	Kings Mountain, City of	13.69%	15.24%	0.09%	0.14%		
92327		Kings Mountain A.B.C. Board	13.80%		0.20%			
92331	70230	Boiling Springs, Town of	13.65%	15.24%	0.05%	0.14%		
92341	71532	Lawndale, Town of	13.60%					
92351	71178	Grover, Town of	13.67%		0.07%			
92401	70580	Columbus County	13.66%	15.24%	0.06%	0.14%		
92403		Whiteville Housing Authority	13.60%					
92411	73060	Whiteville, City of	13.67%	15.24%	0.07%	0.14%		
92417		Whiteville A.B.C. Board	13.62%		0.02%			
92421		Brunswick, Town of	13.60%					
92427		Lake Waccamaw A.B.C. Board	13.87%		0.27%			
92431	70908	Fair Bluff, Town of	13.60%	15.24%		0.14%		
92441	70450	Chadbourn, Town of	13.60%	15.24%		0.14%		
92444		West Columbus A.B.C. Board	13.60%					
92451	72760	Tabor City, Town of	13.60%	15.24%		0.14%		
92461	71519	Lake Waccamaw, Town of	13.60%	15.24%		0.14%		
92501	70650	Craven County	13.64%	15.24%	0.04%	0.14%		
92502		First Craven Sanitary Dist	13.60%					
92504		Craven Co A.B.C. Bd	13.66%		0.06%			
92505		Craven-Pamlico-Carteret Regional Library	13.71%		0.11%			
92506		Coastal Carolina Regional Airport	13.84%		0.24%			
92507		Neuse River Council of Governments	13.62%		0.02%			
92508		Coastal Regional Solid Waste Mngt Auth	13.66%		0.06%			
92511	72020	New Bern, City of	13.64%	15.24%	0.04%	0.14%		
92513		Trillium Health Resources	13.63%		0.03%			
92521	72810	Trent Woods, Town of	13.67%	15.24%	0.07%	0.14%		
92531	71240	Havelock, City of	13.64%	15.24%	0.04%	0.14%		
92541	72435	River Bend, Town of	13.60%	15.24%		0.14%		

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
92551	72910	Vanceboro, Town of	13.60%	15.24%		0.14%		
92561		Bridgeton, Town of	13.60%					
92571		Cove City, Town of	13.60%					
92601	70680	Cumberland County	13.64%	15.24%	0.04%	0.14%		
92602		Westarea Volunteer Fire Dept	13.60%					
92604	70685	Cumberland Co A.B.C. Board	13.65%	15.24%	0.05%	0.14%		
92607		Mid-Carolina Council Of Governments	13.65%		0.05%			
92611	70940	Fayetteville, City of	13.64%	15.24%	0.04%	0.14%		
92613		Fayetteville Metropolitan Housing Auth	13.65%		0.05%			
92614		Fayetteville Public Works Commission	13.60%					
92621	72715	Stedman, Town of	13.60%					
92631	71390	Hope Mills, Town of	13.65%	15.24%	0.05%	0.14%		
92641		Wade, Town of	13.60%					
92651		Linden, Town of	13.60%					
92661	72676	Spring Lake, Town of	20.29%	21.86%	0.07%	0.14%	351,075	9/30/2024
92671		Falcon Town of	20.02%				10,121	6/30/2026
92681		Eastover, Town of	13.65%		0.05%			
92701	70700	Currituck County	13.65%	15.24%	0.05%	0.14%		
92704		Currituck Co A.B.C. Board	13.60%					
92801	70720	Dare County	13.64%	15.24%	0.04%	0.14%		
92802		Dare County Tourism Board	13.65%		0.05%			
92804	70721	Dare County A.B.C. Board	13.65%	15.24%	0.05%	0.14%		
92811	71980	Nags Head, Town of	13.64%	15.24%	0.04%	0.14%		
92821	71480	Kill Devil Hills, Town of	13.65%	15.24%	0.05%	0.14%		
92831	71705	Manteo, Town of	13.68%	15.24%	0.08%	0.14%		
92841	72645	Southern Shores, Town of	13.62%	15.24%	0.02%	0.14%		
92851	71507	Kitty Hawk, Town of	13.70%	15.24%	0.10%	0.14%		
92861	70755	Duck, Town of	13.60%	15.24%		0.14%		
92901	70723	Davidson County	13.65%	15.24%	0.05%	0.14%		
92911	72780	Thomasville, City of	13.65%	15.24%	0.05%	0.14%		
92913		Thomasville Housing Authority	13.60%				64,263	6/30/2024
92914		Thomasville A.B.C. Board	13.60%					
92917		Lexington A.B.C. Board	13.73%		0.13%			
92921	70730	Denton, Town of	13.60%	15.24%		0.14%		
92931	71570	Lexington, City of	13.64%	15.24%	0.04%	0.14%		
92941		Midway, Town of	15.89%				17,158	3/31/2038
93001	70725	Davie County	13.64%	15.24%	0.04%	0.14%		
93009		Davie Soil and Water Conservation Dist	13.60%					
93011	71790	Mocksville, Town of	13.65%		0.05%			
93021		Bermuda Run, Town of	13.60%					

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
93028		Mocksville-Cooleemee A.B.C. Board	13.69%		0.09%			
93031	70624	Cooleemee, Town of	13.60%				6,831	6/30/2024
93101	70770	Duplin County	13.66%	15.24%	0.06%	0.14%		
93108		Eastpointe Human Services	13.63%		0.03%			
93111	70160	Beulaville, Town of	13.64%	15.24%	0.04%	0.14%		
93121	71469	Kenansville, Town of	13.66%	15.24%	0.06%	0.14%		
93127		Kenansville A.B.C. Board	13.60%					
93131	72981	Warsaw, Town of	13.76%	15.24%	0.16%	0.14%		
93137		Warsaw A.B.C. Board	13.60%					
93141	70920	Faison, Town of	13.65%		0.05%			
93151	72970	Wallace, Town of	13.60%	15.24%		0.14%		
93157		Wallace A.B.C. Bd	13.60%					
93161	72487	Rose Hill, Town of	13.70%	15.24%	0.10%	0.14%		
93171		Calypso, Town of	13.60%					
93181		Teachey, Town of	13.60%					
93191	71690	Magnolia, Town of	13.60%	15.24%		0.14%		
93201	70790	Durham County	13.63%	15.24%	0.03%	0.14%		
93204	70800	Durham County A.B.C. Board	13.65%		0.05%			
93209		Alliance Behavioral Healthcare	13.60%					
93211	70780	Durham, City of	13.60%	15.24%		0.14%		
93212		Durham Convention & Visitors Bureau	19.31%				330,943	6/30/2027
93219		Triangle J Council of Governments	13.63%		0.03%			
93301	70820	Edgecombe County	13.66%	15.24%	0.06%	0.14%		
93304		Edgecombe County A.B.C. Board	13.70%		0.10%			
93305		Edgecombe County Memorial Library	13.67%		0.07%			
93309		Upper Coastal Plain Council of Governments	13.64%		0.04%			
93311	72770	Tarboro, Town of	13.64%	15.24%	0.04%	0.14%		
93317		Tarboro Redevelopment Commission	13.67%		0.07%			
93321	72480	Rocky Mount, City of	13.64%	15.24%	0.04%	0.14%		
93323		Rocky Mount-Wilson Airport Authority	13.63%		0.03%			
93331	72296	Pinetops, Town of	13.68%	15.24%	0.08%	0.14%		
93333		Rocky Mt Housing Authority	13.60%					
93341		Macclesfield, Town of	13.64%		0.04%			
93351	72351	Princeville, Town of	13.60%					
93401	70951	Forsyth County	13.60%	15.24%		0.14%		
93406		Piedmont Triad Regional Council	13.70%		0.10%			
93411	73130	Winston-Salem, City of	13.60%	15.24%		0.14%		
93413		Winston-Salem Housing Authority	13.64%		0.04%			
93417	73140	Triad Municipal A.B.C. Board	13.70%	15.24%	0.10%	0.14%		
93421	71470	Kernersville, Town of	13.60%	15.24%		0.14%		

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
93431		Rural Hall, Town of	13.64%		0.04%			
93441		Clemmons, Village of	13.60%					
93442		Clemmons Fire Department	13.60%					
93451		Lewisville, Town of	13.60%					
93461		Walkertown, Town of	13.60%					
93471		Tobaccoville, Village of	13.60%					
93501	70960	Franklin County	13.66%	15.24%	0.06%	0.14%		
93511	70970	Franklinton, Town of	13.60%	15.24%		0.14%		
93517		Franklinton A.B.C Board	13.75%		0.15%			
93521	71650	Louisburg, Town of	13.65%	15.24%	0.05%	0.14%		
93527		Louisburg A.B.C. Board	13.71%		0.11%			
93531	70295	Bunn, Town of	13.60%	15.24%		0.14%		
93537		Bunn A.B.C. Board	13.60%					
93541	73200	Youngsville, Town of	13.60%	15.24%		0.14%		
93601	71030	Gaston County	13.63%	15.24%	0.03%	0.14%		
93602	72682	Stanley, Town of	13.67%	15.24%	0.07%	0.14%		
93604		Cramerton A.B.C. Board	13.60%					
93609		Partners Behavioral Health Management	13.63%		0.03%			
93610	71760	Mcadenville, Town of	13.64%		0.04%			
93611	71040	Gastonia, City of	13.60%	15.24%		0.14%		
93617		Gastonia A.B.C. Board	13.80%		0.20%			
93618		Gaston County Economic Dev Commission	13.60%					
93621	70150	Belmont, City of	13.60%	15.24%		0.14%		
93623		Belmont Housing Authority	13.60%					
93631	70640	Cramerton, Town of	13.74%	15.24%	0.14%	0.14%		
93641	70520	Cherryville, City of	13.66%	15.24%	0.06%	0.14%		
93647		Cherryville A.B.C. Board	13.60%				6/30/2023	
93651	70705	Dallas, Town of	13.60%	15.24%		0.14%		
93661	71655	Lowell, City of	13.60%	15.24%		0.14%		
93671		Bessemer City, City of	13.70%	15.24%	0.10%	0.14%		
93681	72390	Ranlo, Town of	13.60%	15.24%		0.14%		
93691	71930	Mount Holly, City of	13.64%	15.24%	0.04%	0.14%		
93701	71050	Gates County	13.65%	15.24%	0.05%	0.14%		
93704	71052	Gates County A.B.C. Board	13.80%		0.20%			
93801	71085	Graham County	13.60%	15.24%		0.14%		
93803		Graham Co Health Dept	13.65%		0.05%			
93806		Graham County Dept of S S	13.63%		0.03%			
93821		Robbinsville, Town of	13.68%		0.08%			
93901	71110	Granville County	13.64%	15.24%	0.04%	0.14%		
93904		Granville Co A.B.C. Bd	13.74%		0.14%			

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
93906		Granville County Hospital	13.63%		0.03%			
93908		Granville-Vance Public Health	13.63%		0.03%			
93910		South Granville Water and Sewer Authority	13.69%		0.09%			
93911	72200	Oxford, City of	13.66%	15.24%	0.06%	0.14%		
93913		Oxford Housing Authority	13.66%		0.06%			
93914		Stovall, Town of	13.88%		0.28%			
93921	70660	Creedmoor, City of	13.60%	15.24%		0.14%		
93931		Butner, Town of	13.69%	15.24%	0.09%	0.14%		
94001	71130	Greene County	13.66%	15.24%	0.06%	0.14%		
94002		Maury Sanitary Land District	13.60%					
94004		Greene County A.B.C. Board	13.72%		0.12%			
94005		Neuse Regional Library-Greene County	13.64%		0.04%			
94011		Hookerton, Town of	13.62%		0.02%			
94021		Snow Hill, Town of	13.60%	15.24%		0.14%		
94031		Walstonburg, Town of	20.88%				36,975	9/30/2033
94101	71180	Guilford County	13.63%	15.24%	0.03%	0.14%		
94102		Guil-Rand Fire Department	13.60%					
94108		Pinecroft-Sedgefield Fire Dist Inc	13.60%					
94109		Alamance Community Fire District	13.60%					
94111	71140	Greensboro, City of	13.64%	15.24%	0.04%	0.14%		
94112		Piedmont Triad Reg Water Auth	13.64%	15.24%	0.04%	0.14%		
94117	71150	Greensboro A.B.C. Bd	13.66%		0.06%			
94118		Guilford Fire District #13 Inc	13.60%					
94121	71340	High Point, City of	13.64%	15.24%	0.04%	0.14%		
94127		High Point A.B.C. Bd	13.67%		0.07%			
94131	71442	Jamestown, Town of	13.64%		0.04%			
94151	71060	Gibsonville, Town of	13.66%	15.24%	0.06%	0.14%		
94157		Gibsonville A.B.C. Board	13.60%					
94161		Oak Ridge, Town of	13.60%					
94168		Colfax Volunteer Fire Department	13.60%					
94171		Summerfield, Town of	13.60%					
94172		Summerfield Fire District	13.63%		0.03%			
94201	71200	Halifax County	13.65%	15.24%	0.05%	0.14%		
94204		Halifax County A.B.C. Board	13.66%		0.06%			
94205		Halifax County Tourism Development Authority	13.72%		0.12%			
94209		Roanoke Rapids Sanitary District	13.65%		0.05%			
94211	70895	Enfield, Town of	13.72%	15.24%	0.12%	0.14%		
94221	72440	Roanoke Rapids, City of	13.66%	15.24%	0.06%	0.14%		
94231	73017	Weldon, Town of	13.67%	15.24%	0.07%	0.14%		
94241	72590	Scotland Neck, Town of	13.72%	15.24%	0.12%	0.14%		

