

# Actuarial Audit of the School Employees Retirement System of Ohio for Ohio Retirement Study Council

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To ORSC – August 14, 2025  
To SERS – TBD

# Agenda

- Major Findings of Actuarial Review
- Actuarial Assumptions
  - Demographic
  - Economic
  - Healthcare
- Actuarial Methods
- Actuarial Valuation Replication
- Healthcare Review
- Audit Conclusions

# Major Findings of Actuarial Review

- We believe the actuarial math and numbers are correct
  - Our calculations match Cavanaugh MacDonald (CavMac) calculations
  - The CavMac calculations captured key provisions accurately
- Actuarial Assumptions are reasonable, and have been periodically revised based on results of experience studies
- Improved transparency in the CavMac reporting is desirable
  - Development of assumptions
  - Disclosure of calculations
- References
  - Actuarial Standards of Practice (ASOPs)
  - Actuarial Funding Policies and Practices for Public Pension Plans
    - CCA White Paper Second Edition

# Findings of Actuarial Review - Summary

## Actuarial Assumptions

- ↳ Reasonable and consistent
- ↳ Some minor concerns

## Actuarial Methods

- ↳ Reasonable and consistent
- ↳ Some minor concerns with disclosures

## Actuarial Valuation Replication

- ↳ Close match (1% on total liability)
- ↳ Reasonable, consistent and accurate

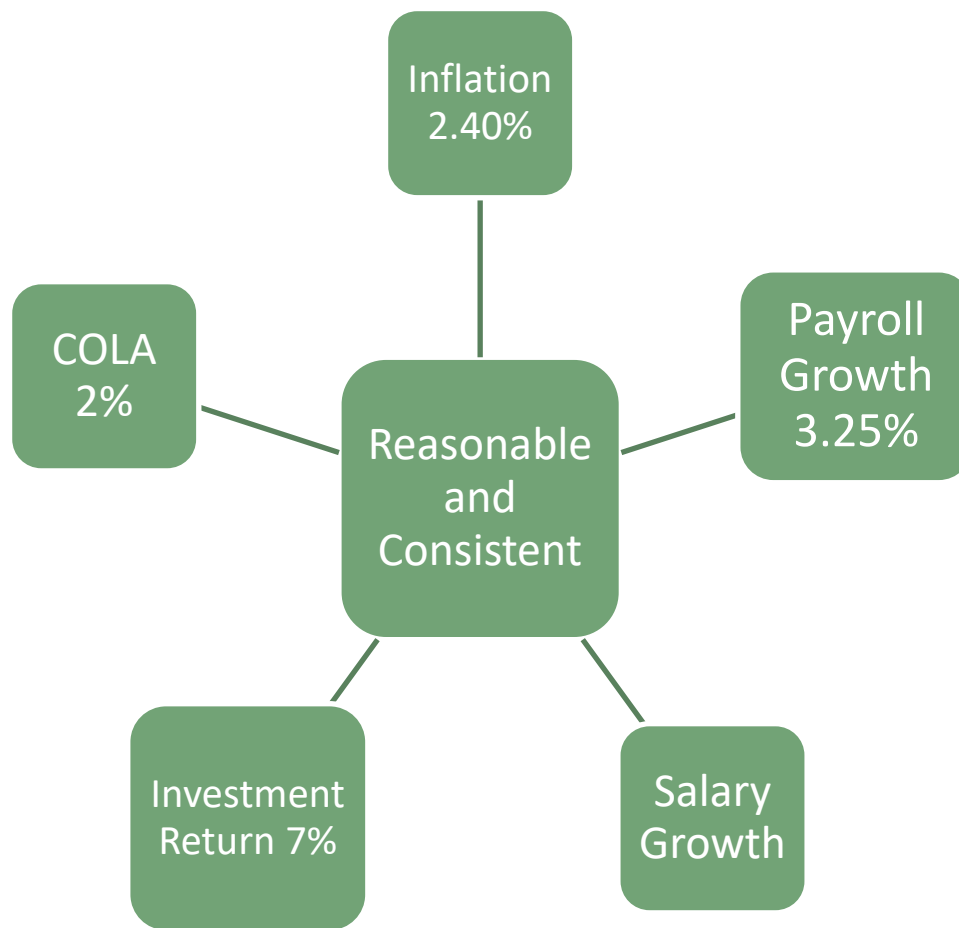
## Actuarial Process

- ↳ Unable to precisely verify certain detailed calculations
- ↳ But overall close replication match suggests confidence in numbers

