

# North Carolina Retirement Systems

Overview of Experience Study for Five-Year Period from  
January 1, 2020 to December 31, 2024

Michael Ribble, FSA, EA, MAAA, FCA  
Elizabeth A. Wiley Hoalt, FSA, EA, MAAA, FCA

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Board of Trustees Meeting

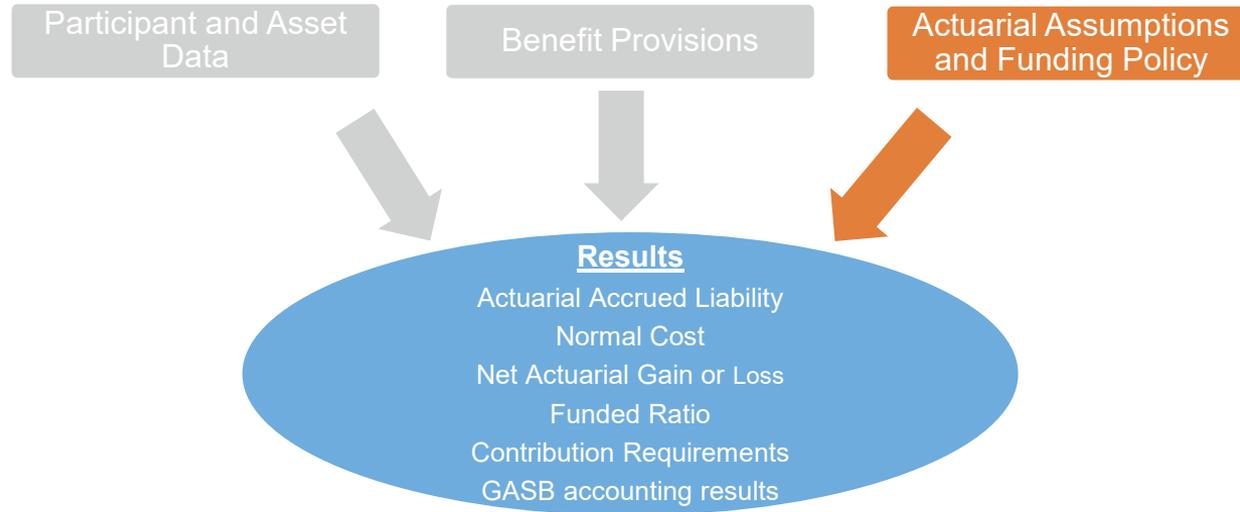


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# Experience Review Process

# Actuarial valuation process



The actuarial assumptions are typically reviewed as part of an experience study. This experience study is conducted to determine the assumptions that will serve as the basis for valuations from December 31, 2025, through December 31, 2029, which calculate the Actuarially Determined Employer Contributions for FYE June 30, 2028, through June 30, 2032.

# Experience Study Process

- **Based on five-year period from January 1, 2020 through December 31, 2024**
  - Compares experience (“Actual”) with Assumptions (“Expected”)
  - Consider trends observed during the previous experience study which covered the period January 1, 2015 through December 31, 2019
- **Make judgments about future trends**
  - Plan-specific experience vs. national trends
  - Long-term vs. short-term factors
- **Propose changes in assumptions (“Proposed”) and funding methods as needed based on the Actuarial Standards of Practice (ASOPs)**
  - ASOP 4 – Measuring Pension Obligations and Determining Pension Plan Costs or Contributions
  - ASOP 27 - Selection of Assumptions for Measuring Pension Obligations
- **Implement effective with the December 31, 2025, actuarial valuation which determines actuarially determined employer contributions (ADECs) effective July 1, 2027**
  - Next experience review is scheduled to be implemented effective with the December 31, 2030, actuarial valuation.

# Key Takeaways for TSERS and LGERS

# Key Takeaways

## Teachers' and State Employees' Retirement System

Valuation Component Reviewed	Observation	Recommendation	Financial Impact
<b>Demographic Assumptions</b>			
1. Post-Decrement Mortality Rate	Experience varies by group	Update to latest tables – Pub-2016 with adjustments based on plan experience	Decrease
2. Active Mortality	Limited exposures	Update to latest tables – Pub-2016	Decrease
3. Mortality Improvement	Updated SOA improvement scale since last study	Update to latest scale – MP-2021	Decrease
4. Service Retirement	Fewer retirements than expected, except LEOs had more retirements than expected	Slightly adjust rates to better align with experience	Decrease
5. Disability Retirement	Limited exposures	No change	None
6. Termination from Active Employment	Fewer terminations than expected, except LEOs had more terminations than expected	Slightly adjust rates to better align with experience	Increase
<b>Economic Assumptions</b>			
7. Investment Return	Current assumption reasonable	No change	None
8. Inflation	Current assumption reasonable	No change	None
9. Merit Increases	Higher increases over the study period than expected	Increase rates	Increase
10. Real Wage Growth	Current assumption reasonable	No change	None
<b>Funding Method</b>			
11. Amortization Method	Current 12-year period is prudent and reflects a conservative approach	Proposed 15-year period balances prudence with generational equity	Decrease
12. Actuarial Cost Method	Current method reasonable	No change	None
13. Asset Valuation Method	Current method reasonable	No change	None
14. Administrative Expenses	Current assumption reasonable	No change	None