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
94251		Hobgood, Town of	13.66%		0.06%			
94261	71615	Littleton, Town of	13.60%	15.24%		0.14%		
94301	71230	Harnett County	13.64%	15.24%	0.04%	0.14%		
94311	70760	Dunn, City of	13.66%	15.24%	0.06%	0.14%		
94313		Dunn Housing Authority	13.70%		0.10%			
94317		Dunn A.B.C. Board	13.70%		0.10%			
94321	71585	Lillington, Town of	13.63%	15.24%	0.03%	0.14%		
94331	70900	Erwin, Town of	13.67%	15.24%	0.07%	0.14%		
94341	70570	Coats, Town of	13.65%	15.24%	0.05%	0.14%		
94347		Angier A.B.C. Board	13.62%		0.02%			
94351	70038	Angier, Town of	13.60%	15.24%		0.14%		
94401	71250	Haywood County	13.64%	15.24%	0.04%	0.14%		
94403		Haywood County Tourism Development Authority	13.60%					
94408		Junaluska Sanitary District	13.66%		0.06%			
94411	73010	Waynesville, Town of	13.66%	15.24%	0.06%	0.14%		
94412	73015	Waynesville A.B.C. Board	13.66%		0.06%			
94415		Foothills Regional Airport Authority	13.60%					
94417		Monroe-Union County Economic Development Commission	13.60%					
94421	71685	Maggie Valley, Town of	13.60%	15.24%		0.14%		
94427		Maggie Valley A.B.C. Board	13.60%					
94428		Maggie Valley Sanitary Dist	13.60%					
94431	70362	Canton, Town of	13.65%	15.24%	0.05%	0.14%	30,568	6/30/2027
94437		Canton A.B.C. Board	18.48%					
94501	71275	Henderson County	13.64%	15.24%	0.04%	0.14%		
94511	71280	Hendersonville, City of	13.63%	15.24%	0.03%	0.14%		
94517		Hendersonville A.B.C. Bd	13.60%					
94521	71525	Laurel Park, Town of	13.66%	15.24%	0.06%	0.14%		
94527		Laurel Park A.B.C. Board	13.67%		0.07%			
94531		Flat Rock, Village of	13.60%					
94532	70220	Blue Ridge Fire Department	13.63%		0.03%			
94537		Stokesdale, Town of	13.60%					
94541	70943	Fletcher, Town of	13.60%	15.24%		0.14%		
94547		Fletcher A.B.C. Board	13.60%					
94551		Mills River, Town of	13.68%		0.08%			
94601	71310	Hertford County	13.66%	15.24%	0.06%	0.14%		
94604	71320	Hertford County A.B.C. Board	13.70%		0.10%			
94611	70007	Ahoskie, Town of	13.66%	15.24%	0.06%	0.14%		
94621	71970	Murfreesboro, Town of	13.60%	15.24%		0.14%		
94631	73155	Winton, Town of	13.74%		0.14%			
94641		Cofield, Town of	13.60%					

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
94701	71370	Hoke County	13.66%	15.24%	0.06%	0.14%		
94704		Hoke County A.B.C. Board	13.68%		0.08%			
94711	72355	Raeford, Town of	13.67%	15.24%	0.07%	0.14%		
94801	71400	Hyde County	13.66%	15.24%	0.06%	0.14%		
94804		Hyde County A.B.C. Board	13.60%					
94812		Ocracoke Sanitary Dist	13.67%		0.07%			
94901	71420	Iredell County	13.64%	15.24%	0.04%	0.14%		
94908		Greater Statesville Development Corp	13.60%					
94911	72700	Statesville, City of	13.64%	15.24%	0.04%	0.14%		
94917	72710	Statesville A.B.C. Board	13.71%		0.11%			
94921	71850	Mooresville, City of	13.64%	15.24%	0.04%	0.14%		
94923		Mooresville Housing Authority	13.63%		0.03%			
94927		Mooresville A.B.C. Board	13.67%		0.07%			
94931	72815	Troutman, Town of	13.70%	15.24%	0.10%	0.14%		
94937		Troutman A.B.C. Board	13.60%					
94947		Valdese A.B.C. Board	13.60%					
95001	71430	Jackson County	13.65%	15.24%	0.05%	0.14%		
95002		Tuckasegee Water Authority	13.66%		0.06%			
95005		Fontana Regional Library	13.68%		0.08%			
95008		Southwestern NC Planning & Econ Dev Comm	13.64%		0.04%			
95009		Vaya Health	13.63%		0.03%			
95010		Jackson County Tourism Development Authority	13.60%					
95011	72750	Sylva, Town of	13.64%	15.24%	0.04%	0.14%		
95017		Jackson County A.B.C. Board	13.67%		0.07%			
95101	71460	Johnston County	13.63%	15.24%	0.03%	0.14%		
95103		Benson Housing Authority	17.53%				147,895	12/31/2036
95104		Johnston County A.B.C. Board	13.69%		0.09%			
95105		Public Library of Johnston Co and Smithfield	13.62%		0.02%			
95106		Archer Lodge, Town of	13.77%		0.17%		1,673	6/30/2024
95110		Johnston Health Center	13.68%		0.08%			
95111	72630	Smithfield, Town of	13.65%	15.24%	0.05%	0.14%		
95113		Smithfield Housing Authority	13.60%					6/30/2023
95121	72594	Selma, Town of	13.64%	15.24%	0.04%	0.14%		
95122		Micro, Town of	13.60%	17.71%		0.14%	11,236	6/30/2029
95123		Selma Housing Authority	13.63%		0.03%			
95131	70540	Clayton, Town of	13.64%	15.24%	0.04%	0.14%		
95141	70170	Benson, Town of	13.63%	15.24%	0.03%	0.14%		
95151	70954	Four Oaks, Town of	13.60%	15.24%		0.14%		
95161	72295	Pine Level, Town of	13.60%	15.24%		0.14%		
95171	71472	Kenly, Town of	13.60%					



## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
95181	72349	Princeton, Town of	13.60%	15.24%		0.14%		
95191		Wilson's Mills, Town of	13.60%	15.24%		0.14%		
95201	71465	Jones County	13.64%	15.24%	0.04%	0.14%		
95204		Jones County A.B.C. Board	13.94%		0.34%			
95205		Neuse Regional Library-Jones County	13.63%		0.03%			
95211		Pollocksville, Town of	14.07%		0.47%			
95221	71745	Maysville, Town of	13.60%	15.24%		0.14%		
95301	71535	Lee County	13.67%	15.24%	0.07%	0.14%		
95311	72565	Sanford, City of	13.60%	15.24%		0.14%		
95317		Sanford A.B.C. Board	13.71%		0.11%			
95321	70265	Broadway, Town of	13.69%	15.24%	0.09%	0.14%		
95401	71550	Lenoir County	13.66%	15.24%	0.06%	0.14%		
95404		Lenoir County A.B.C. Board	13.66%	15.24%	0.06%	0.14%		
95405		Neuse Regional Library	13.65%		0.05%			
95411	71500	Kinston, City of	13.65%	15.24%	0.05%	0.14%		
95413		Kinston Housing Authority	13.65%		0.05%			
95415		Kinston-Lenoir Co Pub Library	13.69%		0.09%			
95421	72305	Pink Hill, Town of	13.66%	15.24%	0.06%	0.14%		
95431	71517	Lagrange, Town of	13.64%		0.04%			
95501	71590	Lincoln County	13.64%	15.24%	0.04%	0.14%		
95504		Lincoln County A.B.C. Board	13.60%					6/30/2023
95511	71600	Lincolnton, City of	13.64%	15.24%	0.04%	0.14%		
95513		Lincolnton Housing Authority	13.68%		0.08%			
95517		Lincolnton A.B.C. Board	13.75%		0.15%			
95601	71680	Macon County	13.65%	15.24%	0.05%	0.14%		
95611	70955	Franklin, Town of	13.65%	15.24%	0.05%	0.14%		
95617		Highlands A.B.C. Board	13.81%		0.21%			
95621	71335	Highlands, Town of	13.60%	15.24%		0.14%		
95701	71684	Madison County	13.68%	15.24%	0.08%	0.14%		
95711	71718	Mars Hill, Town of	13.64%	15.24%	0.04%	0.14%		
95721	71711	Marshall, Town of	13.71%	15.24%	0.11%	0.14%		
95733		Hot Springs Housing Authority	13.60%					
95801	71730	Martin County	13.67%	15.24%	0.07%	0.14%		
95802		Martin Co Travel & Tourism Auth	13.63%		0.03%			
95804		Martin County A.B.C. Board	13.64%		0.04%			
95811	73080	Williamston, Town of	13.60%	15.24%		0.14%		
95813		Williamston Housing Authority	13.69%		0.09%			
95821		Oak City, Town of	13.60%					
95831		Hamilton, Town of	13.68%		0.08%			
95841		Jamesville, Town of	13.60%					

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
95851	72445	Robersonville, Town of	13.60%	15.24%		0.14%		
95853		Robersonville Authority	13.60%					
95901	71762	McDowell County	13.65%	15.24%	0.05%	0.14%		
95908		Pleasant Garden Fire Dept	13.60%					
95911	71710	Marion, Town of	13.65%	15.24%	0.05%	0.14%		
95917		Marion A.B.C. Board	13.60%					
95921	72140	Old Fort, Town of	13.60%	15.24%		0.14%		
96001	71770	Mecklenburg County	13.63%	15.24%	0.03%	0.14%		
96003		Charlotte Housing Authority	13.60%					
96004	71780	Mecklenburg County A.B.C. Board	13.66%	15.24%	0.06%	0.14%		
96005		Charlotte Mecklenburg Public Library	13.63%		0.03%			
96008		Mecklenburg Emer Med Svcs Agcy	13.62%		0.02%			
96009		Centralina Council Of Governments	13.60%					
96011	70480	Charlotte, City of	13.60%	15.24%		0.14%		
96012		Charlotte Regional Visitors Authority	13.60%					
96018		Charlotte Firemen's Ret Sys	13.60%					
96021	72300	Pineville, Town of	13.63%	15.24%	0.03%	0.14%		
96031	71775	Mint Hill, Town of	13.63%	15.24%	0.03%	0.14%		
96041	71397	Huntersville, Town of	13.60%	15.24%		0.14%		
96051	70625	Cornelius, Town of	13.60%	15.24%		0.14%		
96061	72679	Stallings, Town of	13.67%	15.24%	0.07%	0.14%		
96071	71740	Matthews, Town of	13.64%	15.24%	0.04%	0.14%		
96081	70724	Davidson, Town of	13.68%	15.24%	0.08%	0.14%		
96101	71788	Mitchell County	13.73%	15.24%	0.13%	0.14%		
96102		Mitchell Soil & Water Conservation Dist	13.60%					
96111	72678	Spruce Pine, Town of	13.66%	15.24%	0.06%	0.14%		
96121	70105	Bakersville, Town of	13.60%	15.24%		0.14%		
96201	71815	Montgomery County	13.65%	15.24%	0.05%	0.14%		
96204		Montgomery-Municipal A.B.C. Board	13.70%		0.10%			
96211	72685	Star, Town of	13.60%	15.24%		0.14%		
96221	72822	Troy, Town of	13.60%	15.24%		0.14%		
96231	70192	Biscoe, Town of	13.60%	15.24%		0.14%		
96241	70360	Candor, Town of	13.60%	15.24%		0.14%		
96251	71920	Mount Gilead, Town of	13.67%	15.24%	0.07%	0.14%		
96301	71830	Moore County	13.64%	15.24%	0.04%	0.14%		
96302	72776	Taylortown, Town of	13.60%	15.24%		0.14%		
96304	71840	Moore County A.B.C. Board	13.67%		0.07%			
96305		Moore County Tourism Development Authority	13.68%		0.08%			
96310		Moore County Airport Authority	13.69%		0.09%			
96311	72640	Southern Pines, Town of	13.64%	15.24%	0.04%	0.14%		