# Demographic Assumptions



# Economic Assumptions



# Economic Assumptions

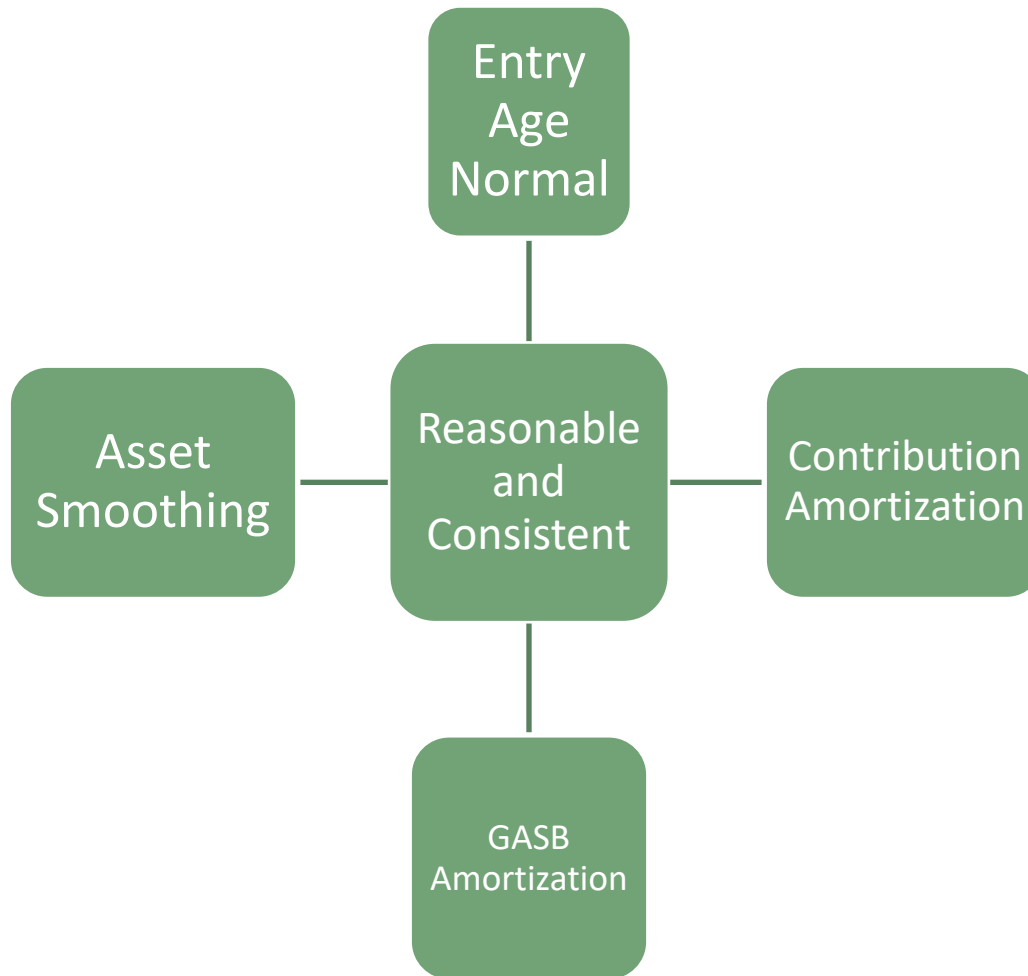
- Investment Return Rate of 7%
  - Consistent with Ohio systems (range is 6.90%-7.50%)
  - Slightly higher than current NASRA average of 6.91%
- Inflation Rate of 2.40%
  - Consistent with peers (median is 2.47%)
- Payroll Growth of 3.25%
  - Real wage inflation of 0.85% plus 2.40% inflation
- Salary Growth Rate
  - Reasonable, experience study analyzed inflation-adjusted salary growth appropriately
- Cost Of Living Allowance – 2% assumed – reasonable

# Healthcare Assumptions





# Actuarial Methods



# Amortization Methods

- For determination of satisfying Ohio 30-year Statute
  - Based on increasing payroll (3.25% of total payroll)
    - 3.25% payroll growth reasonable in aggregate for a stable population
  - Amortization period is 20 years as of June 30, 2024
    - Down from 28 years as of June 30, 2016
  - Indicates satisfactory progress in amortizing unfunded liability

# Amortization Methods

- For determination of contribution requirements under ASOP 4
  - “Single closed period” approach is a “non-recommended” approach for a Level Cost Allocation Method in the CCA White Paper
    - Due to volatility as period declines
    - CavMac may wish to introduce “layered approach” in future
  - However closed period approach is preferred over open 30-year period approach which is permitted under statute

