KORN FERRY

Commonwealth of Pennsylvania
State Employees' Retirement System

20th Investigation of Actuarial Experience
January 1, 2020 to December 31, 2024

July 22, 2025

Twentieth Investigation of Actuarial Experience of the State Employees' Retirement System of the Commonwealth of Pennsylvania
Review of Experience from January 1, 2020 to December 31, 2024

Contents

I. Introduction & Executive Summary

Introduction

This is the twentieth in a series of investigations of actuarial experience of the State Employees' Retirement System (SERS) for the Commonwealth of Pennsylvania. This report is based upon economic and demographic experience from January 1, 2020 through December 31, 2024. A periodic review of actuarial experience is essential if a retirement system is to be financed on a sound basis. The Commonwealth has formally recognized this need in Section 5902(j) of the State Employees' Retirement Code:

> The board shall have the actuary make an annual valuation of the various accounts within six months of the close of each calendar year. In the year 1975 and in every fifth year thereafter the board shall have the actuary conduct an actuarial investigation and evaluation of the system based on data including the mortality, service, and compensation experience provided by the board annually during the preceding five years concerning the members and beneficiaries. The board shall by resolution adopt such tables as are necessary for the actuarial valuation of the fund and calculation of contributions, annuities and other benefits based on the reports and recommendations of the actuary.

A retirement system operates on a sound actuarial basis when the funds on hand, together with the expected future contributions, are sufficient to cover the value of future promised benefit payments. Each year the actuary projects the expected value of future benefits and the stream of contributions needed to meet the benefit payments. The projection serves as a basis for the determination of the needed employer contributions to the retirement fund. The projection is based on a wide variety of economic assumptions, such as assumed investment returns, and demographic assumptions, such as rates of mortality. Since both the economic and demographic experience change over time, it is essential to conduct a periodic review of the experience and to adjust the assumptions in the valuation to consider the most recent experience as well as the actuary's expectations for the future.

Economic assumptions include the rates of investment return and salary growth. Both the nominal investment return and salary growth are affected by the general rate of inflation. In periods of low inflation, salary increases will typically be smaller, with a greater emphasis on promotions and longevity, whereas in times of rapid price increases, salary increases will be larger, to keep pace with salaries of other employers competing for talent, and to maintain purchasing power. The development of these rates therefore includes an investigation of the underlying inflation and expectations for future inflation. These relatively few rates, compared to the large number of demographic assumptions, generally have the most significant effect on the estimate of future contributions. General economic forces, instead of the specific experience of the retirement system, are often given more consideration when setting an investment return, or salary growth assumption.

Demographic assumptions include the set of rates that predict certain events occurring to a group of employees or annuitants. Events of significance to a retirement system are those that result in a commencement or termination of a benefit payment. The events affecting active employees include reasons for leaving the system such as retirement, becoming disabled, terminating service, or death. The events affecting annuitants include death. If an annuitant would return to service, or if a disabled annuitant were to recover from disability, the benefit payments to the annuitant would stop. However, these events are not included in the analysis because the occurrences of these events are rare, and would not materially affect the calculation of the decrement rates.

It is general practice to introduce some degree of conservatism in setting actuarial assumptions. However, the degree of conservatism varies widely among pension plans. Some plans set assumptions so that the pension plan contributions will be at least as great as the contributions needed in the most adverse foreseeable circumstances. Other systems set assumptions that are close to the actual experience but conservative enough to protect against small deviations from past experience. The latter – a moderately conservative approach – has been used by the SERS Board and the recommended rates in this evaluation were developed on that basis.

The Actuarial Standards Board has issued standards (Actuarial Standards of Practice or ASOPs) on the selection of demographic and economic assumptions. These standards are revised from time to time to address emerging practice. The specific ASOPs that have guided Korn Ferry in performing this study and formulating recommended changes to the actuarial valuation assumptions for SERS are as follows:

- ASOP No. 27 – Selection of Economic Assumptions for Measuring Pension Obligations and
- ASOP No. 35 – Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations

Contents of this report:

- Section II of this report provides background information relating to this actuarial experience investigation.
- Section III presents the results of the review of the economic experience and discusses the basis for the recommended economic assumptions.
- Section IV presents the results of the analysis of the demographic experience, and the basis for the recommended demographic assumptions.
- Section V presents the results of other experience analyses we have performed (such as optional form election rates) and our conclusions regarding the related actuarial assumptions.
- Section VI provides information relating to the cost impact of Korn Ferry's recommendations and includes some closing remarks.
- Section VII provides the Actuarial Certification for the report.
- Section VIII defines certain terms used in this report.
- The Appendix, including Tables A-1 through A-23, provides a full set of recommended assumptions, all of which will become effective with Korn Ferry's December 31, 2025 actuarial valuation.
- Following the Appendix are tables of the detailed results of the many separate studies undertaken by Korn Ferry that underlie this 2020-2024 Actuarial Experience Study.

The following Executive Summary provides an overview of Korn Ferry's findings and recommendations.

Executive Summary

The basic objective of this analysis is to develop economic and demographic assumptions in accordance with the expected future experience of the System. In general, it is good actuarial practice to select actuarial valuation assumptions considering the System's actual experience over the recent past.