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
96312	70358	Cameron, Town of	13.60%					
96318		Sandhills Center	13.60%					
96321	72920	Vass, Town of	13.68%	15.24%	0.08%	0.14%		
96331	70005	Aberdeen, Town of	13.66%	15.24%	0.06%	0.14%		
96341	72443	Robbins, Town of	13.60%	15.24%		0.14%		
96351	72287	Pinehurst, Village of	13.64%	15.24%	0.04%	0.14%		
96361	72285	Pinebluff, Town of	13.70%	15.24%	0.10%	0.14%		
96371	73040	Whispering Pines, Village of	13.65%	15.24%	0.05%	0.14%		
96381	70953	Foxfire Village	13.68%	15.24%	0.08%	0.14%		
96391	70390	Carthage, Town of	13.60%	15.24%		0.14%		
96401	71990	Nash County	13.63%	15.24%	0.03%	0.14%		
96404	72000	Nash County A.B.C. Board	13.69%	15.24%	0.09%	0.14%		
96405		Braswell Memorial Library	13.60%					
96411	72675	Spring Hope, Town of	13.60%	15.24%		0.14%		
96421	71995	Nashville, Town of	13.64%	15.24%	0.04%	0.14%		
96431	71785	Middlesex, Town of	13.71%	15.24%	0.11%	0.14%		
96441	73045	Whitakers, Town of	13.60%	15.24%		0.14%		
96451	70104	Bailey, Town of	13.60%	15.24%		0.14%		
96461	72600	Sharpsburg, Town of	13.60%	15.24%		0.14%		
96501	72030	New Hanover County	13.63%	15.24%	0.03%	0.14%		
96502	72024	New Hanover Airport Auth	13.65%		0.05%			
96503		Wilmington Housing Authority	13.60%				267,313	6/30/2024
96504		New Hanover County A.B.C. Board	13.77%		0.17%			
96507		Cape Fear Public Utility Authority	13.60%					
96508		Lower Cape Fear Water & Sewer Auth	13.67%		0.07%			
96511	73165	Wrightsville Beach, Town of	13.64%	15.24%	0.04%	0.14%		
96512		Cape Fear Public Transportation Authority	13.60%					
96521	70375	Carolina Beach, Town of	13.60%	15.24%		0.14%		
96531	73090	Wilmington, City of	13.60%	15.24%		0.14%		
96541	71515	Kure Beach, Town of	13.72%	15.24%	0.12%	0.14%		
96601	72060	Northampton County	13.65%	15.24%	0.05%	0.14%		
96604		Northampton County A.B.C. Board	13.88%		0.28%			
96611	72432	Rich Square, Town of	13.60%					
96612		Choanoke Public Transportation Auth	13.60%					
96621	73162	Woodland, Town of	13.60%	15.24%		0.14%		
96631	71020	Garysburg, Town of	13.60%	15.24%		0.14%		
96641	70620	Conway, Town of	13.60%	15.24%		0.14%		
96651	71032	Gaston, Town of	13.60%	15.24%		0.14%		
96661	71435	Jackson, Town of	13.60%					
96671	72595	Severn, Town of	13.60%					

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
96681	72591	Seaboard, Town	18.31%				21,907	12/31/2025
96701	72150	Onslow County	13.64%	15.24%	0.04%	0.14%		
96704	72160	Onslow County A.B.C. Board	13.67%		0.07%			
96708		Onslow Water & Sewer Authority	14.91%		0.09%		384,243	6/30/2028
96711	71440	Jacksonville, City of	13.65%	15.24%	0.05%	0.14%		
96721	72745	Swansboro, Town of	13.65%	15.24%	0.05%	0.14%		
96722		Sweptonville, Town of	13.65%		0.05%			
96731	71380	Holly Ridge, Town of	13.65%	15.24%	0.05%	0.14%		
96741	72420	Richlands, Town of	13.60%	15.24%		0.14%		
96751	72789	North Topsail Beach, Town of	13.71%	15.24%	0.11%	0.14%		
96801	72170	Orange County	13.64%	15.24%	0.04%	0.14%		
96804		Orange County A.B.C. Board	13.64%		0.04%			
96808		Orange Water and Sewer Authority	13.63%		0.03%			
96811	70470	Chapel Hill, Town of	13.64%	15.24%	0.04%	0.14%		
96821	70372	Carrboro, Town of	13.64%	15.24%	0.04%	0.14%		
96831	71360	Hillsborough, Town of	13.64%	15.24%	0.04%	0.14%		
96901	72210	Pamlico County	13.65%	15.24%	0.05%	0.14%		
96911		Bayboro, Town of	13.60%					
96912	72195	Oriental, Town of	13.60%	15.24%		0.14%		
96918		Bay River Metro Sewerage District	13.67%		0.07%			
97001	72220	Pasquotank County	13.66%	15.24%	0.06%	0.14%		
97002		Pasquotank-Camden Ambulance Service	13.63%		0.03%			
97004		Pasquotank Co A.B.C. Board	13.64%		0.04%			
97005		East Albemarle Regional Library	13.67%		0.07%			
97008		Albemarle District Jail Commission	13.60%					
97011	70840	Elizabeth City	13.64%	15.24%	0.04%	0.14%		
97012		Elizabeth City-Pasquotank Co Airport Auth	13.60%					
97013		Elizabeth City Pasquotank County TDA	15.87%				25,029	6/30/2029
97015		Pasquotank-Camden Library	13.68%		0.08%			
97018		Elizabeth City-Pasquotank Co Industrial Development	13.73%		0.13%			
97101	72235	Pender County	13.64%	15.24%	0.04%	0.14%		
97104		Pender County A.B.C. Board	13.68%		0.08%			
97111	70300	Burgaw, Town of	13.60%	15.24%		0.14%		
97121	72790	Topsail Beach, Town of	13.67%	15.24%	0.07%	0.14%		
97131	72725	Surf City, Town of	13.63%	15.24%	0.03%	0.14%		
97201	72245	Perquimans County	13.65%	15.24%	0.05%	0.14%		
97211	71300	Hertford, Town of	13.67%		0.07%			
97213		Hertford Housing Auth	13.60%					
97217	71305	Hertford A.B.C. Board	13.71%		0.11%			
97221	73124	Winfall, Town of	13.60%					

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
97301	72250	Person County	13.65%	15.24%	0.05%	0.14%		
97302		Roxboro Housing Authority	13.60%					
97304		Person Co A.B.C. Bd	13.75%		0.15%			
97311	72520	Roxboro, City of	13.66%	15.24%	0.06%	0.14%		
97401	72310	Pitt County	13.64%	15.24%	0.04%	0.14%		
97402		Pitt-Greenville Conv & Visitors	13.60%					
97404	72320	Pitt County A.B.C. Board	13.65%	15.24%	0.05%	0.14%		
97405		Sheppard Memorial Library	13.67%		0.07%			
97408		Contennea Metropolitan Sewerage Dist	13.65%		0.05%			
97411	71160	Greenville, City of	13.64%	15.24%	0.04%	0.14%		
97412		Greenville Utilities Commission	13.63%		0.03%			
97413		Greenville Housing Authority	13.65%		0.05%			
97421	70930	Farmville, Town of	13.65%	15.24%	0.05%	0.14%		
97423		Farmville Housing Authority	20.54%				53,444	6/30/2025
97431	71170	Grifton, Town of	13.69%	15.24%	0.09%	0.14%		
97441	70157	Bethel, Town of	13.66%	15.24%	0.06%	0.14%		
97451	73150	Winterville, Town of	13.64%	15.24%	0.04%	0.14%		
97461	70100	Ayden, Town of	13.60%	15.24%		0.14%		
97471		Grimesland, Town of	13.65%		0.05%			
97481	72626	Simpson, Village of	13.60%					
97501	72340	Polk County	13.65%	15.24%	0.05%	0.14%		
97511	72823	Tryon, Town of	13.66%	15.24%	0.06%	0.14%		
97517		Tryon A.B.C. Board	13.63%		0.03%			
97521	70581	Columbus, Town of	13.60%	15.24%		0.14%		
97527		Columbus A.B.C. Board	13.60%					
97531	72560	Saluda, City of	13.65%	15.24%	0.05%	0.14%		
97601	72380	Randolph County	13.64%	15.24%	0.04%	0.14%		
97607		Asheboro A.B.C. Board	13.60%					
97611	70064	Asheboro, City of	13.65%	15.24%	0.05%	0.14%		
97613		Asheboro Housing Authority	13.67%		0.07%			
97621	72377	Randleman, City of	13.65%	15.24%	0.05%	0.14%		
97623		Randleman Housing Authority	13.67%		0.07%			
97627		Randleman A.B.C. Board	13.68%		0.08%			
97631	71582	Liberty, Town of	13.64%	15.24%	0.04%	0.14%		
97637		Liberty A.B.C. Board	13.60%					
97641	72375	Ramseur, Town of	13.60%	15.24%		0.14%		
97651	70063	Archdale, City of	13.69%	15.24%	0.09%	0.14%		
97661		Trinity, City of	13.60%					
97701	72430	Richmond County	13.64%	15.24%	0.04%	0.14%		
97705		Sandhill Regional Library	13.66%		0.06%			

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
97711	72460	Rockingham, City of	13.66%	15.24%	0.06%	0.14%		
97713		Rockingham Authority	13.63%		0.03%			
97717		Hamlet A.B.C. Board	13.67%		0.07%			
97721	71220	Hamlet, City of	13.66%	15.24%	0.06%	0.14%		
97727		Rockingham A.B.C. Board	13.67%		0.07%			
97731		Ellerbe, Town of	13.60%					
97801	72450	Robeson County	13.64%	15.24%	0.04%	0.14%		
97802		Lumber River Council of Governments	13.65%		0.05%			
97803		Robeson County Housing Authority	13.69%		0.09%			
97805		Robeson County Public Library	13.67%		0.07%			
97811	71670	Lumberton, City of	13.66%	15.24%	0.06%	0.14%		
97817		Lumberton A.B.C. Board	13.60%					
97818		Lumberton Airport Comm	13.60%					
97821	70910	Fairmont, Town of	13.73%	15.24%	0.13%	0.14%		
97823		Fairmont Housing Authority	13.66%		0.06%			
97831	72540	St Paul's, Town of	13.66%	15.24%	0.06%	0.14%		
97837		St Paul's Brd of Alcoholic CTL	13.60%					
97840	71750	Maxton, Town of	13.66%	15.24%	0.06%	0.14%		6/30/2023
97841		Parkton, Town of	15.65%	17.29%		0.14%	20,152	9/30/2035
97847		Maxton A.B.C. Board	13.79%		0.19%			
97851	72228	Pembroke, Town of	13.66%	15.24%	0.06%	0.14%		
97853		Pembroke Housing Authority	13.60%					
97861	72510	Rowland, Town of	13.66%	15.24%	0.06%	0.14%		
97871	72395	Red Springs, Town of	13.67%	15.24%	0.07%	0.14%		
97877		Red Springs A.B.C. Board	13.60%					
97901	72470	Rockingham County	13.64%	15.24%	0.04%	0.14%		
97911	72400	Reidsville, City of	13.67%	15.24%	0.07%	0.14%		
97913		New Reidsville Housing Auth	13.69%		0.09%			
97917		Reidsville A.B.C. Board	13.66%		0.06%			
97921	71755	Mayodan, Town of	13.70%	15.24%	0.10%	0.14%		
97931	72721	Stoneville, Town of	13.60%	15.24%		0.14%		
97941	71683	Madison, Town of	13.65%	15.24%	0.05%	0.14%		
97947		Madison A.B.C. Board	13.60%					
97948		Madison-Mayodan Recreation Comm	13.60%					
97951	70815	Eden, City of	13.60%	15.24%		0.14%		
97957		Eden A.B.C. Board	13.60%					
98001	72490	Rowan County	13.65%	15.24%	0.05%	0.14%		
98002		Rowan Convention & Visitors Bureau	13.60%				102	6/30/2024
98003		Rowan Co Housing Authority	13.60%					
98004	72500	Rowan County A.B.C. Board	13.69%		0.09%			