# Key Takeaways

## Local Governmental Employees Retirement System – General Employees and Firefighters

Valuation Component Reviewed	Observation	Recommendation	Financial Impact
<b>Demographic Assumptions</b>			
1. Post-Decrement Mortality Rate	More deaths overall	Update to latest tables – Pub-2016 with adjustments based on plan experience	Decrease
2. Active Mortality	Limited exposures	Update to latest tables – Pub-2016	Increase
3. Mortality Improvement	Updated SOA improvement scale since last study	Update to latest scale – MP-2021	Decrease
4. Service Retirement	Fewer retirements over study period than expected	Adjust rates to better align with experience	Decrease
5. Termination from Active Employment	Fewer terminations over study period than expected	Decrease rates	Increase
<b>Economic Assumptions</b>			
7. Investment Return	Current assumption reasonable	No change	None
8. Inflation	Current assumption reasonable	No change	None
9. Merit Increases	Higher increases over the study period than expected	Increase rates	Increase
10. Real Wage Growth	Current assumption reasonable	No change	None
<b>Funding Method</b>			
11. Amortization Method	Current 12-year period is prudent and reflects a conservative approach	Proposed 15-year period balances prudence with generational equity	Decrease
12. Actuarial Cost Method	Current method reasonable	No change	None
13. Asset Valuation Method	Current method reasonable	No change	None
14. Administrative Expenses	Actual expenses lower than assumption	Decrease to 0.10% of payroll	Decrease

# Key Takeaways

## Local Governmental Employees Retirement System – Law Enforcement Officers

Valuation Component Reviewed	Observation	Recommendation	Financial Impact
<b>Demographic Assumptions</b>			
1. Post-Decrement Mortality Rate	Fewer deaths than expected	Update to latest tables – Pub-2016, as adjusted based on experience of all Safety workers	Increase
2. Active Mortality	Limited exposures	Update to latest tables – Pub-2016	Increase
3. Mortality Improvement	Updated SOA improvement scale since last study	Update to latest scale – MP-2021	Decrease
4. Service Retirement	More retirements over study period than expected, mostly at reduced retirement ages	Increase rates	Decrease, due to more than expected reduced retirements
5. Termination from Active Employment	More terminations in 0-4 years. Fewer in 4+ years than expected	Adjust rates to better match experience	Increase
<b>Economic Assumptions</b>			
7. Investment Return	Current assumption reasonable	No change	None
8. Inflation	Current assumption reasonable	No change	None
9. Merit Increases	Higher increases over the study period than expected	Increase rates	Increase
10. Real Wage Growth	Current assumption reasonable	No change	None
<b>Funding Method</b>			
11. Amortization Method	Current 12-year period is prudent and reflects a conservative approach	Proposed 15-year period balances prudence with generational equity	Decrease
12. Actuarial Cost Method	Current method reasonable	No change	None
13. Asset Valuation Method	Current method reasonable	No change	None
14. Administrative Expenses	Current assumption reasonable	No change	None

# Funding Methodology

## Amortization Method – Key Considerations Behind Recommendation

- Key information sources:
  - Guidance under ASOP 4 - Actuarial Standard of Practice No. 4
  - Non-binding guidance under Actuarial Funding Policies and Practices for Public Pension Plans paper second edition issued by the Conference of Consulting Actuaries Public Plans Community in August 2024 (CCA White Paper 2.0)
  - GFOA's "Core Elements of a Funding Policy for Governmental Pension and OPEB Plans"
- Key considerations:
  - Whether the amortization is open or closed
  - The source of the amortization base (e.g., plan experience, method or assumption changes, or plan provision changes)
  - Pattern of amortization payments, including any period of negative amortization payments (i.e., when the amortization payment for the period is less than the interest accrued)
  - Whether the amortization is positive (losses) or negative (gains)
  - The duration of the actuarial accrued liability
  - The average remaining service lifetime of active members
  - The funded status of the plans

# Actuarial Certification

The information and cost estimates in this presentation were developed for the North Carolina Retirement Systems Division by Gallagher Benefit Services (Gallagher) using generally accepted actuarial principles and techniques in accordance with all applicable Actuarial Standards of Practice (ASOPs) for the purpose of assisting the Board in setting actuarial assumptions and methods to be used in future actuarial valuations. The presentation contains key results of the January 1, 2020 to December 31, 2024 experience study. All recommendations contained in this report are consistent with each other, as appropriate. Interested parties should refer to the December 31, 2024 Actuarial Valuation Reports for each system, for a detailed explanation regarding data, assumptions, methods, plan provisions, applicable ASOPs and disclosures, as well as the “Experience Study for Five-Year Period from January 1, 2020 to December 31, 2024 (“2025 Experience Study”)” presented at the October 30, 2025, Board of Trustees Meeting. This presentation should be considered part of the 2025 Experience Study services and recommendations.

Unless otherwise noted, the data, assumptions, methods, plan provisions, and model associated with the development of these results are the same as those described in the December 31, 2024 valuation report prepared October 2025. Risks inherent in the measurements herein are also the same as those described in that report.

Use of these results for any other purpose or by anyone other than the Board may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the results for that purpose. Because of the risk of misinterpretation of actuarial results, Gallagher should be asked to review any statement to be made on the basis of the results contained in this presentation. Gallagher will not accept any liability for any such statement made without such prior review.

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Michael Ribble and Elizabeth Hoalt are members of the American Academy of Actuaries and met the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States of the American Academy of Actuaries to render the actuarial opinions contained in this presentation. We are available to answer any questions on the material contained in the presentation, or to provide explanations or further details as needed.

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

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

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