Economic Experience

The most important set of rates in the valuation is the set of economic assumptions that include the prediction of future rates of investment return and general salary increases. The assumed rates of investment return and general salary increases are both driven by the underlying rate of inflation. Based upon our analysis of SERS' past economic experience and our expectations for the future (as discussed in detail in Section III of this report), we recommend that:

- The current investment return assumption of 6.875 percent per year (compounded annually) remains unchanged in this study,
- The current inflation assumption of 2.50 percent per year (compounded annually) remains unchanged in this study,
- The current general salary increase assumption of 2.8 percent per year (compounded annually) remains unchanged in this study and
- The current career salary increase assumptions (which vary by length of service) be increased by varying amounts depending upon the employee's length of service at all service levels.

Note that the actuarial valuation assumes that future salary growth will be the total of assumed increases in the general salary schedule (across-the-board increases) plus assumed career salary growth (via promotion and longevity increases).

Table I-1 below shows, for the first three recommendations listed above, (i) Korn Ferry's recommended assumptions, (ii) the current assumptions and (iii) the prior assumptions, which were utilized over the preceding years of actuarial valuations (from 2019 through 2023).

Table I-1
Recommended vs. Current vs. Prior Economic Assumptions

	Annual Inflation	Investment Return		Salary Growth	
		Nominal	Real[1]	Nominal	Real
Recommended	2.50%	6.875%	4.3%	2.8%	0.3%
Current 2023 & 2024	2.50%	6.875%	4.3%	2.8%	0.3%
Prior 2021 & 2022	2.50%	7.00%	4.4%	2.8%	0.3%
Prior 2019 & 2020	2.60%	7.125%	4.4%	2.9%	0.3%

[1] The real investment return and real salary growth rate are determined using the formula (1+real) = (1+nominal)/(1+inflation). The rates shown are annual rates.

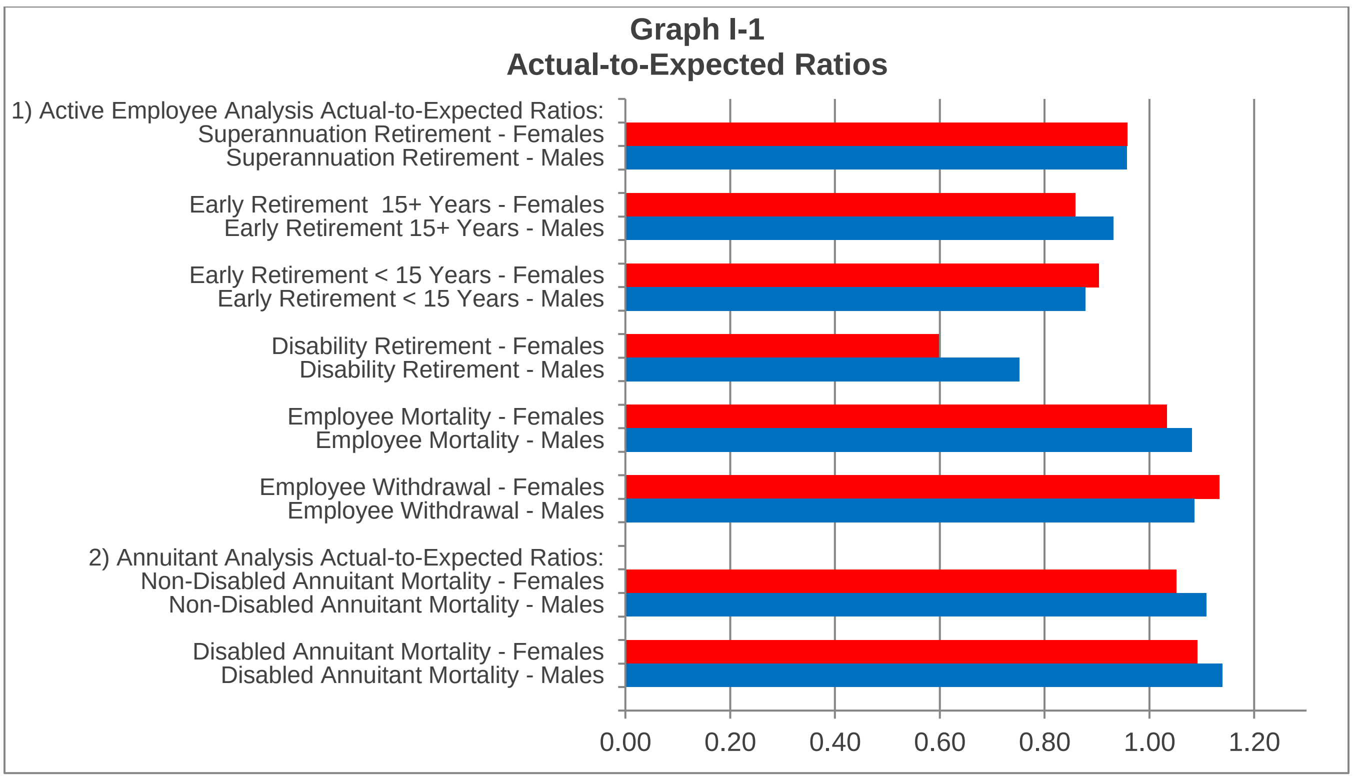
For the specific service-related reductions we are recommending to the salary increase assumptions, per the fourth recommendation listed above, see Table A-1 of the Appendix.

Demographic Experience

Development of demographic actuarial assumptions begins with the analysis of actual experience to expected experience, and the calculation of the actual-to-expected ratio. The actual-to-expected ratio gives a measure of how closely the assumption predicted what actually happened. If the actual-to-expected ratio is greater than 1.0, then the actuarial assumption under-predicted; if the actual-to-expected ratio is less than 1.0, then the assumption over-predicted the number of occurrences. The product of the analysis is a set of recommended actuarial assumptions that produce an actual-to-expected ratio close to 1.0, based on actual experience, unless circumstances warrant a deviation.

