Fire and Police Pension Association of Colorado

2026 Actuarial Experience Study
for the Period Ending December 31, 2025

P: 469.524.0000 | www.grsconsulting.com

May 26, 2026

Board of Directors
Fire and Police Pension Association of Colorado
7979 E Tufts Ave, Suite 900
Denver, Colorado 80237

Subject: Results of the 2026 Experience Study

Dear Members of the Board:

We are pleased to present our report of the results of the 2026 Actuarial Experience Investigation Study for the Fire and Police Pension Association of Colorado ("FPPA"). Our report includes a discussion of the recent experience of the System, it presents our recommendations for new actuarial assumptions and methods, and it provides information about the actuarial impact of these recommendations on the liabilities and other key actuarial measures of FPPA.

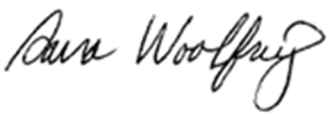
With the Board of Trustees' approval of the recommendations in this report, we believe the actuarial condition of the System will be more accurately measured and portrayed.

This experience investigation study was conducted in accordance with generally accepted actuarial principles and practices, and in full compliance with the Actuarial Standards of Practice as issued by the Actuarial Standards Board. All of the undersigned are members of and meet the Qualification Standards of the American Academy of Actuaries.

We wish to thank the FPPA staff for their assistance in this project.

Respectfully submitted,

Joseph P. Newton, FSA, EA, MAAA
Pension Market Leader & Actuary



Dana L. Woolfrey, FSA, EA, MAAA
Senior Consultant & Actuary

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SECTION A

EXECUTIVE SUMMARY

Executive Summary

Our recommended changes to the key current actuarial assumptions and methods used in the valuations are summarized below. The rationale for these recommendations, including recommendations for no changes to other assumptions and methods, are described in detail in Section C. A full disclosure of the proposed assumptions is in Section E.

Economic assumptions

1. Based on a recommended unchanged inflation rate of 2.50%, we recommend no change to the current nominal investment assumption for the Long-Term Pool (7.00%), Glide Path Pool (6.00%), or the Short Term Pool (4.50%).
2. We recommend increasing the productivity component of the salary increase assumption from 1.75% to 2.00%, resulting in a base salary increase assumption of 4.50%. We recommend increasing the step-rate increase portion of the salary scale for the first 5 years of a member's career in accordance with the observed experience.
3. We recommend maintaining the overall payroll growth assumption of 3.00%.

Mortality assumptions

4. We recommend updating the base assumptions for mortality to the recently published Pub-2016 tables for Public Safety. For Active Employees, we recommend reducing the flat duty death rate from 0.00015 to 0.00010.

Demographic assumptions

5. We recommend increased termination rates for Police.
6. We recommend slightly modifying Statewide Retirement Plan retirement rates to reflect increased early retirement utilization for low service members, extending maximum retirement age from 62 to 65, and moving to a flat 40% rate for Rule of retirements prior to age 55. For Colorado Springs New Hire Plan – Fire Component, reduce the early retirement rate from 7.5% to 5.0%.
7. We recommend reducing the load on occupational disability benefits in place for five years or less from 4% to 3%. This impacts only the Statewide Death and Disability Plan and reflects the potential to convert Occupational Disability benefits to Total Disability benefits.
8. We recommend estimating and valuing vested retirement annuity benefits for members of the inactive population using salary information where available in the census data, and a minimum salary assumption where salary is unavailable.

SECTION B

INTRODUCTION

Introduction

Summary of Process

A periodic review and selection of the actuarial assumptions is one of many important components of understanding and managing the financial aspects of FPPA. Use of outdated or inappropriate assumptions can result in understated costs which will lead to higher future contribution requirements or perhaps an inability to pay benefits when due; or, on the other hand, produce overstated costs which will place an unnecessarily large burden on the current generation of members, employers, and taxpayers.

A single set of assumptions is typically not expected to be suitable forever. As the actual experience unfolds or the future expectations change, the assumptions should be reviewed and adjusted accordingly.

It is important to recognize that the impact from various outcomes and the ability to adjust from experience deviating from the assumption are not symmetric. Due to compounding economic forces, legal limitations, and moral obligations, outcomes from underestimating future liabilities are much more difficult to manage than outcomes of overestimates, and that asymmetric risk should be considered when the assumption set, investment policy and funding policy are created. As such, the assumption set used in the valuation process needs to represent the best estimate of the future experience of the System and be at least as likely, if not more than likely, to overestimate the future liabilities versus underestimate them.

Using this strategic mindset, each assumption was analyzed compared to the actual experience of FPPA and general experience of other large public employee retirement systems. Changes in certain assumptions and methods are suggested upon this comparison to remove any bias that may exist and to perhaps add in a slight margin for future adverse experience where appropriate. Next, the assumption set as a whole was analyzed for consistency and to ensure that the projection of liabilities was reasonable and consistent with historical trends.

The following report provides our recommended changes to the current actuarial assumptions.

In determining liabilities, contribution rates and funding periods for retirement plans, actuaries must make assumptions about the future. Among the assumptions that must be made are:

- Retirement rates
- Mortality rates
- Turnover rates
- Disability rates
- Investment return rate
- Salary increase rates
- Inflation rate

For some of these assumptions, such as the turnover or retirement rates, past experience provides important evidence about the future. For other assumptions, such as the investment return rate, the link between past and future results is much weaker. In either case, though, actuaries should review their assumptions periodically and determine whether these assumptions are consistent with actual past experience and with future expectations.

In conducting experience studies, actuaries generally use data over a period of several years. This is necessary in order to gather enough data so that the results are statistically significant. In addition, if the study period is too short, the impact of the current economic conditions may lead to misleading results. It is known, for example, that the strength of the national and local economy can impact salary increase rates and withdrawal rates. Using results gathered during a short-term boom or bust will not be representative of the long-term economic trends. This study reflects the addition of new data based on experience during the four-year period of January 1, 2022 to December 31, 2025 to the data utilized in the last experience study, which was prepared in 2022.

Also, the adoption of new legislation that impacts benefits or compensation may cause a short-term distortion in the experience. For example, if an early retirement window were opened during the study period, we would usually see a short-term spike in the number of retirements followed by a dearth of retirements for the following two-to-four years. Using a longer period to observe the plan's experience reduces the influence of such short-term effects. On the other hand, using a much longer period may not immediately reflect real changes that may be occurring, such as mortality improvement or a change in the ages at which members retire. In our view, using a four-to six-year period appropriately balances these effects.

In an experience study, we first determine the number of deaths, retirements, etc. that occurred during the period. Then we determine the number expected to occur, based on the current actuarial assumptions. The number "expected" is determined from using the probability of the occurrence at the given age, times the "exposures" at that same age. For example, let's look at a rate of retirement of 50% at age 55. The number of exposures can only be those members who are age 55 and eligible for retirement at that time. Thus, they are considered "exposed" to that assumption. Finally, we calculate the A/E ratio, where "A" is the actual number (of retirements, for example) and "E" is the expected number. If the current assumptions precisely predicted the actual experience the A/E ratio would be 100%. When it varies much from this figure, it is a sign that new assumptions may be needed. Of course, we not only look at the assumptions as a whole, but we also review how well they fit the actual results by sex, by age, and by service.

Please note it is often appropriate to graduate or smooth the results since the actual experience can be quite uneven from age to age or from service year to service year.

Please bear in mind that, while the recommended assumption set represents our best estimate, there are other reasonable assumptions sets that could be supported. Some reasonable assumption sets would show higher or lower liabilities or costs.

Plans Studied

This study pertains to the following plans:

- Statewide Retirement Plan (SRP)
- Statewide Death and Disability Plan (SWDD) which includes members covered under the Defined Benefit (DB) Plans as well as the Money Purchase (MP) Plans
- Colorado Springs New Hire Plans
- Local defined benefit pension plans for firefighter and police employees in the State of Colorado hired before April 8, 1978 whose employers have chosen to affiliate with FPPA (Old Hire Plans)
- Volunteer firefighter defined benefit pension plans in the State of Colorado who have chosen to affiliate with FPPA (Volunteer Plans)

The study was largely based on census data for the SRP plan. The study of disability incidence and disabled mortality was completed using census data for the SWDD plan. Census data for the Volunteer Firefighter plans was used to review the termination and retirement assumption for those plans. Plan-specific data for Colorado Springs New Hire Plans was used to adjust the observations from the SRP.

Organization of Report

Section C contains our findings and recommendations for each actuarial assumption. The impact of adopting our recommendations on liabilities and contribution rates is shown in Section D. Section E presents a summary of all the actuarial assumptions and methods, including the recommended changes.

SECTION C

ANALYSIS OF EXPERIENCE AND RECOMMENDATIONS

Analysis of Experience and Recommendations

We will begin by discussing the economic assumptions: inflation, the investment return rate, the salary increase assumption, the cost-of-living increases (COLAs), and the payroll growth rate. Next, we will discuss the demographic assumptions: mortality, disability, termination and retirement. Finally, we will discuss the actuarial methods used to calculate the liability, funded status, and contribution rate.

Actuarial Standards of Practice for Setting Economic Assumptions

Actuarial Standard of Practice (ASOP) No. 27, Selection of Assumptions for Measuring Pension Obligations, provides guidance to actuaries on giving advice on selecting assumptions for measuring obligations for defined benefit pension plans. This supplements ASOP 4, Measuring Pension Obligations and Determining Plan Costs or Contributions.

As no one knows what the future holds, it is necessary for an actuary to estimate possible future outcomes. Recognizing that there is not one right answer, the current standard calls for an actuary to develop a reasonable economic assumption. A reasonable assumption is one that:

1. is appropriate for the purpose of the measurement,
2. reflects current and historical data that is relevant to selecting the assumption for the measurement date,
3. is an estimate of future experience; an observation of market data; or a combination thereof, and
4. has no significant bias except when provisions for adverse deviation or plan provisions that are difficult to measure are included.

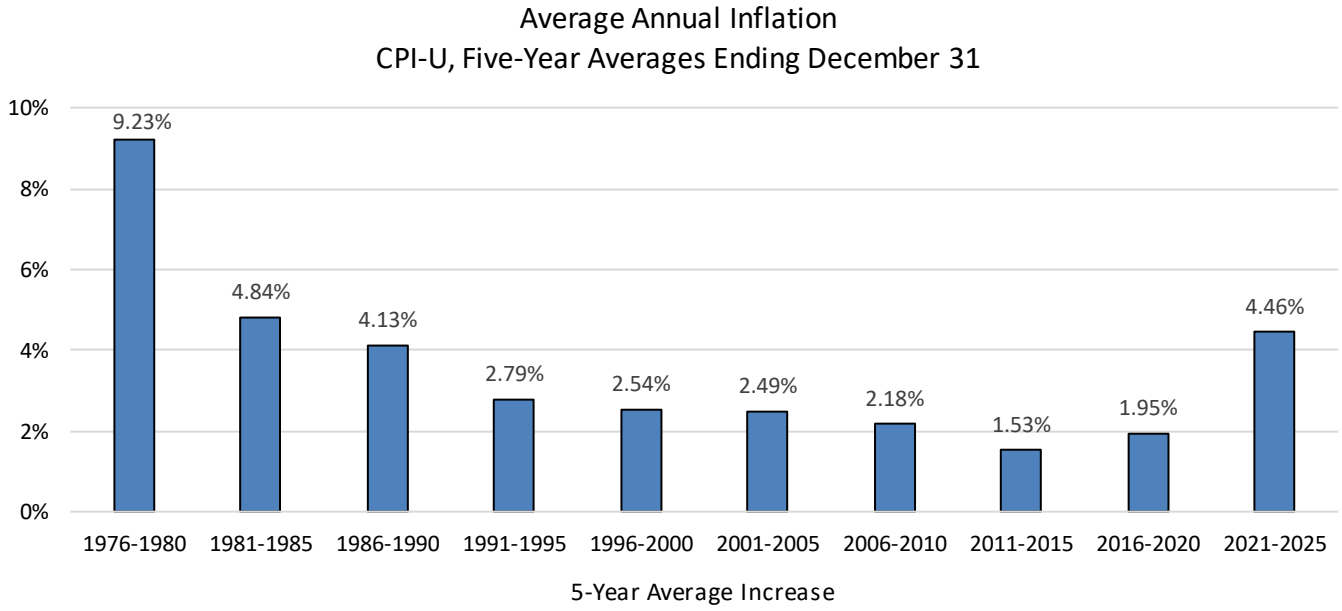
However, the standard explicitly advises an actuary not to give undue weight to recent experience. In regards to the relevance of current and historical data, historical data is generally expected to be highly relevant in setting demographic assumptions, but much less so in setting economic assumptions. In setting economic assumptions, there is much higher reliance on forward-looking economic forecasts. Generally, the economic assumptions are much more subjective in nature than the demographic assumptions.