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
98008		Rowan Co Soil & Water Conv Dist	13.60%					6/30/2023
98011	72550	Salisbury, City of	13.64%	15.24%	0.04%	0.14%		
98013		Salisbury Housing Authority	13.60%					
98021	70812	East Spencer, Town of	13.66%	15.24%	0.06%	0.14%		
98023		East Spencer Housing Authority	13.63%		0.03%			
98031	72665	Spencer, Town of	13.65%	15.24%	0.05%	0.14%		
98041	70522	China Grove, Town of	13.64%	15.24%	0.04%	0.14%		
98051	71522	Landis, Town of	13.60%	15.24%		0.14%		
98061	71105	Granite Quarry, Town of	13.63%	15.24%	0.03%	0.14%		
98071	72475	Rockwell, Town of	13.60%	15.24%		0.14%		
98081		Faith, Town of	13.60%					
98091	70552	Cleveland, Town of	13.63%	15.24%	0.03%	0.14%		
98101	72530	Rutherford County	13.65%	15.24%	0.05%	0.14%		
98102		Broad River Water Authority	13.63%		0.03%			
98103		Rutherford Polk McDowell Dist Brd of Health	13.63%		0.03%			
98107		Forest City A.B.C. Board 168	13.60%					
98109		Isothermal Planning and Dev Comm	13.65%		0.05%			
98111	70950	Forest City, Town of	13.64%	15.24%	0.04%	0.14%		
98113		Forest City Housing Authority	13.60%					
98121	72670	Spindale, Town of	13.66%	15.24%	0.06%	0.14%		
98131	71518	Lake Lure, Town of	13.60%	15.24%		0.14%		
98141	72535	Rutherfordton, Town of	13.64%	15.24%	0.04%	0.14%		
98147		Rutherfordton A.B.C. Board	13.60%					
98161		Ellenboro, Town of	13.60%					
98201	72563	Sampson County	13.64%	15.24%	0.04%	0.14%		
98205		J C Holiday Mem Library	13.63%		0.03%			
98211	70555	Clinton, City of	13.64%	15.24%	0.04%	0.14%		
98218		Clinton A.B.C. Board	13.72%		0.12%			
98221	72547	Salemburg, Town of	13.65%		0.05%			
98231	72050	Newton Grove, Town of	13.66%	15.24%	0.06%	0.14%		
98237		Roseboro A.B.C. Board	13.60%					
98241	71000	Garland, Town of	13.76%		0.16%			
98251		Turkey, Town of	13.74%		0.14%			
98261	72486	Roseboro, Town of	13.67%		0.07%			
98271		Autryville, Town of	13.63%		0.03%			
98301	72580	Scotland County	13.66%	15.24%	0.06%	0.14%		
98304		Scotland County A.B.C. Board	13.67%		0.07%			
98308		Laurinburg-Maxton Airport Commission	13.60%					
98311	71530	Laurinburg, City of	13.65%	15.24%	0.05%	0.14%		
98313		Laurinburg Housing Authority	20.33%		0.08%		452,487	12/31/2026

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
98321	72935	Wagram, Town of	13.71%	15.24%	0.11%	0.14%		
98331	71051	Gibson, Town of	15.19%				1,228	3/31/2025
98401	72683	Stanly County	13.65%	15.24%	0.05%	0.14%		
98404		Locust A.B.C. Board	13.60%					
98411	70030	Albemarle, City of	13.64%	15.24%	0.04%	0.14%		
98414	71786	Misenheimer, Village of	13.80%	15.24%	0.20%	0.14%		
98417		Albemarle A.B.C. Board	13.60%					
98421	72110	Norwood, Town of	13.65%	15.24%	0.05%	0.14%		
98427		Norwood A.B.C. Bd	13.60%					
98431	71620	Locust, City of	13.60%	15.24%		0.14%		
98441	72120	Oakboro, Town of	13.60%	15.24%		0.14%		
98451	70103	Badin, Town of	13.65%	15.24%	0.05%	0.14%		
98471		New London, Town of	13.60%					
98481	72680	Stanfield, Town of	13.60%	15.24%		0.14%		
98501	72720	Stokes County	13.64%	15.24%	0.04%	0.14%		
98511	72975	Walnut Cove, Town of	13.64%		0.04%			
98517		Walnut Cove A.B.C. Board	13.60%					
98521	71487	King, City of	13.65%	15.24%	0.05%	0.14%		
98601	72730	Surry County	13.67%	15.24%	0.07%	0.14%		
98604		Yadkin Valley A.B.C. Board	13.60%					
98607		Pilot Mountain A.B.C. Board	13.60%					
98608		Yadkin Valley Sewer Authority	13.60%					
98611	72280	Pilot Mountain, Town of	13.63%	15.24%	0.03%	0.14%		
98621	70735	Dobson, Town of	13.66%	15.24%	0.06%	0.14%		
98627		Dobson A.B.C. Bd	13.60%					
98631	71910	Mount Airy, City of	13.74%	15.24%	0.14%	0.14%		
98637		Mount Airy Alcoholic Board of Control	13.68%		0.08%			
98641	70855	Elkin, Town of	13.66%	15.24%	0.06%	0.14%		
98701	72740	Swain County	13.65%	15.24%	0.05%	0.14%		
98711	70285	Bryson City, Town of	13.65%	15.24%	0.05%	0.14%		
98717		Bryson City A.B.C. Board	13.68%		0.08%			
98801	72800	Transylvania County	13.65%	15.24%	0.05%	0.14%		
98811	70260	Brevard, City of	13.65%	15.24%	0.05%	0.14%		
98817		Brevard A.B.C. Board	13.60%					
98901	72825	Tyrrell County	13.68%	15.24%	0.08%	0.14%		
98904		Tyrrell Co A.B.C. Board	13.68%		0.08%			
98911		Columbia, Town of	13.60%					
99001	72830	Union County	13.63%	15.24%	0.03%	0.14%		
99011	71800	Monroe, City of	13.64%	15.24%	0.04%	0.14%		
99013		Monroe Housing Authority	13.64%		0.04%			



## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
99014		Indian Trail A.B.C. Board	15.42%		0.10%		35,584	6/30/2039
99017		Monroe A.B.C. Board	13.69%		0.09%			
99021	71720	Marshville, Town of	13.66%	15.24%	0.06%	0.14%		
99022		Mineral Springs, Town of	18.30%				51,136	9/30/2034
99031	73125	Wingate, Town of	13.68%	15.24%	0.08%	0.14%		
99041	72995	Waxhaw, Town of	13.64%	15.24%	0.04%	0.14%		
99047		Waxhaw A.B.C. Board	13.60%					
99051		Indian Trail, Town of	13.63%		0.03%			
99061		Unionville, Town of	13.60%					
99071		Weddington, Town of	16.71%		0.10%		26,525	3/31/2029
99081		Marvin, Village of	13.60%					
99091		Wesley Chapel, Village of	13.60%					
99101	72890	Vance County	13.65%	15.24%	0.05%	0.14%		
99104		Vance County A.B.C. Bd	13.60%					
99109		Kerr-Tar Regional Council of Govts	13.64%		0.04%			
99110		Kerr Area Transportation Authority	13.60%					
99111	71270	Henderson, City of	13.66%	15.24%	0.06%	0.14%		
99201	72940	Wake County	13.63%	15.24%	0.03%	0.14%		
99202	71385	Holly Springs, Town of	13.63%	15.24%	0.03%	0.14%		
99203	72485	Rolesville, Town of	13.66%	15.24%	0.06%	0.14%		
99204	72950	Wake County A.B.C. Board	13.64%	15.24%	0.04%	0.14%		
99206	71882	Morrisville, Town of	13.63%	15.24%	0.03%	0.14%		
99207		Wake County Housing Authority	24.01%				1,049,184	6/30/2032
99208		Bayleaf Fire Department	13.60%					
99210		Electricities of NC	13.60%					
99211	72360	Raleigh, City of	13.60%	15.24%		0.14%		
99212		Durham Hwy Fire Protection Assoc	13.60%					
99213		Raleigh Housing Authority	13.65%		0.05%			
99218	72370	Raleigh-Durham Airport Authority	13.63%	15.24%	0.03%	0.14%		
99219		Lincolnton-Lincoln County Airport Authority	13.60%					
99221	70400	Cary, Town of	13.63%	15.24%	0.03%	0.14%		
99222		Centennial Authority	13.63%		0.03%			
99231	73020	Wendell, Town of	13.63%	15.24%	0.03%	0.14%		
99241	73210	Zebulon, Town of	13.63%	15.24%	0.03%	0.14%		
99251	71010	Garner, Town of	13.63%	15.24%	0.03%	0.14%		
99252		Garner Fire Dept	13.62%		0.02%			
99261	70990	Fuquay-Varina, Town of	13.63%	15.24%	0.03%	0.14%		
99271	70050	Apex, Town of	13.63%	15.24%	0.03%	0.14%		
99281	72960	Wake Forest, Town of	13.67%	15.24%	0.07%	0.14%		
99291	71510	Knightdale, Town of	13.62%	15.24%	0.02%	0.14%		

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
99301	72980	Warren County	13.66%	15.24%	0.06%	0.14%		
99304	72979	Warren County A.B.C. Board	13.60%					
99311	72055	Norlina, Town of	13.60%	15.24%		0.14%		
99321	72991	Warrenton, Town of	20.45%	22.09%		0.14%	519,054	6/30/2032
99401	72985	Washington County	13.67%	15.24%	0.07%	0.14%		
99404		Washington County A.B.C. Board	13.71%		0.11%			
99405		Pettigrew Regional Library	13.67%		0.07%			
99411	72335	Plymouth, Town of	13.67%	15.24%	0.07%	0.14%		
99413		Plymouth Housing Authority	13.67%		0.07%			
99421		Roper, Town of	13.60%					
99431		Creswell, Town of	13.65%		0.05%			
99501	72983	Watauga County	13.68%	15.24%	0.08%	0.14%		
99502		Region D Council of Governments	13.60%					
99508		Blowing Rock Tourism Development Authority	13.60%					
99509		Watauga County District Tourism Dev Auth	13.60%					
99511	70240	Boone, Town of	13.65%	15.24%	0.05%	0.14%		
99521	70220	Blowing Rock, Town of	13.63%	15.24%	0.03%	0.14%		
99527		Blowing Rock A.B.C. Board	13.60%					
99531	72596	Seven Devils, Town of	18.58%	20.22%		0.14%	125,776	6/30/2026
99601	72997	Wayne County	13.65%	15.24%	0.05%	0.14%		
99602		Fork Township Sanitary Dist	13.63%		0.03%			
99603		Eastern Carolina Reg'l Housing Auth	13.60%					
99604		Wayne County A.B.C. Board	13.70%	15.24%	0.10%	0.14%		
99609		Southern Wayne Sanitary District	13.63%		0.03%			
99610	70505	Eastern Wayne Sanitary Dist	13.71%		0.11%			
99611	71070	Goldsboro, City of	13.65%	15.24%	0.05%	0.14%		
99613		Goldsboro Housing Authority	13.64%		0.04%			
99621	71940	Mount Olive, Town of	13.60%	15.24%		0.14%		
99623		Mt Olive Housing Authority	13.60%					
99624		Washington Housing Authority	13.60%					
99631	70980	Fremont, Town of	13.60%	15.24%		0.14%		
99651	72270	Pikeville, Town of	13.60%	15.24%		0.14%		
99661	72977	Walnut Creek, Village of	13.60%	15.24%		0.14%		
99701	73075	Wilkes County	13.64%	15.24%	0.04%	0.14%		
99705		Appalachian Regional Library	13.60%					
99711	72105	North Wilkesboro, Town of	13.68%	15.24%	0.08%	0.14%		
99717		North Wilkesboro A.B.C. Board	13.67%		0.07%			
99721	73072	Wilkesboro, Town of	13.65%	15.24%	0.05%	0.14%		
99727		Wilkesboro A.B.C. Board	13.60%					
99801	73110	Wilson County	13.63%	15.24%	0.03%	0.14%		

## Appendix E: Detailed Table of Rates of Contributions Payable by Employers (continued)

Employer Code	LEO Employer Code	Employer	Total Rate**		Death Benefit Rate		12/31/2022 Unfunded Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
			General Employees	Law Enforcement	General Employees	Law Enforcement		
99802		Wilson County Tourism Development Auth	13.60%					
99804		Wilson County A.B.C. Board	13.65%		0.05%			
99811	73100	Wilson, City of	13.63%	15.24%	0.03%	0.14%		
99812		Wilson Economic Dev Council	13.60%					
99818		Wilson Cemetery Commission	13.60%					
99821	72684	Stantonsburg, Town of	13.60%	15.24%		0.14%		
99831	70195	Black Creek, Town of	13.60%	15.24%		0.14%		
99841	71660	Lucama, Town of	13.68%		0.08%			
99851	70870	Elm City, Town of	13.60%					
99901	73170	Yadkin County	13.65%	15.24%	0.05%	0.14%		
99911	73180	Yadkinville, Town of	13.66%	15.24%	0.06%	0.14%		
99921		Jonesville, Town of	13.76%	15.24%	0.16%	0.14%		
99931		East Bend, Town of	13.70%	15.24%	0.10%	0.14%		
99941		Boonville, Town of	13.60%	15.24%		0.14%		
99991		N C Assoc of Co Commissioners	13.63%		0.03%			
99999		N C League of Municipalities	13.63%		0.03%			

\* Must be recalculated annually and adjusted according to each employer's actual experience. The estimated date for liquidation as of the valuation date does not constitute a guarantee that an employer will complete the liquidation as of the estimated date.