The analysis was performed separately for each category of membership expected to have unique patterns of termination experience. The general employees (i.e., those in Classes AA, A, A-3 and A-4) comprise around 75 percent of the membership of SERS. The remaining 25 percent comprise the State Police, members of the General Assembly, members of the judiciary, and other members eligible to retire at ages 50 or 55.

The actual-to-expected ratios for our general employee analyses (including members of Classes AA, A, A-3 and A-4) are shown graphically below in Graph I-1.



Demographic Experience Observations and Assumption Recommendations

In general, and as indicated in Graph I-1, the experience was close to expected for 4 of the 8 studies we undertook relating to the general employee and annuitant populations. That is, actual to expected ratios for both males and females were generally in the range of 90% to 110% for the following studies:

- Superannuation retirement,
- Early retirement after less than 15 years of service,
- Active member mortality, and
- Non-disabled annuitant mortality.

For the remaining 4 studies, the experience deviated more from our expectations, as follows:

- We observed only about 85% as many female early retirements after 15 or more years of service as were expected,
- We observed only about 70% as many disability retirements as were expected,
- In-service deaths (i.e., active employee mortality) were at about 80% of expected levels,
- The number of employee withdrawals (turnover) ran about 13% more than expected for females, and
- The number of disabled mortality deaths ran about 14% more than expected for males.

Before summarizing Korn Ferry's demographic assumption change recommendations, it is important that we explain how (i) Class A-3 and Class A-4 general employees (all of whom were hired after 2010) and (ii) Class A-5 and Class A-6 general employees (all of whom were hired after 2018) were handled in our demographic experience studies:

Handling of Class A-3 and Class A-4 General Employees

- Since these employees are subject to the same rates of disability, mortality and separation from service due to withdrawal (turnover prior to eligibility for retirement) as the Class AA and Class A general employees, their experience was included in our studies of these three active employee assumptions.
- The retirement benefit provisions (for both superannuation and early retirement) applicable to these employees differ from those applicable to Class AA and Class A general employees, and different superannuation and early retirement rates apply. We included the Class A-3 and A-4 retirement experience in our retirement studies; however, with few having reached retirement eligibility, they had a relatively small impact on the study results.
- Korn Ferry once again recommends the continued use of the Class A-3/A-4 retirement rates established during our 2011 experience study with adjustments where available data showed adjustments were warranted; therefore, Tables A-20 and A-21 include adjustments. The Class A-3/A-4 retirement experience will continue to be segregated and analyzed in future experience studies; when there is sufficient retirement experience, these assumptions will be updated more broadly.

Handling of Class A-5 and Class A-6 General Employees

- The study period now includes 5 years of data for Classes A-5 and A-6.
- Since the retirement benefit provisions (for both superannuation and early retirement) applicable to these employees differ from those applicable to Class AA, Class A, Class A-3

and Class A-4 general employees, different superannuation and early retirement rates apply; for purposes of Korn Ferry's December 31, 2019 actuarial valuation, we created and used Class A-5/A-6 retirement rates, which (similar to the Class A-3/A-4 rates discussed above) were based upon our past experience with SERS and our professional judgment.

- Minor adjustments were made to these assumptions-based modifications made to the A-3/A-4 tables.
- Korn Ferry recommends the use of the Class A-5/A-6 retirement rates that reflect the adjustments made for A-3/A-4 experience, as included in Tables A-22 and A-23, in future SERS valuations. As more actual Class A-5/A-6 retirement experience occurs, these assumptions will be updated.

Korn Ferry is recommending the following changes to SERS' demographic assumptions:

- With respect to the assumptions applicable to all active employees:
  - No change to mortality rates for both males and females (See Table A-2)
  - Decreases to disability retirement rates for both males and females (See Table A-3)

- With respect to the assumptions applicable to Class AA and Class A general employees:
  - Decreases or unchanged superannuation rates for males and females except at age 60; increases in the superannuation rates for both males and females at age 60 (See Table A-4)
  - For both males and females with 15 or more years of service, decreases (net) to the early retirement rates (See Table A-5)
  - For both males and females with fewer than 15 years of service, decreases (net) to the early retirement rates (See Table A-6)
  - With respect to not only Classes AA and A, but also Classes A-3, A-4, A-5 and A-6 (but not applicable to special benefit classes), for both males and females, increases to the employee withdrawal rates applicable to most age and service durations (See Table A-7)

- With respect to the assumptions applicable to annuitants and survivors, adoption of new base mortality tables developed from the Society of Actuaries' Pub-2016 study of public sector retirement systems and the Society of Actuaries' most recent forecast of future (generational) mortality improvements, as follows:
  - <u>Male Non-Disabled:</u> PubG-2016 Male Retiree Mortality Table (See Table A-8), with post-2016 mortality improvement based on Scale MP-2021 for Males
  - <u>Female Non-Disabled:</u> PubG-2016 Female Retiree Mortality Table, set forward 1 year (See Table A-8), with post-2016 mortality improvement based on Scale MP-2021 for Females
  - <u>Male Disabled:</u> PubG-2016 Male Disabled Retiree Mortality Table, set forward 4 years (See Table A-9), with post-2016 mortality improvement based on Scale MP-2021 for Males
  - <u>Female Disabled:</u> PubG-2016 Female Disabled Retiree Mortality Table, set forward 3 years (See Table A-9), with post-2016 mortality improvement based on Scale MP-2021 for Females