Each assumption should individually satisfy this standard. Furthermore, with respect to any particular valuation, each assumption should be consistent with the other assumptions over the measurement period.

Inflation Rate

"Inflation," refers to price inflation, as measured by annual increases in the Consumer Price Index (CPI). This inflation assumption underlies all of the other economic assumptions we employ. It impacts investment return, salary increases, and cost-of-living increases (COLAs) in retiree benefits.

The chart on the following page shows the average annual inflation in each of the ten consecutive five-year periods over the last fifty years.



Source: Bureau of Labor Statistics, CPI-U, all items, not seasonally adjusted

The table below shows the average inflation over various periods, ending December 2025:

Periods Ending Dec. 2025	Average Annual Increase in CPI-U
Last five (5) years	4.46%
Last ten (10) years	3.20%
Last fifteen (15) years	2.64%
Last twenty (20) years	2.52%
Last twenty-five (25) years	2.52%
Last thirty (30) years	2.52%
Since 1913 (first available year)	3.15%

Source: Bureau of Labor Statistics, CPI-U, all items, not seasonally adjusted

As you can see, while very recent inflation has been higher than the 2.50% assumption, longer term averages have been very close to the current assumption.

Many investment consulting firms, in setting their capital market assumptions, currently assume that inflation will be less than 2.50%. We examined the 2026 capital market assumption sets for 12 investment consulting firms. The average assumption for inflation was 2.42%, with a range of 2.28% to 2.70%.

The following is a summary of other forward-looking inflation forecasts from various sources:

Forward-Looking Price Inflation Forecasts[a]	
Congressional Budget Office[b]	
5-Year Annual Average	2.48%
10-Year Annual Average	2.39%
Federal Reserve Bank of Philadelphia[c]	
5-Year Annual Average	2.40%
10-Year Annual Average	2.30%
Federal Reserve Bank of Cleveland[d]	
10-Year Expectation	2.19%
20-Year Expectation	2.29%
30-Year Expectation	2.37%
Federal Reserve Bank of St. Louis[e]	
10-Year Breakeven Inflation	2.34%
20-Year Breakeven Inflation	2.45%
30-Year Breakeven Inflation	2.22%
U.S. Department of the Treasury[f]	
10-Year Breakeven Inflation	2.37%
20-Year Breakeven Inflation	2.44%
30-Year Breakeven Inflation	2.25%
50-Year Breakeven Inflation	2.29%
100-Year Breakeven Inflation	2.31%
Social Security Trustees[g]	
Ultimate Intermediate Assumption	2.40%

[a] **End of the First Quarter, 2026**. Version 2026-04-14 by Gabriel, Roeder, Smith & Company

[b] *The Budget and Economic Outlook: 2026 to 2036* , Release Date: February 2026, Consumer Price Index (CPI-U), Percentage Change from Year to Year, 5-Year Annual Average (2026 - 2030), 10-Year Annual Average (2026 - 2035).

[c] *First Quarter 2026 Survey of Professional Forecasters* , Release Date: March 6, 2026, Headline CPI, Annualized Percentage Points, 5-Year Annual Average (2026 - 2030), 10-Year Annual Average (2026 - 2035).

[d] Inflation Expectations, Model output date: March 1, 2026.

[e] The breakeven inflation rate represents a measure of expected inflation derived from X-Year Treasury Constant Maturity Securities and X-Year Treasury Inflation-Indexed Constant Maturity Securities. Observation date: March, 2026.

[f] The Treasury Breakeven Inflation (TBI) Curve, Monthly Average Rates, March, 2026.

[g] *The 2025 Annual Report of The Board of Trustees of The Federal Old-Age And Survivors Insurance and Federal Disability Insurance Trust Funds* , June 18, 2025, p. 11, Key Assumptions and Summary Measures for Long-Range (75-year) Projections, Intermediate, Consumer Price Index (CPI-W).

Recommendation

As shown, most of the forecasts are below 2.50%. However, several of the longer-term data points are still close to 2.50% and all historical lookback periods are above 2.50%. Given the desire for stability in this assumption, we feel there is sufficient support for leaving this assumption unchanged at 2.50%.

Investment and Administrative Expenses

Since the trust fund pays expenses in addition to member benefits and refunds, we must make some assumption about these. Almost all actuaries treat investment expenses as an offset to the investment return assumption. That is, the investment return assumption represents expected return after payment of investment expenses.

For investment expenses, investment consulting firms periodically issue reports that describe their capital market assumptions. The estimates for core investments (i.e., fixed income, equities, and real estate) are generally based on anticipated returns produced by passive index funds that are net of investment related fees. The investment return expectations for the alternative asset class such as private equity and hedge funds are also net of investment expenses. Therefore, we did not make any adjustments to account for investment related expenses. Some of the Retirement Systems may also employ active management investment strategies that result in higher investment expenses compared to strategies that invest in passive index funds. We have assumed that active management strategies would result in the same returns, net of investment expenses, as passive management strategies. To the extent the active management produces alpha it would be reflected in the annual valuation process as it occurs.

For FPPA, the practice for administrative expenses has been to explicitly add a load onto the normal cost. This is also our preferred approach, and we recommend continuing this practice. Using an explicit load onto the normal cost maximizes transparency, aligns better with the standards of the Governmental Accounting Standards Board, and maintains a parallel between the investment returns used by the investment consultant and the actuary.

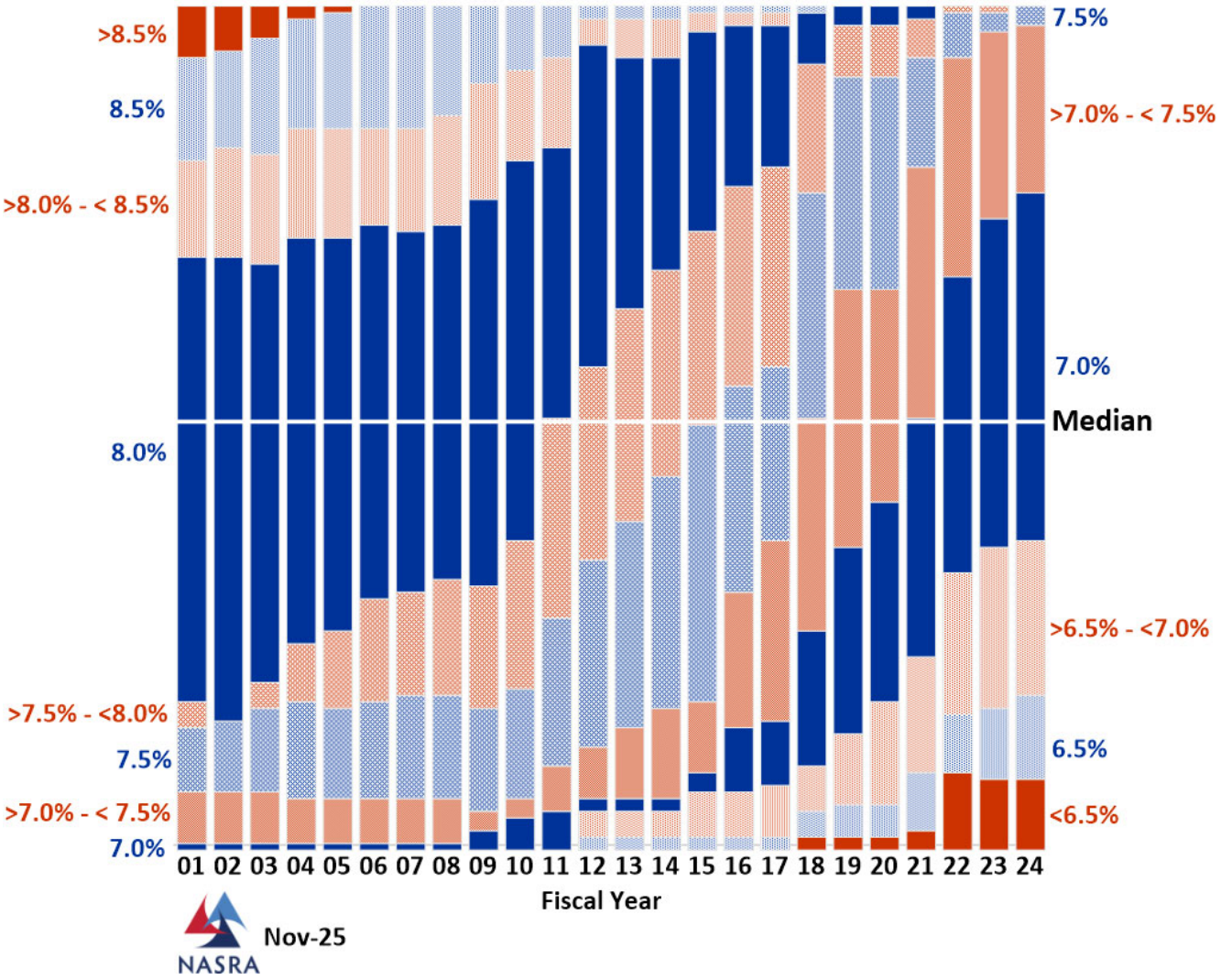
The explicit load is based on actual administrative expenses paid in the prior year. In some cases, this dollar amount is converted to a percentage of payroll based on valuation payroll. For the Volunteer and Old Hire Plans, this amount is based on an average of the actual administrative expenses in the prior two years due to the biennial nature of these plans.

Investment Return Rate

Currently, FPPA assumes an annual investment return rate of 7.00% for the long-term pool asset allocation. This is the rate used in discounting future benefit payments in calculating the actuarial present value of benefits as of the valuation date. Similar to the inflation assumption, past performance is not a reliable indicator of future performance, even when averaged over a long time period. Also, the actual asset allocation of the trust fund will significantly impact the overall performance, so returns achieved under a different allocation are not meaningful.

Assumption Comparison to Peers

We do not recommend the selection of an investment return assumption based on prevalent information. However, it is still informative to identify where the investment return assumption for FPPA is compared to its peers. The chart below shows the distribution of the investment return assumptions in the NASRA Public Fund Data issued in December 2025.



The information shown indicates that based on the most recent information available, 7.0% is both the median and mode assumption of the 131 public pension plans surveyed, with the average 6.9%. However, there are more peer systems at 6.5% than 7.5%, and there are systems below 6.5% while none are above 7.5%. The chart shows the distribution of assumed returns has steadily trended toward lower assumed returns over the 20+ year period.

