



City of Austin Texas

Audit of Actuarial Valuations, Studies & Reports

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Agenda

- Purpose
- Process
- Results
- Summary

Purpose

- Review actuarial work for the Austin retirement systems
 - City of Austin Employee's Retirement System (COAERS)
 - Austin Fire Fighters Relief & Retirement Fund (AFRS)
 - Austin Police Retirement System (APRS)
- In compliance with Texas Government Code review actuarial reports covering 2013 through 2017 for compliance with
 - Texas State Pension Review Board Guidelines for Actuarial Soundness
 - Actuarial Standards of Practice (ASOPs)
 - Other statutory requirements
- Examine appropriateness of actuarial assumptions and methods
- Provide commentary on completeness of the actuarial reports
- Provide recommendations or enhancements for best practices

Process

- Perform a Level 3 Actuarial Audit as defined by the GFOA
- Discount Rate
 - Comparison to other plans: NASRA
 - Develop from Capital Market Assumptions: Horizon
- Compare demographic assumptions to actuarial experience and similarly situated plans
- Compare actuarial methods to ASOPs and best practices
- Evaluate contribution level relative to a reasonable funding level

Results

Statutory Requirements

- Texas Government Code
 - **All plans in compliance with frequency of reports and funding plans**
- Pension Review Board Guidelines
 - **All valuations appear to reflect all of the plan's obligations and assets.**
 - **Normal cost is calculated using Entry Age Normal Cost method which allocates annual liability cost as a level percent of pay.**
 - **Unfunded actuarial accrued liability (UAAL) amortization period is measured by amortizing UAAL as a level percentage of pay.**
 - **Current funding policy is projected to amortize UAAL over 30 years for COAERS, over 15 years for AFRS, and over 35 years for APRS,**
 - State Board suggests a 10- to 25-year period, but not more than 30 years with an eight year phase-in
 - **An experience study should be completed every 5 years**
 - COAERS and AFRS had studies done through 2015
 - APRS has a study currently underway

Results

Report Contents

- Comply with new Actuarial Standards of Practice
 - **Include ASOP 51 going forward – disclosure of risks**
 - **Suggestions:**
 - Benefit payment to contributions ratio
 - Assets and/or liability to payroll ratio
 - Unfunded liability to taxable revenues
- Recommended projections and sensitivities
 - **10-year with sensitivity to asset returns**
 - **Net amortization at alternative payroll growth assumptions**
- AFRS: Data reconciliation and inactive data statistics

Results

Economic assumptions – Inflation rate

- Benchmarks
 - **20-, 30-, and 40- year average of CPI-U were 2.15%, 2.57%, and 3.54% respectively**
 - **10-, 20- and 30-year Treasury Inflation-Indexed Bond spreads were 1.97%, 1.98%, and 2.01% respectively**
- COAERS – 2.75% in 2017 report
- AFRS – 3.50% in 2017 report
 - **AFRS assumption is high when compared to assumed 3% general wage increase**
- APRS – 3.00% in 2016 report
- May see lower inflation assumption in future based on current trends

Results

Economic assumptions – Investment return

- Benchmarks
 - **Capital Market Assumptions, Horizon survey**
 - **NASRA Survey – 2018 median 7.5%, 2019 median 7.25%**
 - **Investment Policy**
- COAERS – 7.50% in 2017 report
- AFRS – 7.70% in 2017 report
- APRS – 7.70% in 2017 report
- Assumptions are within reasonable range
- Should consider a lower rate, especially if inflation assumption is decreased

Results

Economic assumptions – Salary increases

- Benchmarks
 - **General wage inflation**
 - **Merit**
 - **Productivity**
 - **Social Security Wage Index**
 - **Contract pay scale**
 - **Experience study**
- COAERS assumes inflation plus 1.25% productivity plus promotional increase from 0% to 2.25% based on service
- AFRS general wage increase of 3.00% plus a merit and longevity
- APRS general wage increase of 3.25% plus a merit increase based on service
- Comment on assumptions
 - **Noted inconsistency with inflation assumption from AFRS**
 - **Should evaluate year 0 assumption for APRS**

Results

Economic assumptions – Administrative expenses

- Benchmarks
 - **Plan experience**
 - **Included in normal cost**
- COAERS – 0.5% of payroll, consistent with recent 3, 5, and 7 year average of expenses
- AFRS – expected return on assets net of expenses
- APRS – expected return on assets net of expenses
- Expense assumptions are reasonable
- APRS has 0.017% of payroll expense assumption for Proportionate Retirement Program - not tested, but likely has immaterial effect on valuation results

Results

Economic assumptions – Payroll and Cost of Living

- Total Payroll projection used to test contribution rates and amortization of unfunded liability
- COAERS – 4.0%
- AFRS – 3.5%
- APRS – 4.0%
- Assumptions on high side. Suggest sensitivity testing ensure amortization payments in contributions meet state law and follow best practices
- Cost-of-living increases – none assumed
 - **Permitted based on plan experience AFRS should consider using a COLA assumption (5 of last 6 years an increase was granted)**
 - **Assumption and support should be included in reports**

Results

Demographic assumptions – Decrements

Retirement, Disability, Termination, Mortality, DROP

- Benchmarks
 - **Plan experience, if credible**
 - **Standard tables**
- COAERS – experience study in 2015
 - **Developing Group B experience**
- AFRS – experience study in 2015
- APRS – no recent experience study, recommended
 - **APRS has a study currently underway**
- Assumptions are reasonable
- New public plans mortality tables should be considered
- Assumption and rationale should be in reports

Results

Actuarial Methods

- Funding method – entry age cost method as a level percent of pay
 - **Used by all three plans**
 - **Meets actuarial standards of practice**
- Contributions set by statute
 - **Cost method is used to test funding levels**
- Asset smoothing method – phase in investment gains and losses
 - **All three plans are in accordance with actuarial standards**
 - **Features of COAERS method may shorten period by offsets, will allow for results outside of corridor and apply expected return to smoothed value**
- Amortization of unfunded liability as a level percent of payroll
- Payroll growth assumption
 - **COAERS 4.0%; AFRS 3.5%; APRS 4.0%**
- Payroll growth assumption may overstate likelihood unfunded amount is paid off in 30 years
 - **Recommend sensitivity analysis of 4% payroll assumption**

Summary

- Results generally in compliance with ASOPs and Texas Code
- Recommended reviews
 - **All: Public plan mortality**
 - **COAERS**
 - Payroll growth
 - Discount rate
 - **AFRS**
 - COLA assumption
 - Inflation assumption
 - Relationship between wage and price inflation
 - Discount rate
 - **APRS**
 - Experience study
 - Payroll growth
 - Discount rate

Question & Answer

Thank you for your time.

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