Korn Ferry also studied the 2020-2024 demographic experience of employees in special benefit classes, leading to the following additional demographic assumption recommendations:

- With respect to the superannuation rates applicable to active State Police, both males and females, decreases (net) to the superannuation rates at service levels greater than 19 years (See Table A-10)

- With respect to the superannuation rates applicable to active Hazardous Duty Employees other than State Police, both males and females, increases (net) to the superannuation rates (See Table A-11)

- With respect to other assumptions applicable to active State Police and other Hazardous Duty Employees, both males and females:
    - Increases (net) to the early retirement rates (See Table A-12)
    - Increases (net) to the withdrawal rates (See Table A-13)

- With respect to the assumptions applicable to active Legislators, both males and females:
    - Increases (net) to the superannuation rates (See Table A-14)
    - Decreases (net) to the early retirement rates (See Table A-15)
    - Decreases (net) to the withdrawal rates (See Table A-16)

- With respect to the assumptions applicable to active Judicial Officers, both males and females:
    - Decreases (net) to the superannuation rates (See Table A-17)
    - Decrease (net) to the early retirement rates (See Table A-18)
    - Increases (net) to the withdrawal rates (See Table A-19)

For the specific age-related or service-related assumption changes we are recommending, as listed above, generally including a comparison versus the current assumptions, see the tables referenced above in the Appendix to this report. For a table of contents listing all the rate tables included in the Appendix, see the first page of the Appendix.

II. Background

The specific objective of this actuarial investigation is the development of the following assumptions as to the expected experience of the System:

- the investment return of the fund, including the underlying inflation rate;
- the rates of salary increase among active members;
- the rates of mortality among active members and annuitants;
- the rates of disability among active members;
- the rates of superannuation retirement among active members;
- the rates of separation for other reasons among active members.

The analysis was performed separately for each category of membership expected to have unique patterns of termination experience:

- Class AA and Class A general employees eligible for full benefits at age 60 or with 35 years of service;
- State Police;
- other hazardous duty employees eligible to retire at age 50;
- members of the General Assembly;
- members of the judiciary.

See page 5 for an explanation as to how Korn Ferry handled the 2020 to 2024 experience of Class A-3 and Class A-4 general employees for purposes of this actuarial investigation.

<u>Age and Service Requirements for Superannuation (full formula benefits)</u>

Class AA & Class A	
General Conditions	Age 60 with three years of service; or 35 or more years of credited service, regardless of age.
Legislators and certain enforcement officers	Age 50 with three years of service.
Park Rangers & Capitol Police	Age 50 with 20 years of Park Ranger or Capitol Police service as a Park Ranger or a Capitol Police Officer.
State Police	Age 50. State Police are eligible for special unreduced benefits after 20 years of service, regardless of age; however, age 50 remains their superannuation age.
Other Hazardous Duty	Age 50 with three years of service.
Class D-4 Legislators	Age 50 with three years of service.
Class E-1 & Class E-2 Judges	Age 60 with three years of service; or 35 or more years of credited service, regardless of age.

III. Analysis of Economic Experience and Recommended Economic Assumptions

The most important set of rates in the valuation is the set of economic assumptions that include the prediction of future rates of investment return and general salary increases. The assumed rates of investment return and general salary increases are nominal rates and are therefore developed from an assessment of the underlying rate of inflation.

Both the investment return and salary growth affect the valuation results. For the 2024 valuation the investment return rate was unchanged at 6.875% and there was also no change made to the salary growth rate. Changes in the investment return assumption affect all liabilities, whereas changes in the salary scale only affect liabilities for current employees. If the salary increases are greater than expected, the benefits will grow in direct proportion because they are based on the final average salary. Conversely, a decrease in investment earnings will directly increase the employer contributions needed to pay the benefits. For SERS, an equal change in the two assumptions will change the normal cost and actuarial liabilities. For instance, decreasing both the investment return and salary growth assumptions by the same 0.5 percent will increase both the normal cost and the unfunded accrued liability.

The current assumptions and rates in effect over prior actuarial valuations are shown in Table III-1. The assumed general salary growth does not include individual career salary increases, due to promotions and longevity. These increases are covered in a later section. The real rate of investment return and the real rate of salary growth are derived by dividing the nominal rates by the rate of inflation. (For example, the current real investment return is [1.06875 / 1.0250] – 1.0, which is approximately 4.3%).

Table III-1
Current vs. Prior Economic Assumptions

	Annual Inflation	Investment Return		Salary Growth	
		Nominal	Real[2]	Nominal	Real
Recommended	2.50%	6.875%	4.3%	2.8%	0.3%
Current 2023 & 2024	2.50%	6.875%	4.3%	2.8%	0.3%
Prior 2021 & 2022	2.50%	7.00%	4.4%	2.8%	0.3%
Prior 2019 & 2020	2.60%	7.125%	4.4%	2.9%	0.3%

Table III-2 below shows the rate of inflation, the nominal and real investment return based on the market value of assets and the nominal and real salary growth for the past twenty years. The rate of inflation is based upon the Consumer Price Index for all Urban Consumers (CPI-U), the U.S. City Average. The annual rate of inflation is calculated as the change in the index from December of the previous year to December of the current year. For example, the CPI-U for December of 2023 was

[2] The real investment return and real salary growth rate are determined using the formula (1+real) = (1+nominal)/(1+inflation). The rates shown are annual rates.

306.746 and the CPI-U for December of 2024 was 315.605, which resulted in an annual inflation for 2024 of 2.9 percent [(315.605/306.746) – 1 = 2.9%].