\*\* Based on the preliminary contribution rate approved by the Board based on the Employer Contribution Rate Stabilization Policy. Total rate for Law Enforcement employees is subject to reduction for the court cost offset pursuant to G.S. 143-166.50(d).

## Appendix F: Unfunded Contribution Rates and Estimated Dates of Liquidation by Employer

The table below provides the contribution rates payable for the year beginning July 1, 2024 by the participating employers paying prior service liability rate at the valuation date.

Employer Code	LEO Employer Code	Employer	12/31/2022 Prior Service Liability	7/1/2024 Prior Service Rate	Original Date of Liquidation of Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
90114		Mebane, City of	2,278,747	10.50%	6/30/2033	6/30/2025
90307		Sparta A.B.C. Board	1,779	0.53%	12/31/2028	12/31/2028
90507		West Jefferson A.B.C. Board	17,946	3.22%	6/30/2035	6/30/2026
90602	70090	Avery County Fire Commission	243,671	6.25%	12/31/2038	6/30/2033
90651	72724	Sugar Mountain, Town of	98,651		3/31/2027	6/30/2024
90861	71556	Lewiston Woodville, Town of	996		6/30/2024	6/30/2024
91009		Brunswick County Tourism Authority	4,592	1.01%	9/30/2031	6/30/2025
91013		Southeast Brunswick Sanitary District	221,620	5.81%	9/30/2039	6/30/2039
91026		Navassa, Town of	162,807	7.27%	6/30/2035	6/30/2035
91308		Cabarrus County Tourism Authority	40,009	0.67%	9/30/2032	6/30/2030
91681	70080	Atlantic Beach, Town of	515,492	6.23%	3/31/2028	6/30/2025
92661	72676	Spring Lake, Town of	351,075	6.62%	9/30/2024	9/30/2024
92671		Falcon Town of	10,121	6.42%	6/30/2026	6/30/2026
92913		Thomasville Housing Authority	64,263		6/30/2027	6/30/2024
92941		Midway, Town of	17,158	2.29%	3/31/2038	3/31/2038
93031	70624	Cooleemee, Town of	6,831		9/30/2027	6/30/2024
93212		Durham Convention & Visitors Bureau	330,943	5.71%	9/30/2028	6/30/2027
93647		Cherryville A.B.C. Board	-		12/31/2023	6/30/2023
94031		Walstonburg, Town of	36,975	7.28%	9/30/2033	9/30/2033
94437		Canton A.B.C. Board	30,568	4.88%	12/31/2027	6/30/2027
95103		Benson Housing Authority	147,895	3.93%	12/31/2036	12/31/2036
95106		Archer Lodge, Town of	1,673		9/30/2037	6/30/2024
95113		Smithfield Housing Authority	-		6/30/2023	6/30/2023
95122		Micro, Town of	11,236	2.47%	3/31/2036	6/30/2029
95504		Lincoln County A.B.C. Board	-		12/31/2028	6/30/2023
96503		Wilmington Housing Authority	267,313		6/30/2024	6/30/2024
96681	72591	Seaboard, Town	21,907	4.71%	12/31/2025	12/31/2025
96708		Onslow Water & Sewer Authority	384,243	1.22%	12/31/2028	6/30/2028
97013		Elizabeth City Pasquotank County TDA	25,029	2.27%	6/30/2033	6/30/2029
97423		Farmville Housing Authority	53,444	6.94%	3/31/2028	6/30/2025

## Appendix F: Unfunded Contribution Rates and Estimated Dates of Liquidation by Employer (continued)

Employer Code	LEO Employer Code	Employer	12/31/2022 Prior Service Liability	7/1/2024 Prior Service Rate	Original Date of Liquidation of Prior Service Liability	Estimated Date of Liquidation of Prior Service Liability*
97840	71750	Maxton, Town of	-		6/30/2027	6/30/2023
97841		Parkton, Town of	20,152	2.05%	9/30/2035	9/30/2035
98002		Rowan Convention & Visitors Bureau	102		6/30/2026	6/30/2024
98008		Rowan Co Soil & Water Conv Dist	-		6/30/2023	6/30/2023
98313		Laurinburg Housing Authority	452,487	6.65%	12/31/2026	12/31/2026
98331	71051	Gibson, Town of	1,228	1.59%	3/31/2025	3/31/2025
99014		Indian Trail A.B.C. Board	35,584	1.72%	6/30/2039	6/30/2039
99022		Mineral Springs, Town of	51,136	4.70%	9/30/2034	9/30/2034
99071		Weddington, Town of	26,525	3.01%	3/31/2029	3/31/2029
99207		Wake County Housing Authority	1,049,184	10.41%	12/31/2032	6/30/2032
99321	72991	Warrenton, Town of	519,054	6.85%	9/30/2037	6/30/2032
99531	72596	Seven Devils, Town of	125,776	4.98%	6/30/2026	6/30/2026

\* Must be recalculated annually and adjusted according to each employer's actual experience. The estimated date for liquidation as of the valuation date does not constitute a guarantee that an employer will complete the liquidation as of the estimated date.

## Appendix G: Participating Employers

Employer	Employer Code	LEO Employer Code	Employer	Employer Code	LEO Employer Code
Aberdeen, Town of	96331	70005	B.H.M. Regional Library	90705	
Ahoskie, Town of	94611	70007	Badin, Town of	98451	70103
Alamance Community Fire District	94109		Bailey, Town of	96451	70104
Alamance County	90101	70020	Bakersville, Town of	96121	70105
Alamance Municipal A.B.C. Board	90117		Bald Head Island, Village of	91091	70107
Alamance, Village of	90151		Banner Elk, Town of	90611	70110
Albemarle A.B.C. Board	98417		Bay River Metro Sewerage District	96918	
Albemarle District Jail Commission	97008		Bayboro, Town of	96911	
Albemarle Regional Health Services	90096		Bayleaf Fire Department	99208	
Albemarle Regional Library	90805		Beaufort County	90701	70130
Albemarle Regional Planning & Development Comm	92109		Beaufort County A.B.C. Board	90704	
Albemarle, City of	98411	70030	Beaufort Housing Authority	91633	
Alexander County	90201	70032	Beaufort, Town of	91631	70145
Alleghany County	90301	70035	Beech Mountain, Town of	90631	70146
Alliance Behavioral Healthcare	93209		Belhaven, Town of	90731	70147
Andrews, Town of	92021	70036	Belmont Housing Authority	93623	
Angier A.B.C. Board	94347		Belmont, City of	93621	70150
Angier, Town of	94351	70038	Belville, Town of	91020	
Anson County	90401	70040	Benson Housing Authority	95103	
Ansonville, Town of	90451		Benson, Town of	95141	70170
Apex, Town of	99271	70050	Bermuda Run, Town of	93021	
Appalachian District Health Dept	90099		Bertie County	90801	70180
Appalachian Regional Library	99705		Bertie County A.B.C. Board	90804	
Archdale, City of	97651	70063	Bertie-Martin Regional Jail Comm	90808	
Archer Lodge, Town of	95106		Bessemer City, City of	93671	
Ashe County	90501	70065	Bethel, Town of	97441	70157
Asheboro A.B.C. Board	97607		Beulaville, Town of	93111	70160
Asheboro Housing Authority	97613		Biltmore Forest, Town of	91111	70190
Asheboro, City of	97611	70064	Biscoe, Town of	96231	70192
Asheville A.B.C. Board	91127	70072	Black Creek, Town of	99831	70195
Asheville Regional Airport Authority	91128	70074	Black Mountain A.B.C. Board	91154	
Asheville, City of	91121	70070	Black Mountain, Town of	91151	70200
Atlantic Beach, Town of	91681	70080	Bladen County	90901	70210
Aulander, Town of	90811	70082	Bladenboro, Town of	90941	70215
Aurora, Town of	90721	70085	Blowing Rock A.B.C. Board	99527	
Autryville, Town of	98271		Blowing Rock Tourism Development Authority	99508	
Avery County	90601	70090	Blowing Rock, Town of	99521	70220
Avery County Fire Commission	90602	70090	Blue Ridge Fire Department	94532	70220
Avery-Mitchell-Yancey Reg Library	90605		Boiling Spring Lakes A.B.C. Board	91077	
Ayden, Town of	97461	70100	Boiling Spring Lakes, City of	91071	70225

## Appendix G: Participating Employers (continued)

Employer	Employer Code	LEO Employer Code	Employer	Employer Code	LEO Employer Code
Boiling Springs, Town of	92331	70230	Cameron, Town of	96312	70358
Boone, Town of	99511	70240	Candor, Town of	96241	70360
Boonville, Town of	99941		Canton A.B.C. Board	94437	
Braswell Memorial Library	96405		Canton, Town of	94431	70362
Brevard A.B.C. Board	98817		Cape Carteret, Town of	91671	70365
Brevard, City of	98811	70260	Cape Fear Council of Governments	91008	
Bridgeton, Town of	92561		Cape Fear Public Transportation Authority	96512	
Broad River Water Authority	98102		Cape Fear Public Utility Authority	96507	
Broadway, Town of	95321	70265	Cape Fear Regional Jetport	91015	
Brookford, Town of	91861	70270	Carolina Beach, Town of	96521	70375
Brunswick Co Dept of Social Services	91006		Carolina Shores Town of	91024	
Brunswick Co Health Dept	91003		Carrboro, Town of	96821	70372
Brunswick County	91001	70280	Carteret County	91601	70380
Brunswick County A.B.C. Board	91004		Carteret County A.B.C. Board	91604	70385
Brunswick County Tourism Authority	91009		Carthage, Town of	96391	70390
Brunswick Regional Water and Sewer H2GO	91042		Cary, Town of	99221	70400
Brunswick, Town of	92421		Caswell Beach, Town of	91051	70405
Bryson City A.B.C. Board	98717		Caswell Co Dept of Social Services	91706	
Bryson City, Town of	98711	70285	Caswell County	91701	70415
Buncombe County	91101	70290	Caswell County A.B.C. Board	91704	
Bunn A.B.C. Board	93537		Catawba County	91801	70430
Bunn, Town of	93531	70295	Catawba County A.B.C. Board	91804	70440
Burgaw, Town of	97111	70300	Catawba, Town of	91881	70441
Burke Co Dept of Social Services	91206		Cedar Point, Town of	91691	
Burke Co Health Dept	91203		Centennial Authority	99222	
Burke County	91201	70310	Centralina Council Of Governments	96009	
Burke County Tourism Dev. Authority	91208		Chadbourn, Town of	92441	70450
Burlington, City of	90111	70320	Chapel Hill, Town of	96811	70470
Burnsville, Town of	90011	70330	Charlotte Firemen's Ret Sys	96018	
Butner, Town of	93931		Charlotte Housing Authority	96003	
Cabarrus Co Public Health Auth	91306		Charlotte Mecklenburg Public Library	96005	
Cabarrus County	91301	70340	Charlotte Regional Visitors Authority	96012	
Cabarrus County Tourism Authority	91308		Charlotte, City of	96011	70480
Cajah's Mountain, Town of	91461		Chatham Co Housing Auth	91903	
Calabash A.B.C. Board	91007		Chatham County	91901	70490
Calabash, Town of	91010		Chatham County A.B.C. Board	91904	
Caldwell County	91401	70350	Cherokee County	92001	70500
Calypso, Town of	93171		Cherryville A.B.C. Board	93647	
Camden County	91501	70357	Cherryville, City of	93641	70520
Camden County A.B.C. Board	91504		China Grove, Town of	98041	70522