Asset Allocation

The actual asset allocation of the trust fund will significantly impact the overall performance, so returns achieved under a different allocation are not meaningful. More importantly, the real rates of return for

many asset classes, especially equities, vary so dramatically from year to year that even a ten-year period is not long enough to provide reasonable guidance. We believe a better approach to selecting an investment return assumption is to determine the median expected portfolio return given the fund's targeted allocation and an overall set of capital market assumptions. Per information received from FPPA, the Long Term Pool's current target asset allocation is as follows:

Asset Class	Target Allocation
Cash	4 %
Fixed Income	7 %
Fixed Income Credit	5 %
Diversifiers	9 %
Long/Short Equity	6 %
Global Public Equity	38 %
Private Equity	25 %
Real Estate	3 %
Real Assets	3 %
Total	100 %

We received compound return expectations for all three of the FPPA investment pools form FPPA's investment advisor, Cambridge. The current investment return assumptions, expectations, and probabilities of achieving the assumed returns were as follows:

	Long Term Pool	**Glide Path Pool**	**Short Term Pool**
Current Assumption	7.00%	6.00%	4.50%
10-year expectations	6.84%	6.33%	5.28%
Probability of Achieving Current Assumption	48.2%	55.6%	71.2%
Longer-term expectations (with reversion to historical mean)	6.19%	5.84%	4.86%
Probability of Achieving Current Assumption	35.7%	45.8%	65.7%
Longer-term expectations (steady state: without reversion to mean)	7.52%	6.68%	5.11%
Probability of Achieving Current Assumption	59.3%	54.8%	75.4%

The intermediate term results are based on a 2.3% underlying inflation assumption while the long-term results are based on 2.4%. Adjusting for the 2.5% inflation assumption in the actuarial model increases the 6.84% above to 7.04%.

For the longer-term expectations, Cambridge provided two sets of results. One set is based on current asset valuations, which would be responsive to recent market experience and a revision to longer term means over the longer term, and an alternative steady state expectation which is more general. This latter scenario is not necessarily a projection from today's reality but from a random reality starting from any point in time, so not incorporating any reversion to mean or recent outlier positive or negative experience. As shown, they produce two very different scenarios because current equity expectations after a very strong three-year period and higher than historical price to earnings ratios in many asset classes could suggest more modest performance going forward.

The actuarial standards of practice require the assumption to reflect current data that is relevant to selecting the assumption for the measurement date and an observation of current market data. This would lean towards Cambridge standard mean-reverting approach. However, this is a long-term assumption and one objective is to not overreact to any short-term data points, including changes in assumptions. Giving both methodologies some weight, the average between the 6.19% and 7.52% is 6.86%. This is based on a 2.4% inflation assumption, so adjusting for the 2.5% valuation assumption yields 6.96%.

GRS has used their own model to verify expectations for the long-term pool. Because GRS is a benefits consulting firm and does not develop or maintain our own capital market assumptions, to verify the results above we utilized a survey of the forward-looking return expectations developed by 12 national consulting firms. These investment consulting firms periodically issue reports that describe their capital market assumptions. That is, their estimates of expected returns, volatility, and correlations. These assumptions are developed based upon historical analysis as well as forward-looking adjustments to better reflect near-term expectations based on current market conditions.

Given the long-term pool's current asset allocation and the investment consultants' capital market assumptions, the development of the average expected compound return, net of investment expenses, is provided in the following table.

Expected Annual Geometric Returns and Return Probabilities
(Based on Current Capital Market Assumptions)

GRS 2026 CMAM				
Capital Market Assumption Set (CMA)	Distribution of 10-Year Average Geometric Net Nominal Return			Probability of exceeding
	40th	50th	60th	7.00%
(1)	(2)	(3)	(4)	(5)
1	4.91%	6.02%	7.15%	41.29%
2	5.01%	6.11%	7.23%	41.99%
3	5.50%	6.63%	7.77%	46.72%
4	5.77%	6.78%	7.80%	47.81%
5	5.80%	6.88%	7.96%	48.86%
6	6.11%	6.98%	7.85%	49.73%
7	6.13%	7.24%	8.35%	52.17%
8	6.49%	7.43%	8.39%	54.62%
9	6.56%	7.51%	8.47%	55.43%
10	6.78%	7.67%	8.56%	57.55%
11	6.72%	7.69%	8.66%	57.13%
12	6.75%	7.93%	9.13%	57.90%
Average	**6.04%**	**7.07%**	**8.11%**	**50.93%**

As shown, based on this survey, the average expected median return for the next 10 years is 7.07%. More importantly, the probability of achieving the currently assumed 7.00% is just above 50% at 50.9%. Notice the range of outcomes across the different surveyed consultants, ranging from 6.02% to 7.93%, with six of the surveyed outcomes in excess of the 7.00% and six below. This shows that even highly experienced and thoughtful experts can have varying opinions.

The reader should also know that these forward-looking capital market expectations vary widely from year to year as market conditions change. For example, just in the last five years, this same process from the same twelve consultants have produced 10-year median expectations as high as 7.5% and as low as 6.1%. While this kind of volatility is appropriate for use in determining investment strategies that must contend with real-time investment decisions, the time horizon of the benefit payments from the SRP and corresponding funding strategy will continue much longer than 10 years. A better approach for the investment return assumption in the valuation is to use a middle-ground, stable assumption across generations of stakeholders and varying starting points. The average result of the last five surveys has been 7.04%, approximately equal to the current assumption.

Some of the sources of capital market assumptions do also provide longer term expectations, including FPPA's own investment consultant. These results are generally slightly higher than the 10-year results, providing higher probabilities (54% on average) of achieving the 7.00% assumption over the long term. However, this higher probability is potentially overstated as it presumes that the current portfolio would remain the target over the long term, even when the negative cash flow of the SRP switches from a current positive to negative 3% to 4% of assets. It is likely that as the plan matures, the liquidity

constraints will change and make it more difficult to utilize as much of the illiquid asset classes that are currently the source of expected over-performance.

Thus, to summarize the analysis for the investment return assumption for the long-term pool:

1. The current assumption is 7.00%, based on a 2.5% inflation assumption.

2. The median peer group uses 7.00%, with an average of 6.9%.

3. Cambridge is projecting 6.84% over the next 10 years, which becomes 7.04% when adjusted for the 2.5% valuation inflation assumption.

4. Cambridge is projecting between 6.19% and 7.52% over the long term, which averages to 6.86%. 6.96% when adjusted for the 2.5% inflation.

5. GRS' 2025 survey has a median expectation of 7.07% over the next 10 years, with a 50.5% probability of achieving 7%, and a 54% probability over a longer time horizon.

6. The average of the last 5 GRS surveys has been 7.04%.

Thus, we find all of the data is supporting no change to the 7.00% investment return assumption used for valuing plans participating in the long-term pool. In our opinion, the process above meets all of the requirements needed to use that as a basis for our analysis. The results were appropriate for the purpose of the measurement, as the estimates were medium to longer term forecasts of market expectations. They took into account historical and current economic data that is relevant as of the measurement date, represent an estimate of future experience and an observation of market data, and had no significant bias (i.e., it is not significantly optimistic or pessimistic).

The Colorado Springs New Hire Plans were closed to new hires in 2006, and while currently invested in the long-term pool, do not have the same investment horizon nor liquidity needs of the two Statewide Plans invested alongside them. It is anticipated that these plans will need their own more liquid allocation in the next five to 10 years. Accordingly, we recommend that the investment return assumption be lowered to 6.75% for these plans in anticipation of this transition.

Other Asset Pools

The expected returns of the Glide Path Pool were assessed outside this study during the Spring of 2026. The most recent return expectations continue to support the 6.0% return assumption determined in this earlier assessment and no change is needed.

There is also a Short-Term Pool, which contains very mature closed plans that generally have very few older retirees left and changes to the investment return have minimal impact on the liabilities. We believe the current 4.50% return assumption for this group remains reasonable, and barring significant changes to macroeconomic conditions in the future, will likely remain reasonable for the remaining lifetime of the plans currently in this fund.

Salary Increase Rates

In order to project future benefits, the actuary must project future salary increases for individuals. Salaries may increase for a variety of reasons:

- Across-the-board increases for all employees;
- Across-the-board increases for a given group of employees;
- Increases to a minimum salary schedule;
- Additional pay for additional duties;
- Step or service-related increases;
- Increases for acquisition of advanced degrees or specialized training;
- Promotions; or
- Merit increases, if available.

Our salary increase assumption is meant to reflect all of these types of increases.

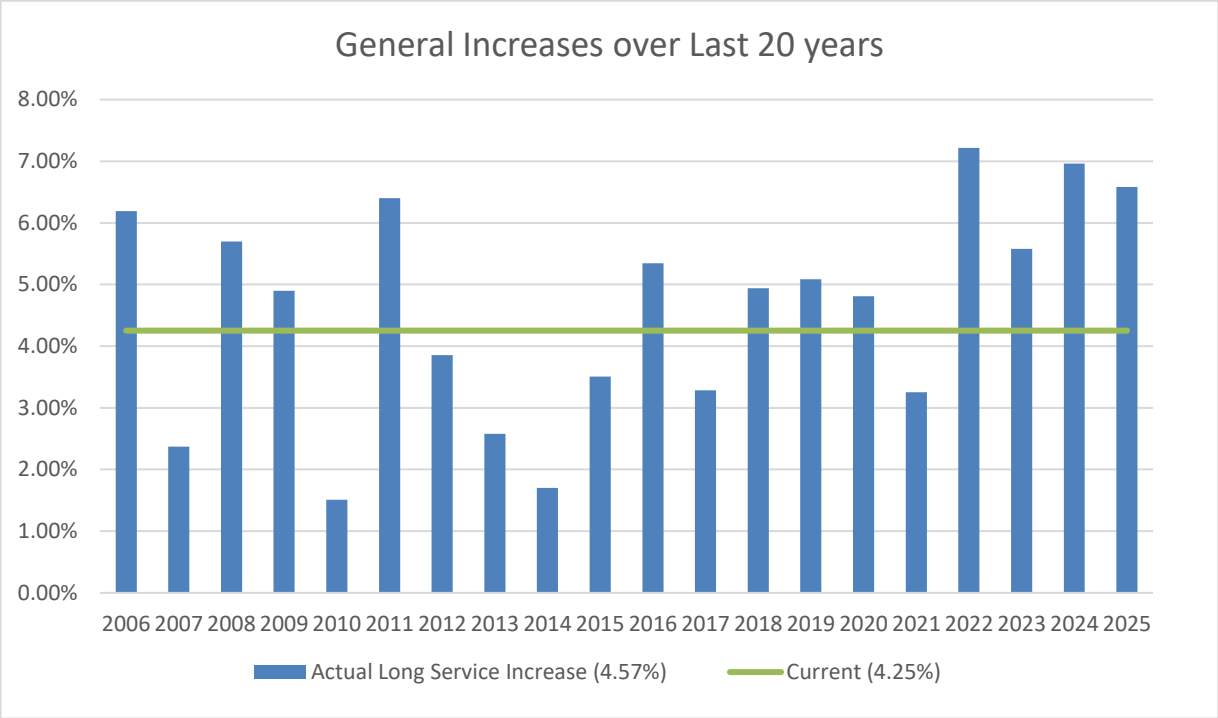
Salary increases for governmental employees can vary significantly from year to year. When the employer's tax revenues stall or increase slowly, salary increases often are small or nonexistent. During good times, salary increases can be larger. Our experience across many governmental plans also shows several occasions in which salary increases will be low for a period of several years followed by a significant increase in one year. Therefore, for this assumption in particular, we prefer to use data over a longer period in establishing our assumptions. We used a twenty-year period for this analysis.

Most actuaries recommend salary increase assumptions that include an element that depends on the member's age or service, especially for large, public retirement systems. It is typical to assume larger pay increases for younger or shorter-service employees. This is done in order to reflect pay increases that accompany step increases, changes in job responsibility, promotions, demonstrated merit, etc. The experience shows salaries have been more closely correlated to service (rather than age), as promotions and productivity increases tend to be greater in the first few years of a career, even if the new employee is older than the average new hire.