# Actuarial Valuation Replication

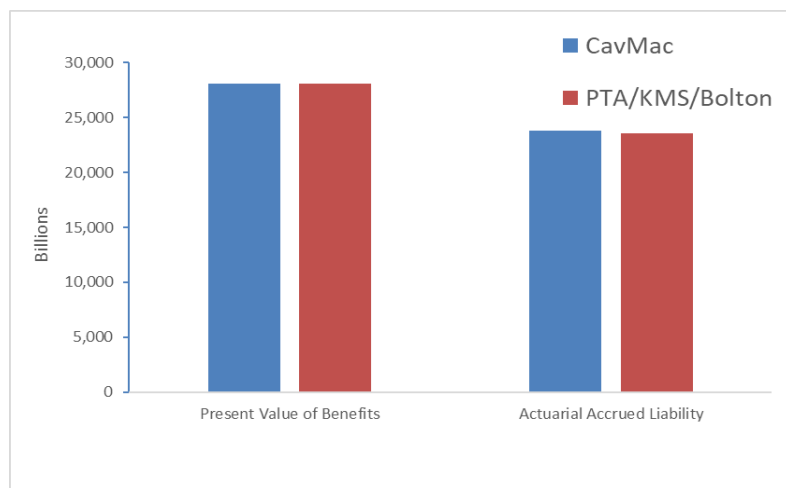
- Data used by CavMac consistent with data provided by SERS
- Reasonable match
- Thorough, complete work by CavMac

# Actuarial Valuation Replication

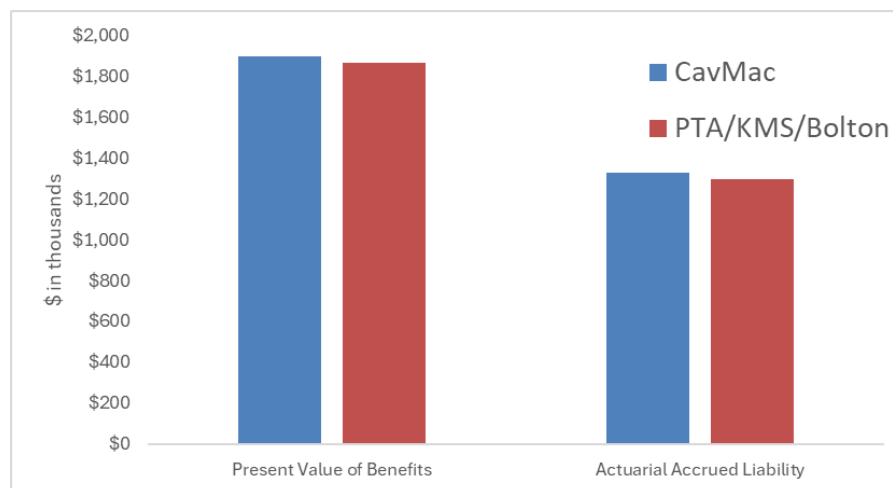
- Actuarial liabilities match within 1% in total
- Total present values match was within 0.1%
- Normal costs values did not match as closely
  - Nearly 5% deviation
- However, the strong match in Actuarial Accrued Liability and Present Value of Benefits is more important indicator that costs are also being reasonably calculated.

# Actuarial Replication Match

## Comparison of Present Value of Benefits and Actuarial Accrued Liability - Pension Benefits



## Comparison of Present Value of Benefits and Actuarial Accrued Liability - Health Care Benefits



### Summary of Deviation of Results

	Pension Benefits Valuation Results	Retiree Health Valuation Results
Present Value of Benefits	0.22%	-1.68%
Accrued Liability	-0.95%	-2.23%
Normal Cost	5.38%	-4.02%

# Health Care Review

- Assumed 2024 monthly rates are reasonable
- Age-adjusted rates reflect reasonable morbidity by age, are consistent with monthly rates and are reasonable

# Audit Conclusions

- Reasonable match in valuation replication
- Other Assumptions, Methods and Factors
  - Reasonable
  - Consistent
  - Accurate
- Health care rates are reasonable
- CavMac reports are complete
- Recommendations
  - Provide next auditor with more transparent calculations
  - Correct minor issues mentioned in audit report
  - Provide more robust development of certain assumptions and methods mentioned in audit report



# Findings of Actuarial Review - Recap

## Actuarial Assumptions

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## Actuarial Methods

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