## Appendix G: Participating Employers (continued)

Employer	Employer Code	LEO Employer Code	Employer	Employer Code	LEO Employer Code
Choanoke Public Transportation Auth	96612		Creedmoor, City of	93921	70660
Chocowinity, Town of	90751	70525	Creswell, Town of	99431	
Chowan County	92101	70530	Cumberland Co A.B.C. Board	92604	70685
Chowan County A.B.C. Board	92104		Cumberland County	92601	70680
Claremont, City of	91821	70535	Currituck Co A.B.C. Board	92704	
Clarkton, Town of	90931	70537	Currituck County	92701	70700
Clay County	92201	70538	Dallas, Town of	93651	70705
Clay County A.B.C. Board	92214		Dare County	92801	70720
Clayton, Town of	95131	70540	Dare County A.B.C. Board	92804	70721
Clemmons Fire Department	93442		Dare County Tourism Board	92802	
Clemmons, Village of	93441		Davidson County	92901	70723
Cleveland County	92301	70550	Davidson, Town of	96081	70724
Cleveland County Water	92302		Davie County	93001	70725
Cleveland, Town of	98091	70552	Davie Soil and Water Conservation Dist	93009	
Clinton A.B.C. Board	98218		Denton, Town of	92921	70730
Clinton, City of	98211	70555	Dobson A.B.C. Bd	98627	
Coastal Carolina Regional Airport	92506		Dobson, Town of	98621	70735
Coastal Regional Solid Waste Mngt Auth	92508		Drexel, Town of	91221	70745
Coats, Town of	94341	70570	Duck, Town of	92861	70755
Cofield, Town of	94641		Dunn A.B.C. Board	94317	
Colerain, Town of	90813	70575	Dunn Housing Authority	94313	
Colfax Volunteer Fire Department	94168		Dunn, City of	94311	70760
Columbia, Town of	98911		Duplin County	93101	70770
Columbus A.B.C. Board	97527		Durham Convention & Visitors Bureau	93212	
Columbus County	92401	70580	Durham County	93201	70790
Columbus, Town of	97521	70581	Durham County A.B.C. Board	93204	70800
Concord A.B.C. Board	91317		Durham Hwy Fire Protection Assoc	99212	
Concord, City of	91311	70590	Durham, City of	93211	70780
Connelly Springs, Town of	91261		East Albemarle Regional Library	97005	
Conover, Town of	91851	70610	East Bend, Town of	99931	
Contennea Metropolitan Sewerage Dist	97408		East Spencer Housing Authority	98023	
Conway, Town of	96641	70620	East Spencer, Town of	98021	70812
Cooleemee, Town of	93031	70624	Eastern Band of Cherokee Indians	70505	70505
Cornelius, Town of	96051	70625	Eastern Carolina Reg'l Housing Auth	99603	
Cove City, Town of	92571		Eastern Wayne Sanitary Dist	99610	70505
Cramerton A.B.C. Board	93604		Eastover, Town of	92681	
Cramerton, Town of	93631	70640	Eastpointe Human Services	93108	
Craven Co A.B.C. Bd	92504		Eden A.B.C. Board	97957	
Craven County	92501	70650	Eden, City of	97951	70815
Craven-Pamlico-Carteret Regional Library	92505		Edenton, Town of	92111	70817



## Appendix G: Participating Employers (continued)

Employer	Employer Code	LEO Employer Code	Employer	Employer Code	LEO Employer Code
Edgecombe County	93301	70820	Forsyth County	93401	70951
Edgecombe County A.B.C. Board	93304		Four Oaks, Town of	95151	70954
Edgecombe County Memorial Library	93305		Foxfire Village	96381	70953
Electricities of NC	99210		Franklin County	93501	70960
Elizabeth A.B.C. Board	90917		Franklin, Town of	95611	70955
Elizabeth City	97011	70840	Franklinton A.B.C Board	93517	
Elizabeth City Pasquotank County TDA	97013		Franklinton, Town of	93511	70970
Elizabeth City-Pasquotank Co Airport Auth	97012		Fremont, Town of	99631	70980
Elizabeth City-Pasquotank Co Industrial Development	97018		Fuquay-Varina, Town of	99261	70990
Elizabethtown, Town of	90911	70850	Garland, Town of	98241	71000
Elk Park, Town of	90641	70860	Garner Fire Dept	99252	
Elkin, Town of	98641	70855	Garner, Town of	99251	71010
Ellenboro, Town of	98161		Garysburg, Town of	96631	71020
Ellerbe, Town of	97731		Gaston County	93601	71030
Elm City, Town of	99851	70870	Gaston County Economic Dev Commission	93618	
Elon, Town of	90131	70880	Gaston, Town of	96651	71032
Emerald Isle, Town of	91651	70890	Gastonia A.B.C. Board	93617	
Enfield, Town of	94211	70895	Gastonia, City of	93611	71040
Erwin, Town of	94331	70900	Gates County	93701	71050
Fair Bluff, Town of	92431	70908	Gates County A.B.C. Board	93704	71052
Fairmont Housing Authority	97823		Gibson, Town of	98331	71051
Fairmont, Town of	97821	70910	Gibsonville A.B.C. Board	94157	
Faison, Town of	93141	70920	Gibsonville, Town of	94151	71060
Faith, Town of	98081		Glen Alpine, Town of	91241	71065
Falcon Town of	92671		Goldsboro Housing Authority	99613	
Farmville Housing Authority	97423		Goldsboro, City of	99611	71070
Farmville, Town of	97421	70930	Goldston-Gulf Sanitary District	91908	
Fayetteville Metropolitan Housing Auth	92613		Graham Co Health Dept	93803	
Fayetteville Public Works Commission	92614		Graham County	93801	71085
Fayetteville, City of	92611	70940	Graham County Dept of S S	93806	
First Craven Sanitary Dist	92502		Graham, City of	90121	71080
Flat Rock, Village of	94531		Granite Falls A.B.C. Board	91417	
Fletcher A.B.C. Board	94547		Granite Falls, Town of	91411	71090
Fletcher, Town of	94541	70943	Granite Quarry, Town of	98061	71105
Fontana Regional Library	95005		Granville Co A.B.C. Bd	93904	
Foothills Regional Airport Authority	94415		Granville County	93901	71110
Forest City A.B.C. Board 168	98107		Granville County Hospital	93906	
Forest City Housing Authority	98113		Granville-Vance Public Health	93908	
Forest City, Town of	98111	70950	Greater Statesville Development Corp	94908	
Fork Township Sanitary Dist	99602		Green Level, Town of	90161	

## Appendix G: Participating Employers (continued)

Employer	Employer Code	LEO Employer Code	Employer	Employer Code	LEO Employer Code
Greene County	94001	71130	Highlands A.B.C. Board	95617	
Greene County A.B.C. Board	94004		Highlands, Town of	95621	71335
Greensboro A.B.C. Bd	94117	71150	Hildebran, Town of	91251	
Greensboro, City of	94111	71140	Hillsborough, Town of	96831	71360
Greenville Housing Authority	97413		Hobgood, Town of	94251	
Greenville Utilities Commission	97412		Hoke County	94701	71370
Greenville, City of	97411	71160	Hoke County A.B.C. Board	94704	
Grifton, Town of	97431	71170	Holden Beach, Town of	91014	71375
Grimesland, Town of	97471		Holly Ridge, Town of	96731	71380
Grover, Town of	92351	71178	Holly Springs, Town of	99202	71385
Guilford County	94101	71180	Hookerton, Town of	94011	
Guilford Fire District #13 Inc	94118		Hope Mills, Town of	92631	71390
Guil-Rand Fire Department	94102		Hot Springs Housing Authority	95733	
Halifax County	94201	71200	Hudson, Town of	91431	71395
Halifax County A.B.C. Board	94204		Huntersville, Town of	96041	71397
Halifax County Tourism Development Authority	94205		Hyde County	94801	71400
Hamilton, Town of	95831		Hyde County A.B.C. Board	94804	
Hamlet A.B.C. Board	97717		Indian Beach, Town of	91661	71405
Hamlet, City of	97721	71220	Indian Trail A.B.C. Board	99014	
Harnett County	94301	71230	Indian Trail, Town of	99051	
Harrisburg, Town of	91441		Iredell County	94901	71420
Havelock, City of	92531	71240	Isothermal Planning and Dev Comm	98109	
Haw River, Town of	90141	71245	J C Holiday Mem Library	98205	
Haywood County	94401	71250	Jackson County	95001	71430
Haywood County Tourism Development Authority	94403		Jackson County A.B.C. Board	95017	
Henderson County	94501	71275	Jackson County Tourism Development Authority	95010	
Henderson, City of	99111	71270	Jackson, Town of	96661	71435
Hendersonville A.B.C. Bd	94517		Jacksonville, City of	96711	71440
Hendersonville, City of	94511	71280	Jamestown, Town of	94131	71442
Hertford A.B.C. Board	97217	71305	Jamesville, Town of	95841	
Hertford County	94601	71310	Jefferson, Town of	90511	71447
Hertford County A.B.C. Board	94604	71320	Johnston County	95101	71460
Hertford Housing Auth	97213		Johnston County A.B.C. Board	95104	
Hertford, Town of	97211	71300	Johnston Health Center	95110	
Hickory Conover Tourism Dev Auth	91812		Jones County	95201	71465
Hickory Public Housing Authority	91813		Jones County A.B.C. Board	95204	
Hickory, City of	91811	71330	Jonesville, Town of	99921	
High Country A.B. C. Board	90617		Junaluska Sanitary District	94408	
High Point A.B.C. Bd	94127		Kannapolis, City of	91331	71468
High Point, City of	94121	71340	Kenansville A.B.C. Board	93127	

## Appendix G: Participating Employers (continued)

Employer	Employer Code	LEO Employer Code	Employer	Employer Code	LEO Employer Code
Kenansville, Town of	93121	71469	Lilesville, Town of	90421	71584
Kenly, Town of	95171	71472	Lillington, Town of	94321	71585
Kernersville, Town of	93421	71470	Lincoln County	95501	71590
Kerr Area Transportation Authority	99110		Lincoln County A.B.C. Board	95504	
Kerr-Tar Regional Council of Govts	99109		Lincolnton A.B.C. Board	95517	
Kill Devil Hills, Town of	92821	71480	Lincolnton Housing Authority	95513	
King, City of	98521	71487	Lincolnton, City of	95511	71600
Kings Mountain A.B.C. Board	92327		Lincolnton-Lincoln County Airport Authority	99219	
Kings Mountain, City of	92321	71490	Linden, Town of	92651	
Kinston Housing Authority	95413		Littleton, Town of	94261	71615
Kinston, City of	95411	71500	Locust A.B.C. Board	98404	
Kinston-Lenoir Co Pub Library	95415		Locust, City of	98431	71620
Kitty Hawk, Town of	92851	71507	Longview, Town of	91841	71640
Knightdale, Town of	99291	71510	Louisburg A.B.C. Board	93527	
Kure Beach, Town of	96541	71515	Louisburg, Town of	93521	71650
Lagrange, Town of	95431	71517	Lowell, City of	93661	71655
Lake Lure, Town of	98131	71518	Lower Cape Fear Water & Sewer Auth	96508	
Lake Waccamaw A.B.C. Board	92427		Lucama, Town of	99841	71660
Lake Waccamaw, Town of	92461	71519	Lumber River Council of Governments	97802	
Landis, Town of	98051	71522	Lumberton A.B.C. Board	97817	
Land-of-Sky Regional Council	91102		Lumberton Airport Comm	97818	
Laurel Park A.B.C. Board	94527		Lumberton, City of	97811	71670
Laurel Park, Town of	94521	71525	Macclesfield, Town of	93341	
Laurinburg Housing Authority	98313		Macon County	95601	71680
Laurinburg, City of	98311	71530	Madison A.B.C. Board	97947	
Laurinburg-Maxton Airport Commission	98308		Madison County	95701	71684
Lawndale, Town of	92341	71532	Madison, Town of	97941	71683
Lee County	95301	71535	Madison-Mayodan Recreation Comm	97948	
Leland, Town of	91002	71540	Maggie Valley A.B.C. Board	94427	
Lenoir A.B.C. Board	91457		Maggie Valley Sanitary Dist	94428	
Lenoir County	95401	71550	Maggie Valley, Town of	94421	71685
Lenoir County A.B.C. Board	95404		Magnolia, Town of	93191	71690
Lenoir Housing Authority	91423		Maiden, Town of	91831	71700
Lenoir, City of	91451	71552	Manteo, Town of	92831	71705
Lewiston Woodville, Town of	90861	71556	Marion A.B.C. Board	95917	
Lewisville, Town of	93451		Marion, Town of	95911	71710
Lexington A.B.C. Board	92917		Mars Hill, Town of	95711	71718
Lexington, City of	92931	71570	Marshall, Town of	95721	71711
Liberty A.B.C. Board	97637		Marshville, Town of	99021	71720
Liberty, Town of	97631	71582	Martin Co Travel & Tourism Auth	95802	