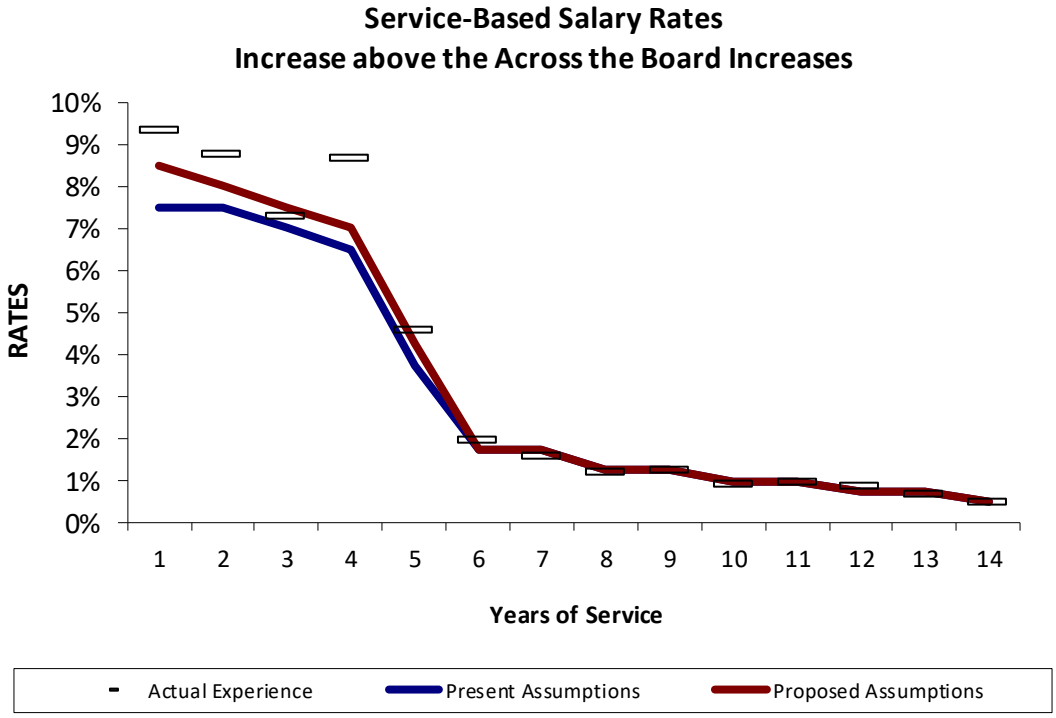
The current salary increase assumption is a service-related table that begins with 11.75% annual increases for new members decreasing to 4.25% annual increases for members with 15 or more years of service.

To separate the steps, or promotional component of the schedule, we segregated out members with more than 14 years of service. Most of these members should be past the promotional and step portions of their careers and, therefore, only receive the general increases granted and a small amount of individual merit.

Over a 20-year study period, the average actual increase of 4.57% was higher than the expected 4.25% increase. The actual inflation experience has been basically equal to the current 2.50% assumption at 2.52%. Thus, the actual general productivity increases during the twenty-year period were 2.05%, indicating that a higher productivity component assumption may be needed than the current 1.75%. The last ten years had an overall increase of 5.31%, 2.10% above actual inflation, showing an increasing trend. We recommend increasing the productivity increase assumption to 2.00%, which combined with the unchanged inflation assumption of 2.50%, produces nominal ultimate pay increase assumption of 4.50% (2.50% inflation plus 2.00% productivity and merit).



The following exhibit models the portion of the salary increases for short term members that exceeded the salary increases for long term members based on the current assumptions, the actual experience, and a set of new proposed assumptions. Based on the observed experience, the service-based increases assumed at short tenures were for increased the first five years of the member's career.



The increased salary increase assumptions, both the productivity increase and the slight changes to the service-based increases, will increase the normal cost rate for the salary-based plans.

General Payroll Growth

The salary increase rates discussed above are assumptions applied to individuals. They are used in projecting future benefits. For purposes of determining certain results as a level percentage of pay or indexing cohorts of future members into open group projections, we also use a separate general payroll growth assumption, which is currently 3.00% per year. This number is used in determining the contribution needed to amortize the unfunded actuarial accrued liability as a level percentage of pay (if applicable in the SRP plan) and in determining the new entrant pay in the funding projections. Since the SRP plan currently has no unfunded actuarial accrued liability, this assumption is only used for indexing the new entrant pay and has little impact on the valuation results.

Payroll often grows at a rate different from the average pay increases for individual members. Reasons include when older, longer-service members leave employment they are generally replaced with new members who are starting with a lower salary. Because of this, in most populations that are not growing in size, the growth in total payroll will be smaller than the average pay increase for members. On the other hand, payroll can grow due to an increase in the size of the group.

After adjusting for counts, payroll in the Statewide Retirement Plan has grown on average 4.03% over the last ten years, during a time when inflation was 3.20%. Thus, payroll has grown on average 0.82% above inflation. However, due to rapid growth in the active population the demographics are currently skewed younger with less service than the plan will be once it matures. When assessed in the 2022 experience study, this same metric was 0.32% above inflation. We believe the current payroll grow assumption of 3.00%, or 0.50% above inflation, continues to be appropriate.

Cost-of-living (COLAs) Increase Assumption

Cost-of-living increases are at the discretion of the FPPA Board for the two statewide plans (SRP,SWDD). As such, no cost-of-living adjustment is assumed for the baseline valuation results.

For the Colorado Springs New Hire Plans, increases are automatic and tied to inflation. As no change was recommended to the inflation assumption, no change is recommended to the cost-of-living adjustment assumption used for these two plans.

Some Old Hire Plans include a rank escalation increase in benefits (as active members receive an increase in pay, retirees receive a similar increase). We recommend no changes to the Old Hire rank escalation assumptions.

Demographic Assumptions

As previously mentioned, actuaries are guided by the Actuarial Standards of Practice (ASOP) adopted by the Actuarial Standards Board (ASB), in particular ASOP No. 27, *Selection of Assumptions for Measuring Pension Obligations*. We believe the recommended assumptions in this report were developed in compliance with this standard.

Post-Retirement Mortality Probabilities

The longer retirees live and receive their benefits, the larger the liability of the plan, thus increasing the contributions necessary to fund the plan. We currently use the Pub-2010 Amount-weighted Safety Healthy Annuitant Mortality Tables for males and females, with full generational mortality projection using the ultimate values of MP-2020 projection scales for all plans under FPPA. The current assumption set was recommended in the last experience study based on the standard mortality tables available at the time.

Credibility

The Old Hire Plans use a very different mortality definition than the Statewide Retirement Plan. Currently the Old Hire Plans have nearly as many disability retirees as normal service retirements indicating a low threshold for disability eligibility. This low threshold for disability retirement may indicate that the remaining non-disabled service retirees would have above average life expectancy, and may not be appropriate for study of the general FPPA retiree population. The Statewide Retirement Plan is still a relatively young plan with a small retiree population. For example, during the last nine years, within the Statewide Retirement Plan there were slightly more than 100 deaths, indicating very limited credibility. As such, neither population provides an adequate experience base from which to develop an FPPA population specific mortality assumption, and we recommend continuing to use a standard base table.

Base Table: Pub-2016 Public Retirement Plans Mortality Tables

In January 2019, the Society of Actuaries (SOA) issued the final version of Pub-2010 Public Retirement Plans Mortality Tables. This is the first set of mortality rates published based on U.S. public sector experience. In this study, the SOA examined mortality for Teachers, Public Safety, and General employment categories. The SOA also studied mortality rates by gender, income (in total and separated into above and below median), and status (active employees, retirees, disabled retirees, and contingent survivors). As a consequence, there are over 90 Pub-2010 tables to select from.

In May of 2025, the SOA published an update to the study called Pub-2016 Public Retirement Plans Mortality Tables. We recommend moving to this more recent study and using the Pub-2016 Amount-weighted Public Safety Healthy Annuitant Mortality Tables for healthy retirees and all beneficiaries. This study showed that public safety mortality among those covered by public retirement plans has improved more rapidly than anticipated since the last study.

Recommended Mortality Improvement Assumption

We use a fully generational approach to this assumption. Because of this strategy of building in continuous improvement, life expectancies for today's younger active members are expected to be materially longer than those of today's retirees, and this provides substantial stability and dependability on costs and liabilities.

There is an annual report published by the Retirement Plans Experience Committee of the Society of Actuaries to provide commentary on national trends in mortality experience and provide updated projection scales. The amount of volatility produced by changing annually to each "most recent" table is material. Although the near-term mortality improvement rates generated each year change quite a bit, there has been very little movement in the ultimate rates of improvement. In order to balance the two objectives of reflecting the most recent data available, while maintaining stability of results from year to year, GRS recommends the continued

use of the ultimate mortality improvement rates in the most recently available MP tables (first published in the MP-2020 table and in each year since then) for all years.

The following is a table with the life expectancy for a retired member who attains age 60 based on the proposed assumption set, by calendar year. As shown, the life expectancy is expected to increase into the future.

Proposed Mortality Assumption – Male Life Expectancy for an Age 60 Retiree in Years					
Group	**Year of Retirement**				
	2026	**2031**	**2036**	**2041**	**2046**
Healthy Retiree – Current	26.5	26.9	27.3	27.6	28.0
Healthy Retiree - Proposed	26.8	27.2	27.5	27.9	28.3

This mortality recommendation applies to all healthy retirees under the FPPA system. The net impact of the proposed mortality assumptions would be an increase in liabilities.

Totally Disabled Mortality Rates

We currently use the Pub-2010 table for healthy retirees set forward five years, with a minimum probability of death of 3.5% for males and 2.5% for females across all of the age groups to reflect the high impairment for this population as compared to the study population. These rates are consistent with other mortality tables for retirees with an "unable to engage in any substantial gainful activity" definition of disability. We recommend no change to this assumption other than updating to the Pub-2016 version of the base tables, similar to the healthy retirees.

This assumption applies to the SWDD plan and the Volunteer Plans, although it is immaterial in the case of the Volunteer Plans.

Occupationally Disabled Mortality Rates

The standard for Occupational Disability only requires that a participant can no longer be employed as a police officer or firefighter which is a much lower threshold than is associated with standard disabled mortality tables. Using a standard disabled mortality table would overestimate the level of impairment and underestimate the lifespan of these members. Rather than using a disabled mortality table, we recommend continuing to use the healthy retiree rates with a three-year set-forward (age 60 uses age 63 rate) to reflect partial impairment. This assumption applies to the SWDD plan and the Old Hire Plans for participants disabled prior to January 1, 1980.

Active Mortality Rates

For non-duty death, we are recommending the 60% of Pub(16) public safety table for active employees and fully generational mortality, projected using the same projection scale as discussed above. For duty death, we recommend reducing the current flat rate of 0.015% per year to 0.010% per year based on FPPA data as well as an analysis that was performed by GRS for the Colorado Treasurer's office. Making this change results in minimal impact to the valuations.

Disability Rates

FPPA uses separate disability rates for disability type (occupational vs. total disability) and for member retirement plan type (defined benefit plan vs. money purchase plan). During the four-year study period, the occupational disability experience for members covered by a defined benefit plan was about as expected and no change was recommended. There was less occupational disability experience than expected for those covered by a money purchase plan. Because there is limited credibility from the four-year experience, and because the actual to expected was much closer to 100% during the prior experience period (94%), we recommend a modest 10% reduction to the rates for this group.

Defined Benefit Plan Occupational Disability Experience				
Actual Occupational Disabilities	Expected Disabilities - Current	Expected Disabilities - Proposed	Actual/Expected - Current	Actual/Expected - Proposed
186	189.2	189.2	98%	98%
Money Purchase Plan Occupational Disability Experience				
Actual Occupational Disabilities	Expected Disabilities - Current	Expected Disabilities - Proposed	Actual/Expected - Current	Actual/Expected - Proposed
47	69.3	62.4	68%	75%
Total Occupational Disability Experience				
Actual Occupational Disabilities	Expected Disabilities - Current	Expected Disabilities - Proposed	Actual/Expected - Current	Actual/Expected - Proposed
233	258.5	251.6	90%	93%

The actual number of total disabilities was slightly less than expected for both the money purchase plan members for defined benefit plan members, even after accounting for conversions from occupational disability benefits. Due to the limited credibility of the data and the fact that experience was reasonably in line with expectations, we recommend leaving these rates unchanged.