Table III-2 Annual Rates of Growth					
Year	**Inflation**	**Investment Return**		**Salary Growth**	
		Nominal	**Real**	**Nominal**	**Real**
2005	3.4	14.5	10.7	3.0	(0.4)
2006	2.5	16.4	13.6	3.5	1.0
2007	4.1	17.2	12.6	2.8	(1.2)
2008	0.1	(28.7)	(28.8)	3.0	2.9
2009	2.7	9.1	6.2	3.0	0.3
2010	1.5	11.9	10.2	3.0	1.5
2011	3.0	2.7	(0.3)	3.0	0.0
2012	1.7	12.0	10.1	1.0	(0.7)
2013	1.5	13.6	11.9	2.8	1.3
2014	0.8	6.4	5.6	3.5	2.7
2015	0.7	0.4	(0.3)	3.4	2.7
2016	2.1	6.5	4.3	1.8	(0.3)
2017	2.1	15.1	12.7	4.7	2.5
2018	1.9	(4.6)	(6.4)	5.3	3.3
2019	2.3	18.8	16.1	4.8	2.4
2020	1.4	11.1	9.6	4.9	3.5
2021	7.0	17.2	9.5	3.7	(3.1)
2022	6.5	(12.1)	(17.5)	4.1	(2.3)
2023	3.4	12.2	8.5	4.1	0.7
2024	2.9	9.8	6.7	4.8	1.8
Averages					
2020-2024 (5 years)	**4.2**	**7.1**	**2.8**	**4.3**	**0.1**
2015-2024 (10 years)	**3.0**	**7.0**	**3.9**	**4.2**	**1.1**
2010-2024 (15 years)	**2.6**	**7.7**	**5.0**	**3.7**	**1.0**
2005-2024 (20 years)	**2.6**	**6.8**	**4.1**	**3.5**	**0.9**

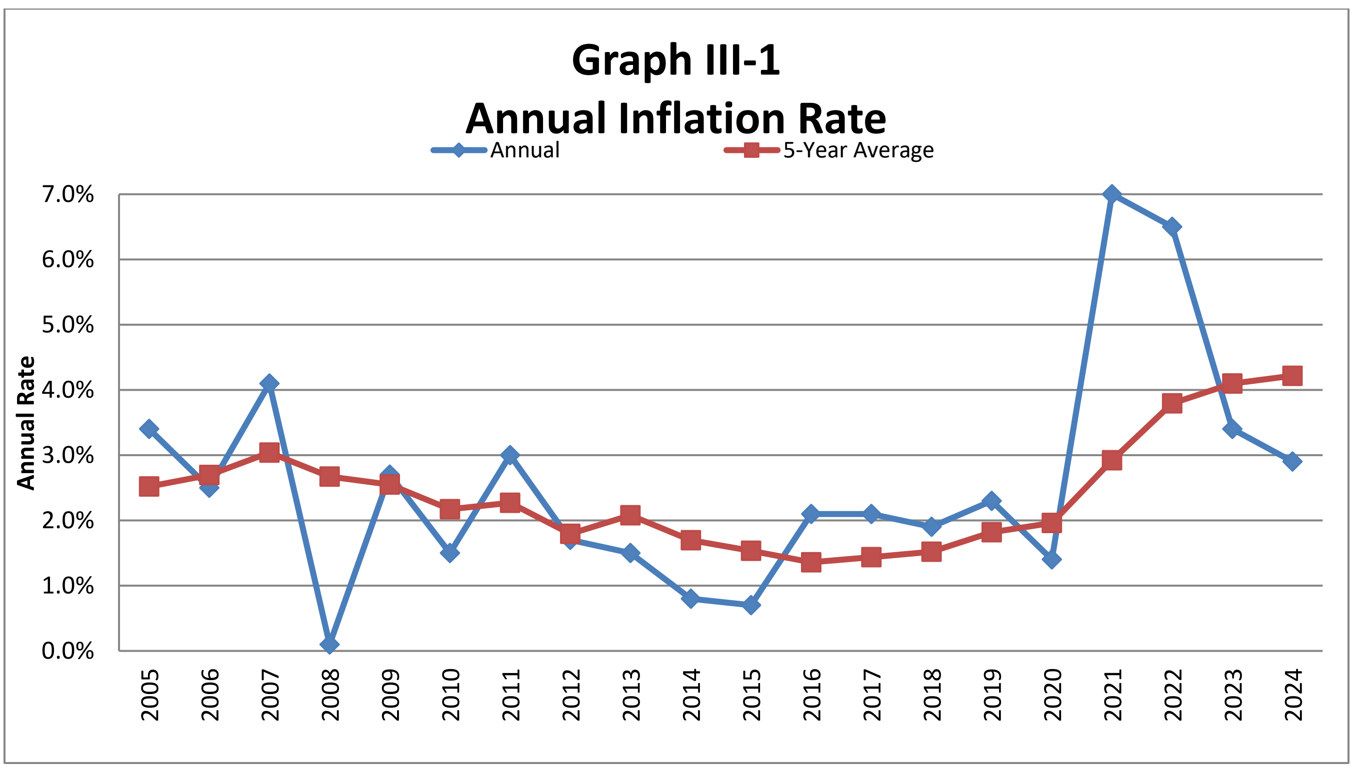
Inflation

While inflation does not directly affect SERS liabilities or assets (as it would if automatic COLAs applied under SERS), it is an important consideration in our review of both the investment return and general salary increase assumptions. There had been a gradual decline in inflation in the United States through 2020, followed by spikes in 2021 and 2022. While 2023 and 2024 are still higher than the recent history before 2021, there is a leveling off, illustrated best by the rolling five-year average inflation rate (the red line) in the graph at the bottom of this page. As well, the graph indicates that, over the past 20 years, inflation in the U.S. has been relatively stable, apart from the years 2008, 2021 and 2022.