## Appendix G: Participating Employers (continued)

Employer	Employer Code	LEO Employer Code	Employer	Employer Code	LEO Employer Code
Martin County	95801	71730	Moore County Airport Authority	96310	
Martin County A.B.C. Board	95804		Moore County Tourism Development Authority	96305	
Martin-Tyrrell-Washington Dist Health Dept	90092		Mooresville A.B.C. Board	94927	
Marvin, Village of	99081		Mooresville Housing Authority	94923	
Matthews, Town of	96071	71740	Mooresville, City of	94921	71850
Maury Sanitary Land District	94002		Morehead City, Town of	91611	71860
Maxton A.B.C. Board	97847		Morganton A.B.C. Board	91217	71880
Maxton, Town of	97840	71750	Morganton Housing Authority	91233	
Mayodan, Town of	97921	71755	Morganton, City of	91231	71870
Maysville, Town of	95221	71745	Morrisville, Town of	99206	71882
Mcadenville, Town of	93610	71760	Morven, Town of	90461	
McDowell County	95901	71762	Mount Airy Alcoholic Board of Control	98637	
Mebane, City of	90114		Mount Airy, City of	98631	71910
Mecklenburg County	96001	71770	Mount Gilead, Town of	96251	71920
Mecklenburg County A.B.C. Board	96004	71780	Mount Holly, City of	93691	71930
Mecklenburg Emer Med Svcs Agcy	96008		Mount Olive, Town of	99621	71940
Metro Sewerage Dist of Buncombe County	91108		Mount Pleasant A.B.C. Board	91327	
Micro, Town of	95122		Mount Pleasant, Town of	91321	
Mid-Carolina Council Of Governments	92607		Mt Olive Housing Authority	99623	
Middlesex, Town of	96431	71785	Murfreesboro, Town of	94621	71970
Mideast Commission	90709		Murphy A.B.C. Board	92017	
Midland, Town of	91341		Murphy, Town of	92011	71975
Midway, Town of	92941		N C Assoc of Co Commissioners	99991	
Mills River, Town of	94551		N C League of Municipalities	99999	
Mineral Springs, Town of	99022		Nags Head, Town of	92811	71980
Mint Hill, Town of	96031	71775	Nantahala Regional Library	92005	
Misenheimer, Village of	98414	71786	Nash County	96401	71990
Mitchell County	96101	71788	Nash County A.B.C. Board	96404	72000
Mitchell Soil & Water Conservation Dist	96102		Nashville, Town of	96421	71995
Mocksville, Town of	93011	71790	Navassa, Town of	91026	
Mocksville-Cooleemee A.B.C. Board	93028		Neuse Regional Library	95405	
Monroe A.B.C. Board	99017		Neuse Regional Library-Greene County	94005	
Monroe Housing Authority	99013		Neuse Regional Library-Jones County	95205	
Monroe, City of	99011	71800	Neuse River Council of Governments	92507	
Monroe-Union County Economic Development Commission	94417		New Bern, City of	92511	72020
Montgomery County	96201	71815	New Edenton Housing Auth	92113	
Montgomery-Municipal A.B.C. Board	96204		New Hanover Airport Auth	96502	72024
Montreat, Town of	91161	71820	New Hanover County	96501	72030
Moore County	96301	71830	New Hanover County A.B.C. Board	96504	
Moore County A.B.C. Board	96304	71840	New London, Town of	98471	

## Appendix G: Participating Employers (continued)

Employer	Employer Code	LEO Employer Code	Employer	Employer Code	LEO Employer Code
New Reidsville Housing Auth	97913		Peachland, Town of	90441	
Newland, Town of	90621	72032	Pembroke Housing Authority	97853	
Newport, Town of	91621	72035	Pembroke, Town of	97851	72228
Newton Grove, Town of	98231	72050	Pender County	97101	72235
Newton, City of	91871	72040	Pender County A.B.C. Board	97104	
Norlina, Town of	99311	72055	Perquimans County	97201	72245
North Topsail Beach, Town of	96751	72789	Person Co A.B.C. Bd	97304	
North Wilkesboro A.B.C. Board	99717		Person County	97301	72250
North Wilkesboro, Town of	99711	72105	Pettigrew Regional Library	99405	
Northampton County	96601	72060	Piedmont Triad Airport Authority	72265	72265
Northampton County A.B.C. Board	96604		Piedmont Triad Reg Water Auth	94112	
Northwest, City of	91012	72076	Piedmont Triad Regional Council	93406	
Northwestern Regional Library	90305		Pikeville, Town of	99651	72270
Norwood A.B.C. Bd	98427		Pilot Mountain A.B.C. Board	98607	
Norwood, Town of	98421	72110	Pilot Mountain, Town of	98611	72280
Oak City, Town of	95821		Pine Knoll Shores, Town of	91641	72290
Oak Island A.B.C. Bd	91027		Pine Level, Town of	95161	72295
Oak Island, Town of	91021	71630	Pinebluff, Town of	96361	72285
Oak Ridge, Town of	94161		Pinecroft-Sedgefield Fire Dist Inc	94108	
Oakboro, Town of	98441	72120	Pinehurst, Village of	96351	72287
Ocean Isle Beach A.B.C.	91067		Pinetops, Town of	93331	72296
Ocean Isle Beach, Town of	91061	72135	Pineville, Town of	96021	72300
Ocracoke Sanitary Dist	94812		Pink Hill, Town of	95421	72305
Old Fort, Town of	95921	72140	Pitt County	97401	72310
Onslow County	96701	72150	Pitt County A.B.C. Board	97404	72320
Onslow County A.B.C. Board	96704	72160	Pitt-Greenville Conv & Visitors	97402	
Onslow Water & Sewer Authority	96708		Pittsboro, Town of	91921	72330
Orange County	96801	72170	Pleasant Garden Fire Dept	95908	
Orange County A.B.C. Board	96804		Plymouth Housing Authority	99413	
Orange Water and Sewer Authority	96808		Plymouth, Town of	99411	72335
Oriental, Town of	96912	72195	Polk County	97501	72340
Oxford Housing Authority	93913		Polkton, Town of	90431	72345
Oxford, City of	93911	72200	Pollocksville, Town of	95211	
Pamlico County	96901	72210	Princeton, Town of	95181	72349
Parkton, Town of	97841		Princeville, Town of	93351	72351
Partners Behavioral Health Management	93609		Public Library of Johnston Co and Smithfield	95105	
Pasquotank Co A.B.C. Board	97004		Raeford, Town of	94711	72355
Pasquotank County	97001	72220	Raleigh Housing Authority	99213	
Pasquotank-Camden Ambulance Service	97002		Raleigh, City of	99211	72360
Pasquotank-Camden Library	97015		Raleigh-Durham Airport Authority	99218	72370

## Appendix G: Participating Employers (continued)

Employer	Employer Code	LEO Employer Code	Employer	Employer Code	LEO Employer Code
Ramseur, Town of	97641	72375	Rowan Convention & Visitors Bureau	98002	
Randleman A.B.C. Board	97627		Rowan County	98001	72490
Randleman Housing Authority	97623		Rowan County A.B.C. Board	98004	72500
Randleman, City of	97621	72377	Rowland, Town of	97861	72510
Randolph County	97601	72380	Roxboro Housing Authority	97302	
Ranlo, Town of	93681	72390	Roxboro, City of	97311	72520
Red Springs A.B.C. Board	97877		Rural Hall, Town of	93431	
Red Springs, Town of	97871	72395	Rutherford College, Town of	91214	
Region D Council of Governments	99502		Rutherford County	98101	72530
Reidsville A.B.C. Board	97917		Rutherford Polk McDowell Dist Brd of Health	98103	
Reidsville, City of	97911	72400	Rutherfordton A.B.C. Board	98147	
Rhodhiss, Town of	91414		Rutherfordton, Town of	98141	72535
Rich Square, Town of	96611	72432	Salemburg, Town of	98221	72547
Richlands, Town of	96741	72420	Salisbury Housing Authority	98013	
Richmond County	97701	72430	Salisbury, City of	98011	72550
River Bend, Town of	92541	72435	Saluda, City of	97531	72560
Roanoke Rapids Sanitary District	94209		Sampson County	98201	72563
Roanoke Rapids, City of	94221	72440	Sandhill Regional Library	97705	
Robbins, Town of	96341	72443	Sandhills Center	96318	
Robbinsville, Town of	93821		Sanford A.B.C. Board	95317	
Robersonville Authority	95853		Sanford, City of	95311	72565
Robersonville, Town of	95851	72445	Sawmills, Town of	91421	
Robeson County	97801	72450	Scotland County	98301	72580
Robeson County Housing Authority	97803		Scotland County A.B.C. Board	98304	
Robeson County Public Library	97805		Scotland Neck, Town of	94241	72590
Rockingham A.B.C. Board	97727		Seaboard, Town	96681	72591
Rockingham Authority	97713		Seagrove, Town of	72593	72593
Rockingham County	97901	72470	Selma Housing Authority	95123	
Rockingham, City of	97711	72460	Selma, Town of	95121	72594
Rockwell, Town of	98071	72475	Seven Devils, Town of	99531	72596
Rocky Mount, City of	93321	72480	Severn, Town of	96671	72595
Rocky Mount-Wilson Airport Authority	93323		Shallotte A.B.C. Board	91057	
Rocky Mt Housing Authority	93333		Shallotte, Town of	91081	72597
Rolesville, Town of	99203	72485	Sharpsburg, Town of	96461	72600
Roper, Town of	99421		Shelby A.B.C. Board	92317	
Rose Hill, Town of	93161	72487	Shelby, City of	92311	72610
Roseboro A.B.C. Board	98237		Sheppard Memorial Library	97405	
Roseboro, Town of	98261	72486	Siler City A.B.C. Board	91917	
Rowan Co Housing Authority	98003		Siler City, Town of	91911	72625
Rowan Co Soil & Water Conv Dist	98008		Simpson, Village of	97481	72626

## Appendix G: Participating Employers (continued)

Employer	Employer Code	LEO Employer Code	Employer	Employer Code	LEO Employer Code
Skyland Vol Fire Dept	91138		Sunset Beach, Town of	91041	72723
Smithfield Housing Authority	95113		Surf City, Town of	97131	72725
Smithfield, Town of	95111	72630	Surry County	98601	72730
Snow Hill, Town of	94021		Swain County	98701	72740
South Eastern Economic Development Comm	90918		Swansboro, Town of	96721	72745
South Granville Water and Sewer Authority	93910		Swepsonville, Town of	96722	
Southeast Brunswick Sanitary District	91013		Sylva, Town of	95011	72750
Southern Pines, Town of	96311	72640	Tabor City, Town of	92451	72760
Southern Shores, Town of	92841	72645	Tarboro Redevelopment Commission	93317	
Southern Wayne Sanitary District	99609		Tarboro, Town of	93311	72770
Southport A.B.C. Board	91017		Taylorsville, Town of	90211	72775
Southport, City of	91011	72650	Taylorstown, Town of	96302	72776
Southwestern NC Planning & Econ Dev Comm	95008		Teachey, Town of	93181	
Sparta A.B.C. Board	90307		Thomasville A.B.C. Board	92914	
Sparta, Town of	72657	72657	Thomasville Housing Authority	92913	
Spencer, Town of	98031	72665	Thomasville, City of	92911	72780
Spindale, Town of	98121	72670	Tobaccoville, Village of	93471	
Spring Hope, Town of	96411	72675	Toe River Health District	90098	
Spring Lake, Town of	92661	72676	Topsail Beach, Town of	97121	72790
Spruce Pine, Town of	96111	72678	Transylvania County	98801	72800
St James, Town of	91032		Trent Woods, Town of	92521	72810
St Paul's Brd of Alcoholic CTL	97837		Triad Municipal A.B.C. Board	93417	73140
St Paul's, Town of	97831	72540	Triangle J Council of Governments	93219	
Stallings, Town of	96061	72679	Trillium Health Resources	92513	
Stanfield, Town of	98481	72680	Trinity, City of	97661	
Stanley, Town of	93602	72682	Troutman A.B.C. Board	94937	
Stanly County	98401	72683	Troutman, Town of	94931	72815
Stantonsburg, Town of	99821	72684	Troy, Town of	96221	72822
Star, Town of	96211	72685	Tryon A.B.C. Board	97517	
Statesville A.B.C. Board	94917	72710	Tryon, Town of	97511	72823
Statesville, City of	94911	72700	Tuckaseegee Water Authority	95002	
Stedman, Town of	92621	72715	Turkey, Town of	98251	
Stokes County	98501	72720	Tyrrell Co A.B.C. Board	98904	
Stokesdale, Town of	94537		Tyrrell County	98901	72825
Stoneville, Town of	97931	72721	Union County	99001	72830
Stovall, Town of	93914		Unionville, Town of	99061	
Sugar Mountain, Town of	90651	72724	Upper Coastal Plain Council of Governments	93309	
Summerfield Fire District	94172		Valdese A.B.C. Board	94947	
Summerfield, Town of	94171		Valdese Housing Authority	91213	
Sunset Beach A.B.C. Board	91047		Valdese, Town of	91211	72883