Defined Benefit Plan Total Disability Experience				
Actual Total Disabilities	Expected Disabilities - Current	Expected Disabilities - Proposed	Actual/Expected - Current	Actual/Expected - Proposed
18	20.8	20.8	86%	86%
Money Purchase Plan Total Disability Experience				
Actual Total Disabilities	Expected Disabilities - Current	Expected Disabilities - Proposed	Actual/Expected - Current	Actual/Expected - Proposed
6	7.3	7.3	82%	82%
Overall Total Disability Experience				
Actual Total Disabilities	Expected Disabilities - Current	Expected Disabilities - Proposed	Actual/Expected - Current	Actual/Expected - Proposed
24	28.2	28.2	85%	85%

Termination Rates

Statewide Retirement Plan

Termination rates reflect members who leave for any reason other than death, disability, or service retirement. They apply whether the termination is voluntary or involuntary, and whether the member takes a refund or keeps his/her account balance on deposit. The current termination rates reflect the member's service. We typically weight the results by salary and use 10 years for termination analysis. To assess the impact of potentially abnormal turnover experience for 2020 and 2021, especially for Police, we analyzed the rates two ways. In one instance, we simply used the termination experience in 2016 through 2025. In the alternative analysis, we used termination experience in 2014 through 2019 and 2022 through 2025.

The termination experience for firefighters looked similar in both data sets and showed that the current assumption continues to be a good fit for this group. The actual to expected ratios were 106% (exclude 2020 and 2021) and 107% (include 2020 and 2021). We recommend no change to this assumption.

The termination experience for police showed higher termination rates than assumed for both data sets, although the data including 2020 and 2021 had a slightly different shape of the data, and in particular showed higher mid-career rates of termination. We suspect these rates may be anomalous and have fit the proposed termination rates to the 10-year data which excludes 2020 and 2021. The resulting actual to expected ratio was 108%.

Defined Benefit Plan Turnover Experience ($ in millions)					
Group	Actual Turnover	Expected Turnover Current Assumption	Expected Turnover Proposed Assumption	Actual/Expected Current Assumption	Actual/Expected Proposed Assumption
Excluding 2020 and 2021 Experience (includes 2014 through 2019 and 2022 through 2025)					
Police	$133.9	$107.0	$124.5	125%	108%
Fire	$115.2	$108.7	$108.7	106%	106%
Including 2020 and 2021 Experience (includes 2016 through 2025)					
Police	$155.6	$119.7	$138.5	130%	112%
Fire	$107.2	$99.8	$99.8	107%	107%

Colorado Springs New Hire Plans

We recommend no change to the Colorado Springs New Hire Plans termination assumptions. This assumption showed no significant bias in the gain loss experience over the prior four years, and because these plans were closed in 2006 and all members have 16 years of service or more, this assumption is becoming increasingly immaterial to the projection of benefits under these plans.

Volunteer Firefighter Plans

The termination experience for the Volunteer Firefighter plans was studied based on the 12-year period ending December 31, 2025 for plans that remained open to new members during this time period. The actual to expected ratio for members with less than 20 years of service was 122%. Because there may be

significant variability in this experience by employer, we prefer to leave some conservatism. We recommend no change to this assumption.

Retirement Rates

Statewide Retirement Plan

We currently use three different sets of retirement rates for:

- members that are at least 55, have at least five years of service, but less than 25 (early retirement);
- members that are at least 55 and have at least 25 years of service (normal retirement); and
- members that are at least age 50 and whose age plus service is at least 75 (rule of retirement).

We do not assume any reduced (prior to age 55) early retirement. There is very little reduced early retirement experience and this is a slightly conservative assumption.

In the age 55+ early retirement experience for the Statewide Retirement Plan at low service levels, we saw more retirement than anticipated and recommend an increase to those rates. The inverse was true at service amounts close to 25, and we recommended a very modest reduction in rates.

This is the first experience study performed where there was credible data to assess the impact of the Rule of 80 provision. In the normal retirement experience, retirement at age 55 was reduced compared to prior studies, possibly because members had already reached unreduced retirement through the Rule of provisions prior to age 55 and accordingly, we recommended a flat rate of 40% probability from age 55 onward. As this data set continues to grow and gain credibility, we also gained confidence that a meaningful portion of this population does continue to work into their mid 60s and propose extending the maximum retirement age from age 62 to age 65.

The current Rule of Retirement assumption is a formula-based assumption. The formula anticipates higher rates of retirement at first eligibility and at older ages and is not based on any SRP experience (as none was available upon implementation). In looking at this first available data, that pattern did not bear out. Instead, we recommend a flat 40% probability of retirement for Rule of Retirements, similar to Normal Retirement.

It is important to note that a member entering Deferred Retirement Option Plan (DROP) appears to be a retirement in the actuarial valuation and so any reference to retirement will include members entering DROP as well as members who retire directly from active status.

Colorado Springs New Hire Plans

Fire Component

We recommend continuing to largely mirror the retirement rates of the Statewide Retirement Plan with a flat 40% probability of retirement once eligible for unreduced benefits. However, we recommend continuing to use a maximum retirement age of 60 for this plan (vs. 65 in the Statewide Retirement Plan). This reflects the more generous benefits under this plan as well as the supporting data which shows limited active employment (excluding DROP) after age 60 in this plan. There is an early retirement rate

assumption in this plan which is currently 7.5% and we recommend lowering that assumption to 5.0% based on observed experience.

Police Component

During 2022 through 2025, for the Police Component, there was less than 1% retirement at ages less than 50. For those age 50 and older, we recommend a flat rate of retirement of 50% for those with 25 or more years of service and 10% for those with less than 25 years of service. Observed data showed rates of 50% and 9% respectively. We recommend continuing to use a maximum retirement age of 55.

Volunteer Firefighter Plans

The Volunteer Firefighter valuations assume 50% of members eligible to retire in a given year will retire, until age 65 when 100% retirement is assumed. Based on the 2021 and 2023 valuation results, 416 retirements were expected during the 2021 through 2024 calendar years. During that time there were 346 actual retirements resulting in an actual to expected ratio of 120%. We recommend no change to this assumption.

Other Assumptions

Spouse Assumption – Statewide Retirement Plan

We currently assume 100% of members are married or in a civil union, but we combine this with a reduction in the baseline active mortality rates. While this method does not have a large impact on the results, it does help better align the assumptions with the data that we receive since an active death may simply appear as a refund in cases where no spouse or civil union partner is available to collect a death benefit. No change is recommended.

Spouse Assumption – Colorado Springs New Hire Plans

The spouse assumption is more material for the Colorado Springs New Hire Plans because those plans offer a subsidized post-retirement death benefit for married participants. Data for retirements over the last four years indicates 86% of members were married at retirement. We recommend keeping the 85% marriage assumption for purposes of valuing the post-retirement death benefit.

Spouse Assumption - Volunteer Fire Plans

Similarly, the spouse assumption is material for the Volunteer Fire Plans because they offer a subsidized post-retirement death benefit. Data for recent retirements indicates less than 90% of members were married at retirement. We recommend keeping the 90% marriage assumption for purposes of valuing the post-retirement death benefit to maintain some margin of conservatism, to account for possible re-marriage post-retirement, and to account for potential variability by employer.

Load on Occupational Disability Benefits – Statewide Death and Disability Plan

As mentioned in the disability rate section, some conservatism was included in the total disability rates to account for the fact that members that initially go out through occupational disability can reapply for, and if

approved, convert to total disability within five years of retirement. This accounts for current active members, but does not account for the current occupational disability annuitants that are within the five-year window that may convert. To account for these participants, we load occupational disability benefits by four percent for those members who have retired within the last five years. This reflects that approximately 10 percent will convert, and those conversions will generally increase benefits by about 40 percent. We recommend that this load be reduced to three percent based on recent experience which showed less conversions.

Valuation of Inactive Members

FPPA has a substantial inactive population, members who have terminated active employment, but not submitted an application for a benefit. Many of the participants in this population are entitled to a vested annuity benefit. Currently, this population is valued using member contributions and in cases where the member has 10 or more years of service, two times member contributions. GRS has observed that this two times contributions approach often undervalues the deferred annuity benefits. We propose valuing an estimated deferred annuity benefit using pay-history where available, and an estimated final average compensation based on time since termination where it is not available.

Other Assumptions

There are other assumptions made in the course of a valuation that make up the full assumption set used. We have thoroughly reviewed all of these ancillary assumptions, and believe they are generally appropriate and reasonable. Therefore, we recommend no changes to these other assumptions. A listing of all of these assumptions is in Section E.

Actuarial Methods

We recommend no change to any of the actuarial methods being used.

Administrative Procedures

We have reviewed the current processes used to determine default ages, salaries, genders, etc. for missing or inconsistent data and recommend no changes.

SECTION D

ACTUARIAL IMPACT OF RECOMMENDATIONS

Estimated Actuarial Impact of Recommendations

For illustrative purposes, the tables shown below show the impact of the proposed assumption changes on the results of the most recent valuations.

StatewideRetirement Plan Valuation Results as of January 1, 2026 ($ in millions)		
	Current	**All Proposed**
Normal cost	16.94%	17.34%
Results Based on Actuarial Value of Assets		
Reserve	$172	$118
Funded ratio	103.5%	102.3%
Est Breakeven COLA (Board Policy) in 2026	0.30%	0.20%
Results Based on Market Value of Assets		
Reserve	$447	$392
Funded ratio	109.0%	107.8%
Est Breakeven COLA (Board Policy) in 2026	0.77%	0.65%
Final Benefits Policy COLA		
October 2026	**0.50%**	**0.50%**
Projected October 2036*	1.39%	1.26%

Statewide Death and Disability Plan Valuation Results as of January 1, 2026 ($ in millions)		
	Current	**All Proposed**
No COLA Results		
UAAL/(Surplus)	$8	($5)
Calculated Contribution	4.05%	3.97%
Board Policy Results (1% after 15 years)		
UAAL/(Surplus)	$59	$47
Calculated Contribution	4.34%	4.27%

Colorado Springs New Hire Plan Valuation Results as of January 1, 2026 ($ in millions)			
	Current Assumptions	**Proposed Assumptions**	**Proposed Assumptions - Market Value***
Fire Component			
Funded ratio	86.8%	84.2%	88.7%
Minimum Actuarially Determined Contribution	$4.64	$5.75	$4.28
Recommended Contribution for Calendar Year One Year After Valuation Year Including Level Funding	$5.29	$5.75	$5.29
Police Component			
Funded ratio	90.9%	88.0%	92.7%
Minimum Actuarially Determined Contribution	$7.98	$10.37	$6.92
Recommended Contribution for Calendar Year One Year After Valuation Year Including Level Funding	$10.18	$10.37	$10.18

*Impacts to recommended contribution are based on the actuarial valuation as of January 1, 2026. Assuming these assumption changes are adopted for first use in the actuarial valuation as of January 1, 2027, recognition of the deferred investment gains as well as the diminishing normal cost of the closed group make it such that the recommended contribution for 2028 is likely, though not guaranteed, to not exceed the level funding contribution and no contribution increase will be needed. The market value results are shown to demonstrate the potential impact of the deferred investment gains.

SECTION E

SUMMARY OF ASSUMPTIONS AND METHODS INCORPORATING THE RECOMMENDED ASSUMPTIONS

Summary of Actuarial Methods and Assumptions

The following presents a summary of the actuarial assumptions and methods used in the valuation of the SRP and the SWDD. This report focuses on those two plans because the assumptions and methods derived from those two plans translate well to the other plans covered under FPPA. Additional information regarding assumptions specific to the Volunteer Plan and Colorado Springs New Hire Plans can be found on pages 40 and 41.

I. Valuation Date

The valuation date is January 1st of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

II. Actuarial Cost Method

The SRP and SWH-DB actuarial valuation use the Entry Age Normal actuarial cost method. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) a rate that will amortize the unfunded actuarial liability.