SERS investment consultant, RVK, included, among their Capital Market Assumptions, a U.S. annual inflation assumption of 2.50 percent. The Social Security Administration, for purposes of cost projections included in their most recent (2025) annual Trustees' Report (based upon their "intermediate assumptions"), projects future annual inflation will be at a rate of 2.4 percent. This has remained unchanged back to 2020.

We believe, based upon historical inflation rates (as shown in Table III-2) and our current expectations for the future (giving significant credence to the inflation assumption change included in the 2025 Social Security Trustees Report), that it is appropriate to maintain the current SERS annual inflation assumption at 2.50 percent.

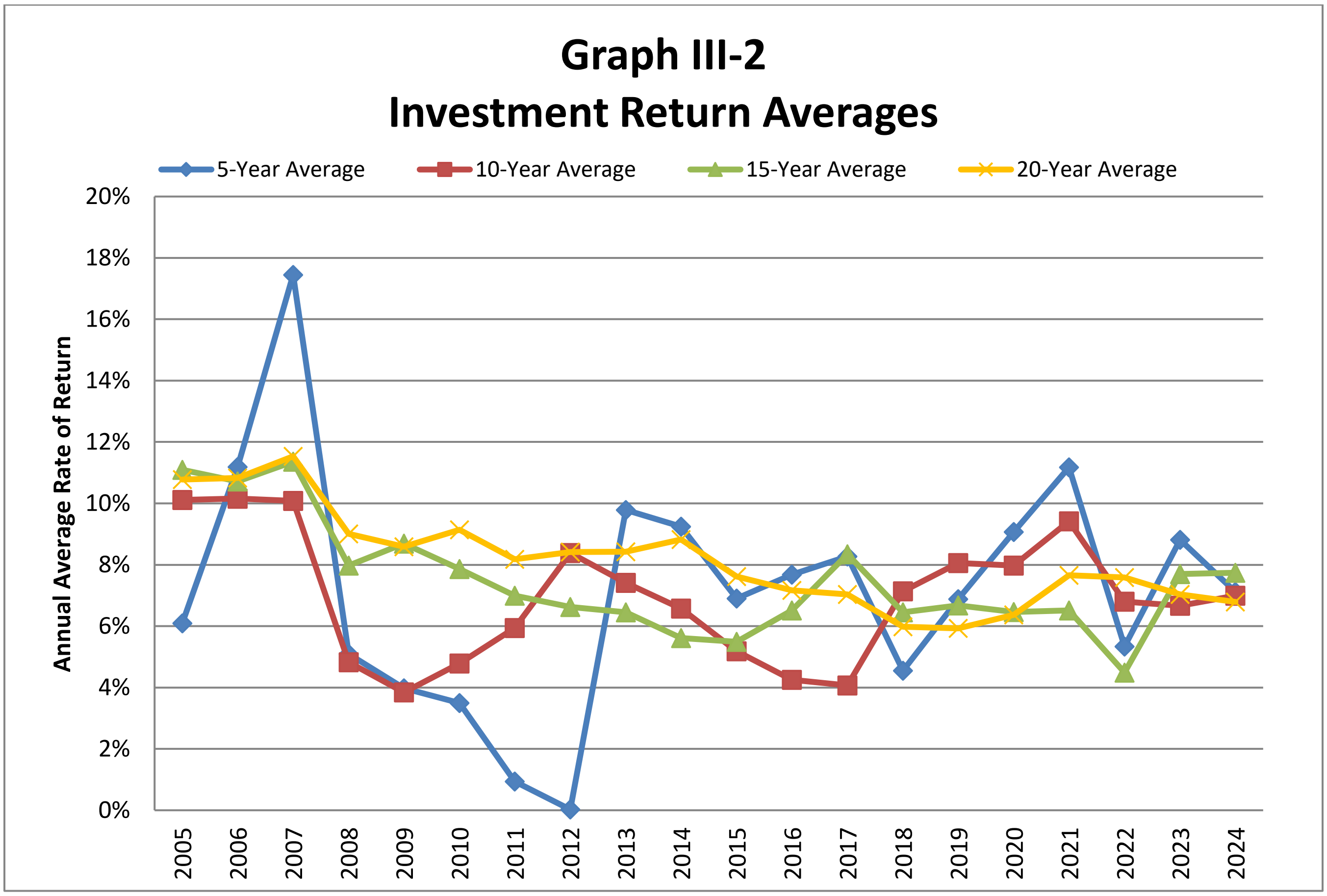
As illustrated below in Graph III-1, while the annual inflation rate has ranged from a low of 0.1 percent to a high of 7.0 percent over the past 20 years, the rolling 5-year average has ranged only between 1.4 percent and 4.2 percent.



Investment Return

As shown in Table III-2, the 20-year, 15-year, 10-year and 5-year average annual rates of return were 6.8%, 7.7%, 7.0% and 7.1%, respectively. Only the 20-year average was materially affected by the severe market decline of 2008.

The graph below shows that, while the annual investment return has ranged from a low in 2008 of minus 28.7 percent to a high in 2019 of 18.8 percent (as shown in Table III-2), the rolling 20-year average investment returns have ranged between 5.9 percent and 11.5 percent over the past twenty years.