## Appendix G: Participating Employers (continued)

Employer	Employer Code	LEO Employer Code	Employer	Employer Code	LEO Employer Code
Vance County	99101	72890	Weaverville A.B.C. Board	91147	
Vance County A.B.C. Bd	99104		Weaverville, Town of	91141	73016
Vanceboro, Town of	92551	72910	Weddington, Town of	99071	
Vass, Town of	96321	72920	Weldon, Town of	94231	73017
Vaya Health	95009		Wendell, Town of	99231	73020
Wade, Town of	92641		Wesley Chapel, Village of	99091	
Wadesboro A.B.C. Board	90417		West Buncombe Fire Dept	91120	
Wadesboro Housing Authority	90413		West Columbus A.B.C. Board	92444	
Wadesboro, Town of	90411	72930	West Jefferson A.B.C. Board	90507	
Wagram, Town of	98321	72935	West Jefferson, Town of	90521	73025
Wake County	99201	72940	Westarea Volunteer Fire Dept	92602	
Wake County A.B.C. Board	99204	72950	Western Carteret Interlocal Cooperation Agency	91608	
Wake County Housing Authority	99207		Western NC Regional Air Quality	91107	
Wake Forest, Town of	99281	72960	Western Piedmont Council of Gvmts	91818	
Walkertown, Town of	93461		Western Piedmont Regional Transit Authority	91819	
Wallace A.B.C. Bd	93157		Whispering Pines, Village of	96371	73040
Wallace, Town of	93151	72970	Whitakers, Town of	96441	73045
Walnut Cove A.B.C. Board	98517		White Lake, Town of	90921	73050
Walnut Cove, Town of	98511	72975	Whiteville A.B.C. Board	92417	
Walnut Creek, Village of	99661	72977	Whiteville Housing Authority	92403	
Walstonburg, Town of	94031		Whiteville, City of	92411	73060
Warren County	99301	72980	Wilkes County	99701	73075
Warren County A.B.C. Board	99304	72979	Wilkesboro A.B.C. Board	99727	
Warrenton, Town of	99321	72991	Wilkesboro, Town of	99721	73072
Warsaw A.B.C. Board	93137		Williamston Housing Authority	95813	
Warsaw, Town of	93131	72981	Williamston, Town of	95811	73080
Washington County	99401	72985	Wilmington Housing Authority	96503	
Washington County A.B.C. Board	99404		Wilmington, City of	96531	73090
Washington Housing Authority	99624		Wilson Cemetery Commission	99818	
Washington Park, Town of	90741		Wilson County	99801	73110
Washington, City of	90711	72990	Wilson County A.B.C. Board	99804	
Watauga County	99501	72983	Wilson County Tourism Development Auth	99802	
Watauga County District Tourism Dev Auth	99509		Wilson Economic Dev Council	99812	
Water & Sewer Auth of Cabarrus County	91302		Wilson, City of	99811	73100
Waxhaw A.B.C. Board	99047		Wilson's Mills, Town of	95191	
Waxhaw, Town of	99041	72995	Windsor, Town of	90812	73122
Wayne County	99601	72997	Winfall, Town of	97221	73124
Wayne County A.B.C. Board	99604		Wingate, Town of	99031	73125
Waynesville A.B.C. Board	94412	73015	Winston-Salem Housing Authority	93413	
Waynesville, Town of	94411	73010	Winston-Salem, City of	93411	73130



## Appendix G: Participating Employers (continued)

Employer	Employer Code	LEO Employer Code	Employer	Employer Code	LEO Employer Code
Winterville, Town of	97451	73150	Yadkin Valley A.B.C. Board	98604	
Winton, Town of	94631	73155	Yadkin Valley Sewer Authority	98608	
Woodfin A.B.C. Commission	91104		Yadkinville, Town of	99911	73180
Woodfin Sanitary Water and Sewer Dist	91109		Yancey County	90001	73190
Woodfin, Town of	91171	73160	Yancey Soil & Water Cons	90002	
Woodland, Town of	96621	73162	Yanceyville, Town of	91719	73192
Wrightsville Beach, Town of	96511	73165	Youngsville, Town of	93541	73200
Yadkin County	99901	73170	Zebulon, Town of	99241	73210

# Appendix H: ECRSP Policy

## Local Governmental Employees' Retirement System Board of Trustees

### Employer Contribution Rate Stabilization Policy for the Local Governmental Employees' Retirement System (Adopted 4/29/2021; Amended 1/27/2022)

#### Policy Purpose

This policy provides for continued operation of an Employer Contribution Rate Stabilization Policy (ECRSP) for the Local Governmental Employees' Retirement System (LGERS). On January 21, 2016, the Board of Trustees (Board) of LGERS approved an ECRSP to be in place for fiscal years ending 2017 through 2022. On January 31, 2019, the Board amended the ECRSP for the remainder of its term through fiscal year ending 2022. Having adopted the Experience Study of the 2015-2019 calendar years on January 28, 2021, which will be effective for plan funding purposes for fiscal years ending 2023 and later, the Board wishes to institute an ECRSP effective for contributions during the five fiscal years ending 2023 through 2027.

#### Policy Objectives

This policy establishes how the Board will determine the "required employer contribution rate" and the "required employer contribution for law enforcement officers rate," pursuant to G.S. 128-30(d)(5) and 128-30(d)(9) respectively, during each year the policy is in effect.

#### Definitions

Actuarial Measurement: The result of an analysis by the Board's consulting actuary, presented in a public report, based on actuarial assumptions and methods adopted by the Board for purposes of funding of LGERS.

Law Enforcement Officer (LEO): An employee as defined under G.S. 128-21(11d).

Non-Law Enforcement Officer (Non-LEO): An employee as defined under G.S. 128-21(10) who is not a LEO.

Policy Contribution (LEO): The employer contribution rate with respect to LEOs under this policy.

Policy Contribution (Non-LEO): The employer contribution rate with respect to Non-LEOs under this policy.

Underlying Actuarially Determined Employer Contribution (Non-LEO) or "Underlying ADEC (Non-LEO)": The amount developed annually by the Board's consulting actuary, representing a funding requirement with respect to Non-LEOs according to the Board's actuarial assumptions and methods before applying this policy. For purposes of applying this policy, the Underlying ADEC should be adjusted to include the effect of any benefit change enacted by the General Assembly that was not incorporated in the consulting actuary's annual valuation report. This adjustment should be equal to the Actuarial Measurement of the effect of the benefit change on the Underlying ADEC.

#### Determining the Policy Contribution (Non-LEO)

For the fiscal year ending 2022, which is the last scheduled year of the ECRSP amended as of January 31, 2019, the employer contribution rate with respect to Non-LEOs will be 11.35% of retirement-eligible compensation, prior to any adjustment in the event of a benefit improvement taking effect during fiscal year ending 2022.

# Appendix H: ECRSP Policy

## Local Governmental Employees' Retirement System Board of Trustees

### Employer Contribution Rate Stabilization Policy for the Local Governmental Employees' Retirement System (Adopted 4/29/2021; Amended 1/27/2022) (continued)

#### Rate for Fiscal Years Ending 2023-2024 Prior to Discretionary Adjustment

For each of the two fiscal years ending 2023-2024, the Policy Contribution (Non-LEO) will be equal to the sum of items (1) through (5) below, subject to any adjustment under part (C).

(1): The Policy Contribution (Non-LEO) for the previous fiscal year, excluding any portion that provided for an enacted benefit increase over a single year (for example, an amount that funded a one-time "COLA supplement" during the previous year).

(2): An increase equal to 0.75%.

(3): An adjustment (increase or decrease) for the effect of any enacted benefit change taking effect before or during the fiscal year that was not incorporated in the Policy Contribution (Non-LEO) for the previous fiscal year, equal to the Actuarial Measurement of the effect of the enacted benefit change on the Underlying ADEC (Non-LEO) for the fiscal year. Notwithstanding this provision, in the case of a one-time supplement authorized by the Board under G.S. 128-27(k1) for the fiscal year ending in 2023 in the amount of 2% of each payee's annual pension, the adjustment under this item (3) will be zero.

(4): An adjustment (increase or decrease) for the effect of any changes in actuarial assumptions or methods adopted by the Board that were not incorporated in the Policy Contribution (Non-LEO) for the previous fiscal year, equal to the Actuarial Measurement of the effect on the Underlying ADEC for the fiscal year.

(5): If the Underlying ADEC (Non-LEO) for the fiscal year exceeds the sum of (1) through (4) by more than 1.00% of compensation, an increase equal to 50% multiplied by the difference [Underlying ADEC (Non-LEO) less the sum of items (1) through (4)], rounded to the nearest 0.01% of compensation. If the Underlying ADEC (Non-LEO) does not exceed the sum of (1) through (4) by more than 1.00% of compensation, then this item (5) is equal to 0.00%.

#### Rate for Fiscal Years Ending 2025-2027 Prior to Discretionary Adjustment

For each of the three fiscal years ending 2025-2027, the Policy Contribution (Non-LEO) will be equal to the sum of items (1) through (6), subject to any adjustment under part (C). Items (1) through (5) are the same as defined above under part (A), and item (6) is as follows:

(6): If the sum of (1) through (4) exceeds the Underlying ADEC (Non-LEO) for the fiscal year by more than 1.00% of compensation, a decrease equal to 50% multiplied by the difference [the sum of items (1) through (4), less the Underlying ADEC (Non-LEO)], rounded to the nearest 0.01% of compensation. The decrease under this item (6) is limited to be no larger than 1.50% of compensation. If the sum of (1) through (4) does not exceed the Underlying ADEC (Non-LEO) by more than 1.00% of compensation, then this item (6) is equal to 0.00%.

# Appendix H: ECRSP Policy

## Local Governmental Employees' Retirement System Board of Trustees

### Employer Contribution Rate Stabilization Policy for the Local Governmental Employees' Retirement System (Adopted 4/29/2021; Amended 1/27/2022) (continued)

#### Discretionary Adjustment

If the consulting actuary's projections provided publicly to the Board indicate that the Policy Contribution (Non-LEO) for the year following the immediately upcoming year ("second-following year") will result in an increase to the Policy Contribution (Non-LEO) for the second following year under item (5) of the formula if the Board's actuarial assumptions and methods are met, then the Board may, in its discretion, increase the Policy Contribution (Non-LEO) for the immediately upcoming year in order to reduce or eliminate the anticipated increase in the second-following year. Any such discretionary increase should be no greater than the anticipated increase under item (5) of the formula for the second-following year, according to the consulting actuary's projections.

For example, suppose that the Policy Contribution (Non-LEO) for fiscal year ending 2025 is 13.75%. Suppose further that in January 2025, the consulting actuary's projections provided to the Board indicate a Policy Contribution (Non-LEO) of 14.50% for fiscal year ending 2026, and a likely Policy Contribution (Non-LEO) of 17.00% for fiscal year ending 2027 due to an anticipated increase under item (5) of the formula resulting from actuarial losses through calendar year 2024. In January 2025, the Board may, in its discretion, elect to increase the Policy Contribution (Non-LEO) for fiscal year ending 2026, from 14.50% to a rate such as 15.00%, to reduce the magnitude of the increment between the fiscal years ending 2026 and 2027. The increase should be no greater than the anticipated effect of item (5) of the formula on the rate for fiscal year ending 2027, according to the consulting actuary's projections.

#### Overall Limitation and Required Employer Contribution Rate

The Policy Contribution (Non-LEO) will be no less than the rate of compensation contributed by employees. The Policy Contribution (Non-LEO) will be deemed by the Board to be the annual actuarially determined employer contribution (funding ADEC) with respect to Non-LEOs, and to be the "required employer contribution rate" for LGERS, pursuant to G.S. 128-30(d)(5) as in effect at the date of adoption of this policy.

#### Determining the Policy Contribution (LEO)

According to the ECRSP as amended January 31, 2019, for fiscal years ending 2017 through 2022, the employer contribution rate with respect to LEOs exceeded the rate with respect to Non-LEOs by 0.75% of compensation. Annual actuarial valuation reports and the recently adopted Experience Study have indicated that the difference in the Underlying ADEC rates (without regard to "direct rate smoothing") will be greater than 2.00% of compensation.

This policy establishes the Policy Contribution (LEO) according to the following schedule:

- Fiscal year ending 2023: Policy Contribution (Non-LEO) plus 1.00%.
- Fiscal year ending 2024: Policy Contribution (Non-LEO) plus 1.25%.
- Fiscal year ending 2025: Policy Contribution (Non-LEO) plus 1.50%.
- Fiscal year ending 2026: Policy Contribution (Non-LEO) plus 1.75%.
- Fiscal year ending 2027: Policy Contribution (Non-LEO) plus 2.00%.

## **Appendix H: ECRSP Policy**

### **Local Governmental Employees' Retirement System Board of Trustees**

#### **Employer Contribution Rate Stabilization Policy for the Local Governmental Employees' Retirement System (Adopted 4/29/2021; Amended 1/27/2022) (continued)**

The Policy Contribution (LEO) should further be adjusted for the effect of any enacted benefit change taking effect before or during the fiscal year that has not been taken into account when determining the Policy Contribution (Non-LEO). This could occur, for example, where the benefit change applied only to LEOs. The amount of the adjustment should be equal to the Actuarial Measurement of the effect of the enacted benefit change on the Underlying ADEC (LEO) for the fiscal year.

The Policy Contribution (LEO) will be no less than the rate of compensation contributed by employees. The Policy Contribution (LEO) will be deemed by the Board to be the annual actuarially determined employer contribution (funding ADEC) with respect to LEOs, and to be the "required employer contribution for law enforcement officers rate" for LGERS, pursuant to G.S. 128-30(d)(9) as in effect at the date of adoption of this policy.

#### **Policy Effective Date**

This policy will be effective through the fiscal year ending June 30, 2027. The Board may vote to extend it for any period of time.