1. The valuation is prepared on the projected benefit basis. The present value of each participant's expected benefit payable at retirement or termination is determined, based on age, service, sex, compensation, and the interest rate assumed to be earned in the future 7.00%. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his terminating with a service benefit. Future salary increases are also anticipated. The present value of the expected benefits payable on account of the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Plan on account of the present group of participants and beneficiaries.

2. The employer contributions required to support the benefits of the Plan are determined following a level funding approach, and consist of a normal cost contribution and an accrued liability contribution.

3. The normal cost contribution is determined using the Entry Age Normal method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of his anticipated covered service, would be required in addition to the contributions of the participant to meet the cost of all benefits payable on their behalf.

4. The unfunded accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability. In cases of surplus, this amount is amortized over 30 years. In cases of unfunded liability, this amount is amortized over a period such that the amortization provides for at least the interest accruing on the unfunded liability during the year. It is assumed that payments are made monthly throughout the year.

The SWDD actuarial valuation uses the Aggregate Funding Method. Under this method, the contribution rate is calculated to fully fund the present value of all benefits over the remaining working career of the active employees. The contribution rate is determined as a percentage of increasing payroll.

1. The valuation is prepared on the projected benefit basis. The present value of each participant's expected benefit payable at retirement or termination is determined, based on age, service, sex, compensation, and the interest rate assumed to be earned in the future 7.00%. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his terminating with a service benefit. Future salary increases are also anticipated. The present value of the expected benefits payable on account of the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Plan on account of the present group of participants and beneficiaries.

2. The actuarial value of assets is subtracted from the present value of all expected benefits to determine the present value of future normal costs. The future normal costs are spread across the future value of salaries to be paid to the current active population to determine a contribution rate.

III. Actuarial Value of Assets

The actuarial value of assets is equal to the market value of assets less a five-year phase in of the excess (shortfall) between expected investment return and actual income. The actual calculation is based on the difference between actual earnings and expected earnings each year, and recognizes the cumulative excess return (or shortfall) over at a minimum rate of 20% per year. The speed of the recognition will increase if the Plan continues to be in the same net deferred position (net gain or net loss) from one year to the next. This is intended to ensure the smoothed value of assets will converge towards the market value in a reasonable amount of time. In addition, a gain or loss that is in the opposite direction of the current net position will be immediately recognized.

Expected earnings are determined using the assumed investment return rate and the beginning of year actuarial value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses.

IV. Actuarial Assumptions

A. Economic Assumptions

1. Investment return: 7.00% per annum, compounded annually, composed of an assumed 2.50% inflation rate and a 4.50% real rate of return. This rate represents the assumed return, net of all investment expenses.
2. Salary increase rate: Inflation rate of 2.50%, plus productivity component of 2.00%, plus step-rate/ promotional component as shown:

Years of Service	Annual Step-rate/ Promotional Rate	Total Annual Rate of Increase Including 2.50% Inflation Component and 2.00% Productivity Component
(1)	(2)	(3)
1	8.50%	13.00%
2	8.00%	12.50%
3	7.50%	12.00%
4	7.00%	11.50%
5	4.25%	8.75%
6	1.75%	6.25%
7	1.75%	6.25%
8	1.25%	5.75%
9	1.25%	6.75%
10	1.00%	5.50%
11	1.00%	5.50%
12	0.75%	5.25%
13	0.75%	5.25%
14	0.50%	5.00%
15	0.00%	4.50%

Salary increases are assumed to occur once a year, on January 1. Therefore, the pay used for the period between the valuation date and the first anniversary of the valuation date is equal to the reported pay for the prior year, annualized if necessary, and then increased by the salary increase assumption.

3. Payroll growth rate: In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 3.00% per year. This increase rate is primarily due to the effect of inflation on salaries, with no allowance for future membership growth.

B. Demographic Assumptions

1. Mortality rates (members in payment status) –

a. Healthy retirees and beneficiaries: Pub-2016 Safety Healthy Annuitant Mortality Tables for males and females, amount-weighted, projected with the ultimate values of the MP-2020 projection scale.

	Annual Rate per 1,000 Members				
Attained Age in 2026	Males	Females	Attained Age in 2026 (cont.)	Males	Females
(1)	(2)	(3)	(4)	(5)	(6)
50	1.73	1.41	70	11.83	10.29
55	2.58	2.21	75	22.41	18.72
60	3.95	3.53	80	41.61	34.36
65	6.49	5.86	85	76.46	63.84

b. Occupationally disabled retirees: Pub-2016 Safety Healthy Annuitant Mortality Tables for males and females, amount-weighted, set forward three years, projected with the MP-2020 Ultimate projection scale.

	Annual Rate per 1,000 Members				
Attained Age in 2026	Males	Females	Attained Age in 2026 (cont.)	Males	Females
(1)	(2)	(3)	(4)	(5)	(6)
50	2.20	1.84	70	17.37	14.69
55	3.32	2.92	75	32.58	26.96
60	5.25	4.75	80	60.16	49.85
65	9.21	8.17	85	108.76	92.49

c. Totally disabled retirees: Pub-2016 Safety Healthy Annuitant Mortality Tables for males and females, amount-weighted, set forward five years projected with the MP-2020 Ultimate projection scale, with minimum probability of 3.5% for males and 2.5% for females.

	Annual Rate per 1,000 Members				
Attained Age in 2026	Males	Females	Attained Age in 2026 (cont.)	Males	Females
(1)	(2)	(3)	(4)	(5)	(6)
50	35.00	25.00	70	35.00	25.00
55	35.00	25.00	75	41.61	34.36
60	35.00	25.00	80	76.46	63.84
65	35.00	25.00	85	137.10	118.37

2. Mortality rates (active members): Pub-2016 Safety Healthy Employee Mortality Tables for males and females, amount-weighted, projected with the MP-2020 Ultimate projection scale, 60% multiplier for off-duty mortality. Increased by 0.00010 for on-duty related Fire and Police experience. Sample rates are shown below:

	Annual Rate per 1,000 Members				
Attained Age in 2026	Males	Females	Attained Age in 2026 (cont.)	Males	Females
(1)	(2)	(3)	(4)	(5)	(6)
20	0.24	0.16	40	0.41	0.34
25	0.28	0.18	45	0.51	0.45
30	0.31	0.22	50	0.71	0.62
35	0.35	0.26	55	1.04	0.89

3. Disability rates: Sample rates are shown below by age and disability type.

	Annual Rate per 1,000 Members			
Age	Occupational Disability Rates (MP)	Occupational Disability Rates (SRP)	Total Disability Rates (MP)	Total Disability Rates (SRP)
(1)	(2)	(3)	(4)	(5)
25	0.23	0.48	0.02	0.02
30	1.07	2.26	0.17	0.17
35	1.44	3.05	0.34	0.34
40	2.11	4.48	0.52	0.52
45	3.68	5.53	0.72	0.72
50	7.98	8.22	0.94	0.94
55	13.98	11.56	1.17	1.17

Occupational disability rates at ages within five years of normal retirement eligibility will be shut off in the Statewide Retirement Plan valuation in instances where the pension benefit accrual exceeds the benefits payable from the Statewide Death and Disability plan.

4. Termination rates (for causes other than death, disability or retirement): Termination rates are based on service. Termination rates are not applied after a member becomes eligible for a retirement benefit. Rates at selected ages are shown:

Fire:

	Annual Rate per 1,000 Members				
Service	Rates	Service (cont.)	Rates	Service (cont.)	Rates
0	76.3	9	21.4	18	10.2
1	58.4	10	19.0	19	9.7
2	51.6	11	17.1	20	9.3
3	45.6	12	15.4	21	8.8
4	40.1	13	14.1	22	8.1
5	35.3	14	12.9	23	7.5
6	31.0	15	12.0	24	6.6
7	27.4	16	11.4	25	5.5
8	24.2	17	10.7	26	4.2

Police:

	Annual Rate per 1,000 Members				
Service	Rates	Service (cont.)	Rates	Service (cont.)	Rates
0	100.9	9	44.1	18	19.5
1	92.7	10	40.0	19	18.3
2	84.9	11	36.2	20	17.3
3	77.7	12	32.9	21	16.6
4	70.9	13	29.9	22	16.0
5	64.7	14	27.2	23	15.6
6	58.9	15	24.8	24	15.5
7	53.5	16	22.8	25	15.4
8	48.6	17	21.0	26	15.6

5. Retirement rates:

Members of the SWDD Plan are assumed to retire at the time of attaining:

A. Statewide Retirement Plan Members and other New Hire Plan Members: Age 55 with 22 years of service or current age, if greater.

B. Money Purchase Plan Members: The earliest of Age 65 or Age 55 with 25 years of service; or current age, if greater. For members age 55 with less than 25 years of

service, service-based rates consistent with the SRP service-based rates shown below.

C. Denver Police Old Hire Plan Members: Age after 25 years of service, or current age, if greater.

D. Denver Fire Old Hire Plan Members: Age 50 and 25 years of service, or current age, if greater.

E. All Other Plan members: Age 52 or current age, if greater.

Age-Based Retirement rates, for SRP members age 55 or older with more than 25 years of service or meeting Rule of:

Age	Annual Rate per 100 Members
50-64	40
65+	100

Service-Based Retirement rates for SRP members*

Service	Annual Rate per 100 Members
5-17	10
18	12
19	14
20	16
21	18
22	20
23	22
24	24

*Rates first applied at age 55; 100 percent retirement assumed at age 70.

C. Other Assumptions

1. Administrative expenses: Based on actual administrative expenses paid in the prior year.

2. Percent married: 100% of employees are assumed to be married or in a civil union.

3. Age difference: Male members are assumed to be two years older than their spouses, and female members are assumed to be two years younger than their spouses.

4. Cost of living escalators (COLA): Current Law – 0%.

5. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an annuity.

6. Percent electing deferred termination benefit: Vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.

7. No surviving spouse will remarry and there will be no children's benefit.

9. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt at the first age at which unreduced benefits are available.

10. Pay increase timing: Beginning of (fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.

11. Decrement timing: Decrements of all types are assumed to occur mid-year.

12. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

13. Decrement relativity: Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.

14. Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.

15. Benefit Service: All members are assumed to accrue 1 year of service each year. Exact fractional service is used to determine the amount of benefit payable.

16. Inactive Population: All members included in the inactive non-vested population with at least 5 years of service are valued using estimated deferred annuity benefits. In instances where some pay history is available, the maximum annual pay is used for final average compensation. In cases where no history is available, final average compensation is estimated as current average active pay discounted by 4.5% for each year since termination.

17. For SWDD Plan, Money Purchase Offset: For members where no data is available, the current money purchase balance is estimated using current pay, estimated pay histories, actual plan investment returns, and the current money purchase contribution rate specific by employer. The balance is projected forward using 7.00% investment returns, and the current money purchase contribution rate specific by employer. The money purchase account used for offset is limited based on the specific money purchase contribution rate by employer and the contribution rate requirements for the Statewide Death & Disability Plan. At decrement, the limited account is converted to an annuity using current actuarial equivalence factors.

18. For SWDD Plan, SRA Offset: The SRA balances are projected forward using 7.00% investment returns. No future SRA contributions are assumed. At decrement, the account is converted to an annuity using current actuarial equivalence factors.

19. For SWDD Plan, Retirement Processing: In order to reflect the lengthy application period and associated processing lag, a load is included in the Present Value of Future Benefits equal to the liability associated with new retirees in this year's valuation data who had not been included in the previous year's valuation data due to processing.

20. For SWDD Plan, Conversion to Total Disability: load occupational benefits in place for less than five years by three percent to reflect the potential conversion to Total Disability benefits.

D. Participant Data

Participant data was supplied on electronic files in the form of spreadsheets. There were separate tabs for (i) active and non-vested inactive members, and (ii) members and beneficiaries receiving benefits or vested inactives.

The data for active members included birthdate, sex, service, salary and employee contribution account balance. For retired members and beneficiaries, the data included date of birth, sex, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement, and a form of payment code.