It is important (and a widely-recognized best practice in pension funding) for the system actuary and general investment consultant to work as a team on an ongoing basis in connection with the annual determination of an appropriate investment return assumption for the actuarial valuation. Korn Ferry's discussions and collaboration with RVK during 2025 included their preparation and presentation to the SERS Board of their future expectations. While the probability of achieving or exceeding a 6.875% return assumption is below 50% on a geometric basis, RVK and Korn Ferry were both comfortable with either a 6.875% or a 6.75% investment return assumption during the presentation. With respect to the overall annual investment return assumption and the underlying assumed real return, RVK clearly communicated their professional comfort with a 6.875% overall return assumption and the 4.3% real return assumption, thereby supporting the appropriateness of Korn Ferry's current economic assumptions.

Investment Return Assumptions Used by Other Large Public Plans

Another important factor to keep in mind as we consider the SERS investment return assumption is the range of investment return assumptions being used in actuarial valuations of other large public pension systems in the U.S. (most of which are state-wide retirement systems like SERS). The table below shows the distribution of annual investment return assumptions in use over time (from February 2018 to April 2025) by around 130 plans in the Public Fund Survey conducted by the National Association of State Retirement Administrators (NASRA). In each of the columns of Table III-3, the number that includes SERS is highlighted in yellow. Note that the number of plans with assumed returns of 7.00 percent or lower has increased from 30 of 129 plans (23 percent of the total) in early 2018 to 97 of 131 plans (74 percent of the total) as of April 2025. As of April 2025, the median return assumption was 7 percent, which is slightly above the 6.875% return assumption in use by SERS.

Table III-3
Number of Retirement Systems

Assumed Return	Feb 2018	Feb 2019	Jun 2020	May 2021	May 2022	May 2023	April 2024	April 2025
>8.00%	1	0	0	0	0	0	0	0
7.76-8.00%	11	6	3	2	0	0	0	0
7.51%-7.75%	24	14	8	6	2	1	0	0
7.26%-7.50%	37	42	40	38	22	13	9	9
7.01%-7.25%	26	23	24	19	20	24	22	25
7.00%	18	28	32	37	46	47	52	47
6.50%-6.99%	10	14	21	27	33	34	37	40
< 6.50%	2	2	2	2	8	12	11	10
Total Systems	**129**	**129**	**130**	**131**	**131**	**131**	**131**	**131**

Salary Experience

As the retirement benefit that SERS members receive is a final average salary-based annuity, the salary increase assumption is a key valuation assumption. There are two components to the salary increase assumption: a general salary increase assumption that applies to all employees at all ages and points in their career and a career salary increase assumption. The general salary increase would be the expected increase for a member remaining in the same job, whereas the career salary increase reflects pay increases due to promotions and longevity.

General Salary Increase Assumption

The general salary increase assumption is the rate by which salaries are expected to increase each year. The assumption consists of an assumed inflation rate and an assumed real salary growth rate. The current assumptions are an assumed inflation rate of 2.50 percent and a real salary growth rate of 0.3 percent for a total of 2.80 percent. We recommend keeping the current general salary increase assumption at 2.80 percent.

Both the current and the recommended economic assumptions are shown below in Table III-3.

Table III-3
Current & Recommended Economic Assumptions

	Annual Inflation	Investment Return		Salary Growth	
		Nominal	Real	Nominal	Real
Recommended	2.50%	6.875%	4.3%	2.80%	0.3%
Current - 2024	2.50%	6.875%	4.3%	2.80%	0.3%