Salary supplied for the current year was based on the earnings for the year preceding the valuation date adjusted for service accrued during the year. In cases where the earnings for the year two years prior to the valuation date was higher, this higher amount was used. This salary was adjusted by the salary increase rate for one year.

Assumptions were made to correct for missing, bad, or inconsistent data. These had no material impact on the results presented.

E. Allocation to SRA

The SRA contribution rate is determined annually based on the normal cost plus amortization of unfunded liability (surplus). The excess of the total contribution rate (21.00% in 2022, ratcheted up by 0.50% until reaching 25.0% in 2030) over the actuarial requirement is available as the SRA contribution rate. The Board has the authority and responsibility to choose the SRA rate. Other considerations may be evaluated such as:

1. Investment performance subsequent to the actuarial valuation
2. Potential future plan changes under consideration
3. Stability of SRA
4. Projections of future SRA contributions
5. Ability to grant future benefit adjustments to retired members

Summary of Alternate Actuarial Methods and Assumptions

The following presents a summary of any actuarial assumptions and methods used in the valuation of the Volunteer, Old Hire, and Colorado Springs New Hire Plans where the assumptions do not translate directly from the SRP and SWDD assumptions.

Colorado Springs New Hire – Fire Component:

Age-Based Retirement rates, for CS NH Fire members age 55 with more than 25 years of service or meeting Rule of 80 prior to age 55

Age	Annual Rate per 100 Members
50-59	40
60	100

Members eligible for early retirement have a 5.0% rate of retirement applied starting at age 50.

Withdrawal (any reason other than retirement, death, or disability) rates at selected ages are shown:

	Annual Rate per 1,000 Members		
Years of Service	Termination Rates	Years of Service	Termination Rates
0	83.9	15	13.2
1	64.3	16	12.5
2	56.8	17	11.8
3	50.1	18	11.2
4	44.1	19	10.7
5	38.8	20	10.2
6	34.1	21	9.7
7	30.1	22	8.9
8	26.6	23	8.2
9	23.6	24	7.2
10	20.9	25	6.0
11	18.8	26	4.7
12	17.0	27	2.8
13	15.5	28	0.7
14	14.2	29+	0.0

Percent married: For purposes of valuing the post-retirement death benefit, 85% of employees are assumed to be married or in a civil union.

Colorado Springs New Hire – Police Component:

Age-Based Retirement rates, for CS NH Police members with more than 25 years of service

Age	Annual Rate per 100 Members	
	Members with more than 25 years of service	Members with less than 25 years of service
50-54	50	10
55	100	100

No retirement is assumed prior to age 50.

d) Withdrawal (any reason other than retirement, death, or disability) rates at selected ages are shown:

Annual Rate per 1,000 Members			
Years of Service	Termination Rates	Years of Service	Termination Rates
0	126.4	15	19.9
1	96.8	16	18.8
2	85.5	17	17.7
3	75.5	18	16.9
4	66.4	19	16.1
5	58.4	20	15.4
6	51.4	21	14.6
7	45.4	22	13.5
8	40.0	23	12.4
9	35.5	24	10.9
10	31.5	25	9.1
11	28.3	26	7.0
12	25.6	27	4.3
13	23.4	28	1.1
14	21.5	29+	0.0

Percent married: For purposes of valuing the post-retirement death benefit, 85% of employees are assumed to be married or in a civil union.

Volunteer Fire:

Retirement — Age 50 and 20 years of service.

Age	Annual Rate Per 100
50	50
55	50
60	50
65	100

Withdrawal (any reason other than retirement, death, or disability)

Annual Rate Per 1,000 Withdrawals			
Service	Rates	Service	Rates
1	182.37	11	83.96
2	169.99	12	77.23
3	158.17	13	71.06
4	146.92	14	65.45
5	136.24	15	60.41
6	126.12	16	55.94
7	116.56	17	52.02
8	107.56	18	48.68
9	99.13	19	45.89
10	91.27		

Twenty percent (20%) of members age 50 and eligible for a terminated vested benefit which would commence immediately are assumed to withdraw each year.

Percent married: For purposes of valuing the post-retirement death benefit, 90% of employees are assumed to be married or in a civil union.

Administrative expenses: Based on average actual administrative expenses paid in the prior two years.

Old Hire Plans:

Administrative expenses: Based on average actual administrative expenses paid in the prior two years.

SECTION F

SUMMARY OF DATA AND EXPERIENCE

Statewide Retirement Plan
10-Year Service-Based Salary Experience

Current Salary Scale			Actual Experience			Proposed Salary Scale	
Years of Service	Total	Step Rate/ Promotional	Total	Above Inflation	Step Rate/ Promotional	Total	Step Rate/ Promotional
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	11.75%	7.50%	14.61%	11.41%	9.31%	13.00%	8.50%
2	11.75%	7.50%	14.04%	10.84%	8.74%	12.50%	8.00%
3	11.25%	7.00%	12.60%	9.40%	7.30%	12.00%	7.50%
4	10.75%	6.50%	13.97%	10.77%	8.67%	11.50%	7.00%
5	8.00%	3.75%	9.87%	6.67%	4.57%	8.75%	4.25%
6	6.00%	1.75%	7.24%	4.04%	1.94%	6.25%	1.75%
7	6.00%	1.75%	6.88%	3.68%	1.58%	6.25%	1.75%
8	5.50%	1.25%	6.47%	3.28%	1.18%	5.75%	1.25%
9	5.50%	1.25%	6.52%	3.32%	1.22%	5.75%	1.25%
10	5.25%	1.00%	6.23%	3.03%	0.93%	5.50%	1.00%
11	5.25%	1.00%	6.25%	3.05%	0.95%	5.50%	1.00%
12	5.00%	0.75%	6.18%	2.98%	0.88%	5.25%	0.75%
13	5.00%	0.75%	5.95%	2.75%	0.65%	5.25%	0.75%
14	4.75%	0.50%	5.78%	2.59%	0.49%	5.00%	0.50%
15+	4.25%	0.00%	5.30%	2.10%	0.00%	4.50%	0.00%

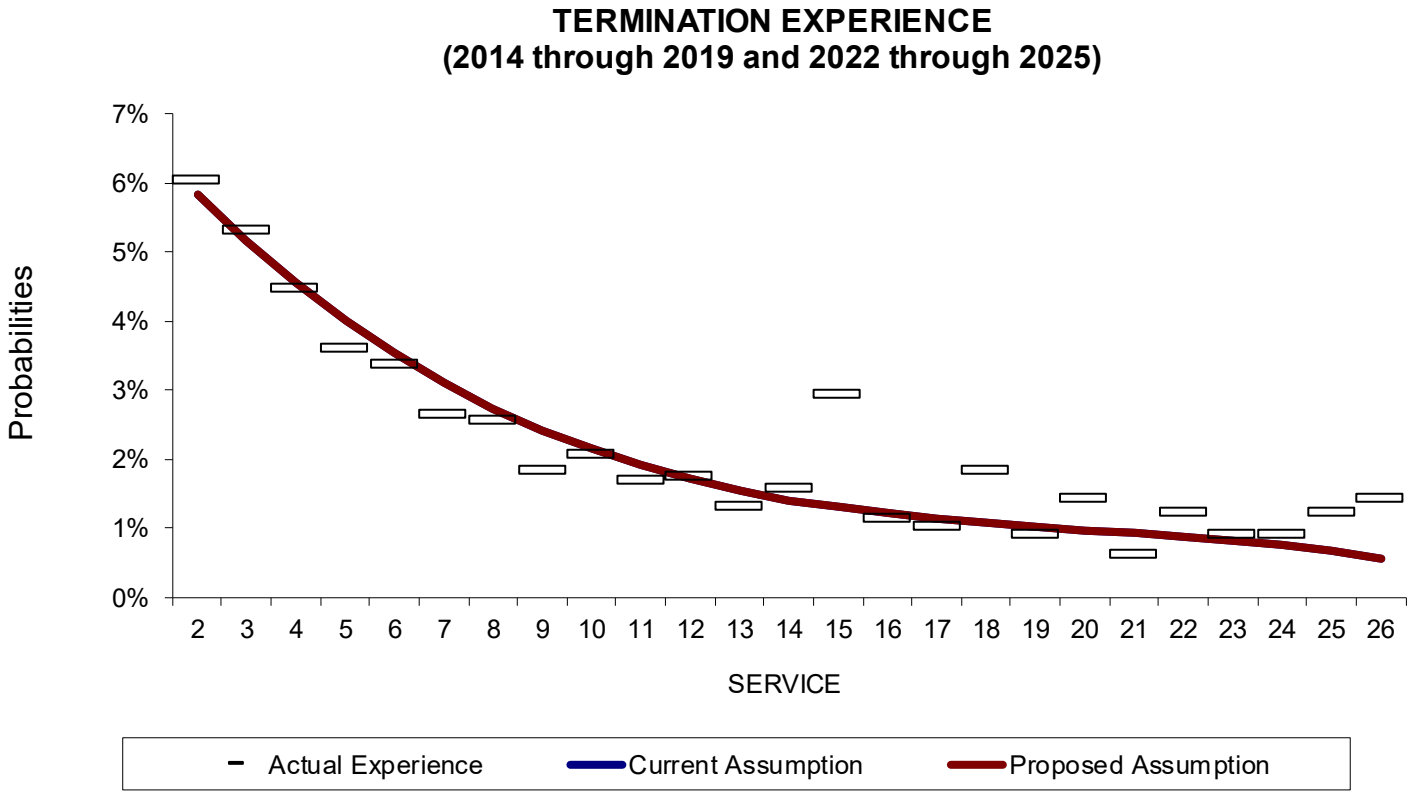
Current Inflation Assumption	2.50%	Proposed Inflation Assumption	2.50%
Current Productivity Component	1.75%	Proposed Productivity Component	2.00%
Actual CPI-U Inflation for Period	3.20%		
Apparent Productivity Component	2.10%		

Statewide Retirement Plan
10-Year Service-Based Salary Experience

Statewide Retirement Plan (2014 through 2019 and 2022 through 2025)
Service-Based Termination Experience – Fire Only

				Assumed Rate		Expected Termination Weighted By Salary $M		Actual/Expected	
Service	Actual Termination Weighted By Salary $M	Total Eligible Salary $M	Crude Rate	Current	Proposed	Current	Proposed	Current (2) / (7)	Proposed (2) / (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	14.8	140.9	10.50%	7.63%	7.63%	10.7	10.7	138%	138%
2	16.0	265.1	6.05%	5.84%	5.84%	15.5	15.5	103%	103%
3	13.4	252.5	5.31%	5.16%	5.16%	13.0	13.0	103%	103%
4	10.7	239.3	4.47%	4.55%	4.55%	10.9	10.9	98%	98%
5	8.2	228.0	3.61%	4.01%	4.01%	9.1	9.1	90%	90%
6	7.4	218.4	3.39%	3.53%	3.53%	7.7	7.7	96%	96%
7	5.4	202.1	2.65%	3.11%	3.11%	6.3	6.3	85%	85%
8	4.7	181.5	2.57%	2.74%	2.74%	5.0	5.0	94%	94%
9	3.2	170.3	1.85%	2.41%	2.41%	4.1	4.1	77%	77%
10	3.4	161.4	2.09%	2.14%	2.14%	3.5	3.5	98%	98%
11	2.6	150.8	1.71%	1.90%	1.90%	2.9	2.9	90%	90%
12	2.6	150.3	1.76%	1.71%	1.71%	2.6	2.6	103%	103%
13	1.9	144.0	1.34%	1.54%	1.54%	2.2	2.2	87%	87%
14	2.2	137.7	1.59%	1.41%	1.41%	1.9	1.9	113%	113%
15	4.0	135.8	2.94%	1.30%	1.30%	1.8	1.8	226%	226%
16	1.5	132.8	1.15%	1.21%	1.21%	1.6	1.6	95%	95%
17	1.4	140.0	1.02%	1.13%	1.13%	1.6	1.6	90%	90%
18	2.6	139.6	1.83%	1.07%	1.07%	1.5	1.5	171%	171%
19	1.2	133.7	0.92%	1.02%	1.02%	1.4	1.4	90%	90%
20	1.8	122.9	1.44%	0.97%	0.97%	1.2	1.2	148%	148%
21	0.7	112.0	0.62%	0.93%	0.93%	1.0	1.0	67%	67%
22	1.3	104.1	1.24%	0.88%	0.88%	0.9	0.9	141%	141%
23	0.9	93.8	0.93%	0.82%	0.82%	0.8	0.8	114%	114%
24	0.8	84.5	0.92%	0.75%	0.75%	0.6	0.6	123%	123%
25	0.9	70.8	1.24%	0.66%	0.66%	0.5	0.5	188%	188%
26	0.6	44.3	1.45%	0.55%	0.55%	0.2	0.2	263%	263%
27	0.6	29.2	1.88%	0.42%	0.42%	0.1	0.1	448%	448%
28	0.3	18.8	1.69%	0.26%	0.26%	0.0	0.0	649%	649%
29	0.2	11.3	1.92%	0.07%	0.07%	0.0	0.0	2823%	2823%
Totals	115	4,016	2.87%	2.73%	2.73%	109	109	106.0%	106.0%

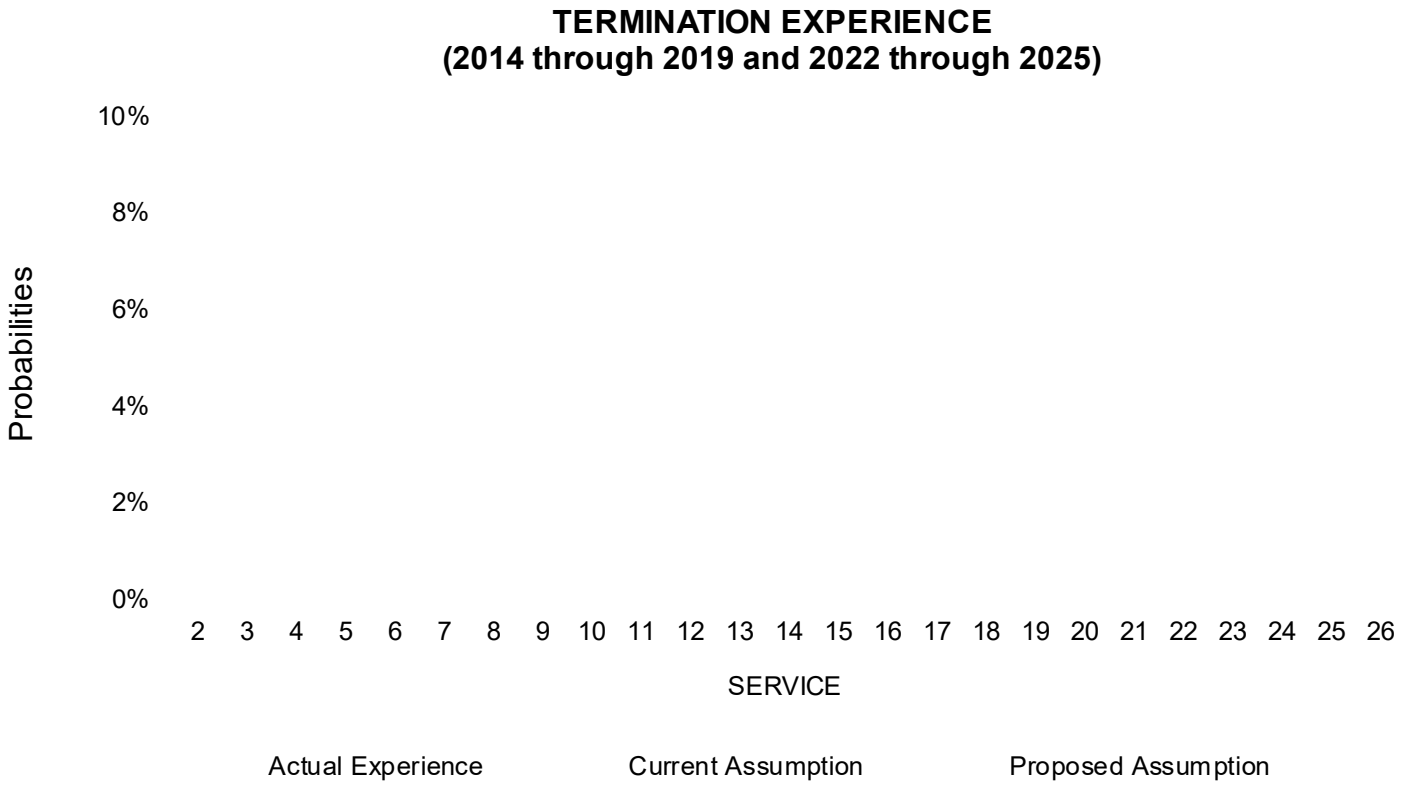
Statewide Retirement Plan
(2014 through 2019 and 2022 through 2025)
Service-Based Termination Experience – Fire Only



Statewide Retirement Plan (2014 through 2019 and 2022 through 2025)
Service-Based Termination Experience – Police Only

				Assumed Rate		Expected Termination Weighted By Salary $M		Actual/Expected	
Service	Actual Termination Weighted By Salary $M	Total Eligible Salary $M	Crude Rate	Current	Proposed	Current	Proposed	Current (2) / (7)	Proposed (2) / (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	22.6	132.5	17.03%	11.49%	10.09%	15.2	13.4	148%	169%
2	19.5	195.3	10.00%	8.80%	9.27%	17.2	18.1	114%	108%
3	12.5	165.7	7.56%	7.78%	8.49%	12.9	14.1	97%	89%
4	11.0	148.0	7.40%	6.86%	7.77%	10.2	11.5	108%	95%
5	9.4	131.4	7.14%	6.04%	7.09%	7.9	9.3	118%	101%
6	7.9	126.0	6.27%	5.32%	6.47%	6.7	8.1	118%	97%
7	7.7	117.0	6.56%	4.68%	5.89%	5.5	6.9	140%	111%
8	6.1	103.9	5.89%	4.12%	5.35%	4.3	5.6	143%	110%
9	5.4	107.0	5.01%	3.64%	4.86%	3.9	5.2	138%	103%
10	4.8	107.2	4.51%	3.22%	4.41%	3.5	4.7	140%	102%
11	3.4	100.6	3.42%	2.87%	4.00%	2.9	4.0	119%	86%
12	3.0	86.6	3.43%	2.57%	3.62%	2.2	3.1	133%	95%
13	2.5	72.7	3.41%	2.32%	3.29%	1.7	2.4	147%	104%
14	2.3	71.1	3.17%	2.12%	2.99%	1.5	2.1	150%	106%
15	1.4	67.0	2.07%	1.95%	2.72%	1.3	1.8	106%	76%
16	1.6	68.0	2.42%	1.82%	2.48%	1.2	1.7	133%	97%
17	2.0	78.0	2.50%	1.71%	2.28%	1.3	1.8	147%	110%
18	1.4	83.5	1.71%	1.62%	2.10%	1.4	1.8	106%	82%
19	1.9	80.0	2.33%	1.54%	1.95%	1.2	1.6	151%	119%
20	1.5	72.1	2.06%	1.47%	1.83%	1.1	1.3	140%	112%
21	1.2	60.6	1.90%	1.40%	1.73%	0.8	1.0	136%	110%
22	1.1	58.5	1.94%	1.32%	1.66%	0.8	1.0	147%	117%
23	0.8	55.4	1.37%	1.23%	1.60%	0.7	0.9	111%	85%
24	0.6	51.9	1.13%	1.12%	1.56%	0.6	0.8	101%	72%
25	0.9	49.8	1.75%	0.99%	1.55%	0.5	0.8	176%	113%
26	0.6	36.9	1.53%	0.83%	1.54%	0.3	0.6	185%	99%
27	0.2	27.6	0.87%	0.63%	1.56%	0.2	0.4	137%	56%
28	0.7	22.7	2.88%	0.39%	1.58%	0.1	0.4	734%	182%
29	0.2	14.7	1.69%	0.10%	1.62%	0.0	0.2	1645%	104%
Totals	134	2,491	5.38%	4.29%	5.00%	107	125	125.2%	107.5%

Statewide Retirement Plan
(2014 through 2019 and 2022 through 2025)
Service-Based Termination Experience – Police Only



Statewide Retirement Plan
Early (<25 yos) Retirement Experience

				Assumed Rate		Expected Retirement		Actual/Expected	
Service	Actual Retirement	Total Count	Actual Rate	Current	Proposed	Current (3) * (5)	Proposed (3) * (6)	Current (2) / (7)	Proposed (2) / (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
5	10	52	0.192	0.080	0.100	4	5	240%	192%
6	7	48	0.145	0.080	0.100	4	5	181%	145%
7	5	62	0.085	0.080	0.100	5	6	106%	85%
8	11	74	0.153	0.080	0.100	6	7	191%	153%
9	9	98	0.091	0.080	0.100	8	10	114%	91%
10	9	107	0.080	0.080	0.100	9	11	100%	80%
11	5	98	0.053	0.080	0.100	8	10	66%	53%
12	12	120	0.102	0.080	0.100	10	12	127%	102%
13	16	169	0.092	0.080	0.100	13	17	116%	92%
14	47	194	0.244	0.080	0.100	16	19	305%	244%
15	11	206	0.056	0.090	0.100	19	21	62%	56%
16	30	307	0.098	0.090	0.100	28	31	108%	98%
17	54	499	0.109	0.100	0.100	50	50	109%	109%
18	86	606	0.141	0.110	0.120	67	73	129%	118%
19	112	649	0.173	0.120	0.140	78	91	144%	123%
20	121	690	0.175	0.130	0.160	90	110	135%	109%
21	120	733	0.164	0.150	0.180	110	132	109%	91%
22	171	815	0.209	0.200	0.200	163	163	105%	105%
23	215	1,003	0.215	0.250	0.220	251	221	86%	98%
24	257	1,078	0.238	0.250	0.240	270	259	95%	99%
Totals	1,309	7,608	0.172			1,205	1,252	109%	105%

Statewide Retirement Plan
Normal Retirement Experience (55 and 25 or Rule of 80)

				Assumed Rate		Expected Retirement		Actual/Expected	
Age	Actual Retirement	Total Count	Actual Rate	Current	Proposed	Current (3) * (5)	Proposed (3) * (6)	Current (2) / (7)	Proposed (2) / (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
50-54	2,148	5,626	0.382	0.363	0.400	2,042	2,250	105%	95%
55	894	2,392	0.374	0.600	0.400	1,214	957	74%	93%
56	592	1,673	0.354	0.450	0.400	753	669	79%	88%
57	343	1,128	0.304	0.450	0.400	508	451	68%	76%
58	343	876	0.391	0.450	0.400	394	351	87%	98%
59	218	676	0.323	0.450	0.400	304	270	72%	81%
60	129	460	0.281	0.450	0.400	207	184	62%	70%
61	116	360	0.321	0.450	0.400	162	144	71%	80%
62	79	285	0.279	1.000	0.400	285	114	28%	70%
63	45	216	0.207	1.000	0.400	216	86	21%	52%
64	27	124	0.220	1.000	0.400	124	50	22%	55%
65	59	86	0.688	1.000	1.000	86	86	69%	69%
66	11	47	0.235	1.000	1.000	47	47	23%	24%
67	12	41	0.293	1.000	1.000	41	41	29%	29%
68	33	55	0.602	1.000	1.000	55	55	60%	60%
69	25	25	1.000	1.000	1.000	25	25	99%	99%
Subtotal	2,927	8,445	0.347			4,421	3,530	66%	83%
70-74	18	112	0.163	1.000	1.000	112	112	16%	16%
Subtotal	2,946	8,557	0.344			4,533	3,642	65%	81%