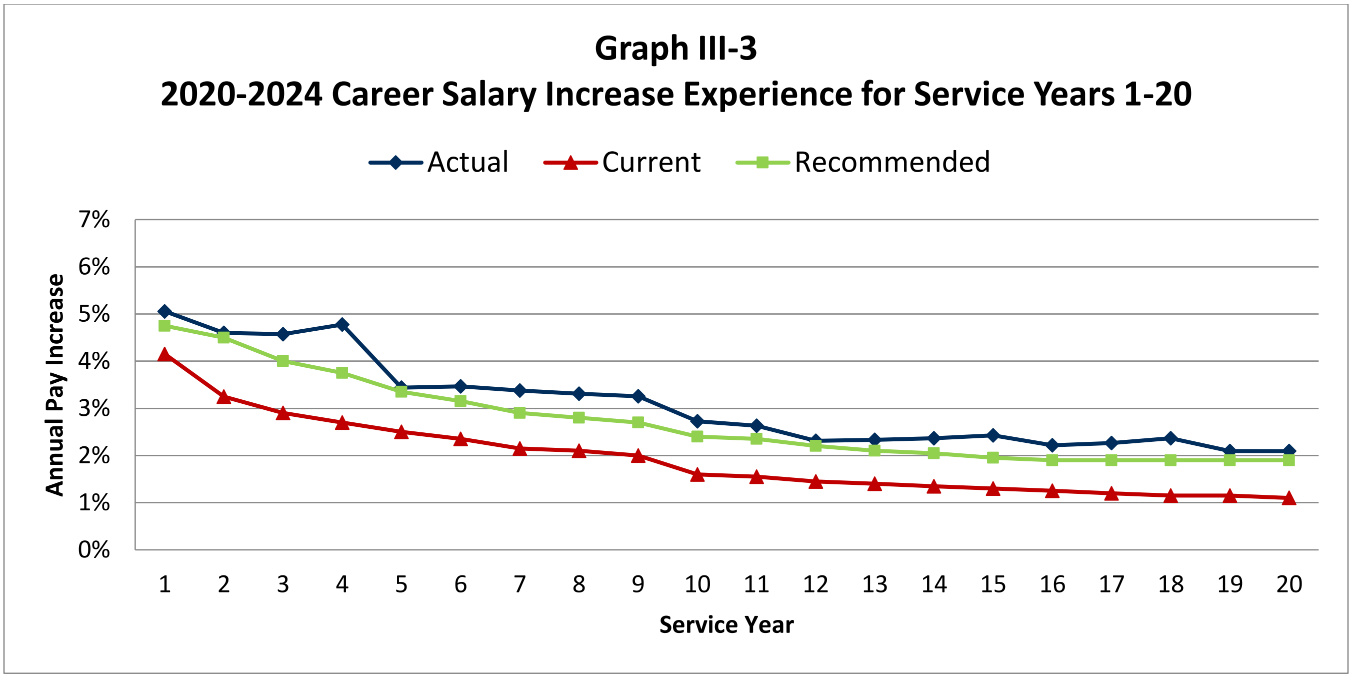
Career Salary Increase Assumption

For the experience analysis, we reviewed individual pay for all members who were active in any consecutive pair of years from 2020 to 2024. As we always do when performing our actuarial investigation of the SERS salary increase experience, we considered any unusual events that may have occurred during the 2020-2024 study period that could have distorted salary increase levels for all or any significant portion of the population under study. Having identified no such unusual events, we concluded that the salary increase data could be used in aggregate without adjustment.

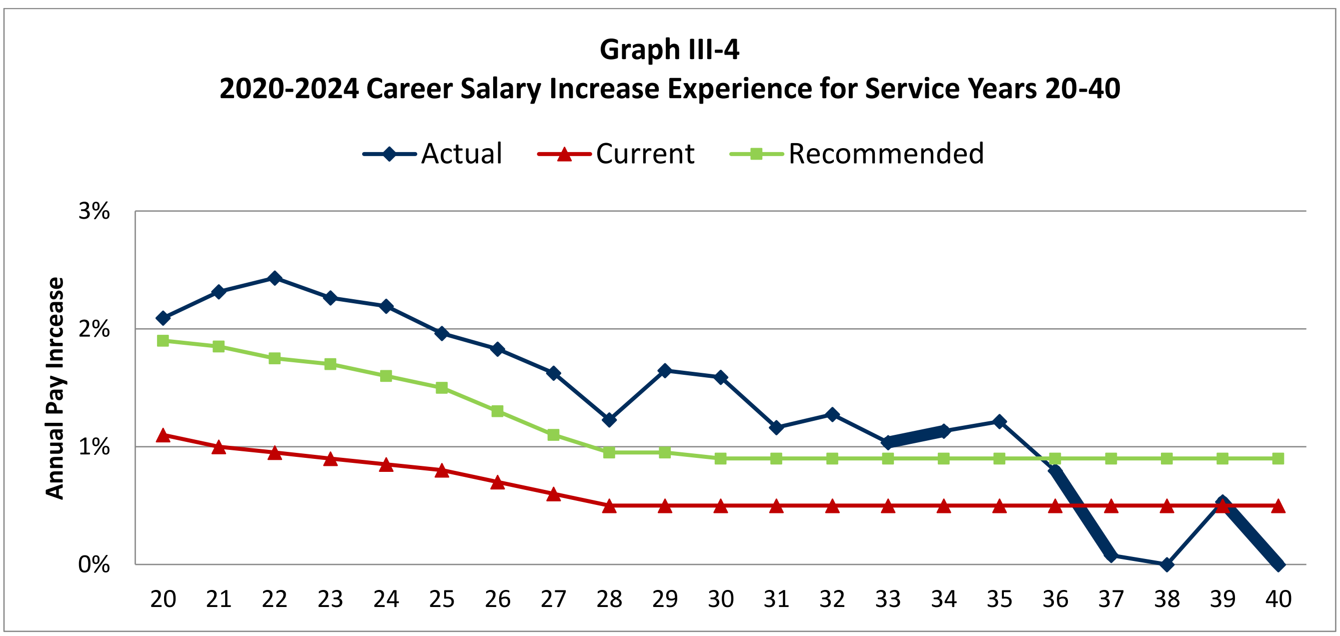
Since the actuarial valuation assumes that overall future salary growth will be the total of (i) assumed increases in the general salary schedule (across-the-board increases) plus (ii) assumed career salary growth (via promotion and longevity increases, and therefore varying by a member's length of service), our study of salary increase experience examined the pattern of actual 2020 to 2024 career salary increases, by length of service.

Graph III-3 shows the career salary increase experience during the experience period for the verified records for employees in their first 20 years of service and Graph III-4 shows the experience for employees with 20 to 40 years of service.

Graph III-3 below shows the pattern of higher increases in the first 20 years of employment with a general range of 1 to 2 percent higher during the period.



Graph III-4 on the next page shows that the pattern of increases for employees with more than 20 years of service also runs higher than expected with actual increases generally running around 0.5 to 1.5 percent higher than expected at most durations from 20 to 40.



Based upon our career salary increase experience findings, as illustrated in Graphs III-3 and III-4, we recommend lowering the current career salary increase assumptions at all service levels. Our recommended career salary increase rates are shown in Table A-1 in the Appendix. The table shows the actual 2020-2024 career salary increase experience, the current total salary increase assumptions from general and career increases combined, the recommended total salary increase assumptions, the current career salary increase assumptions, and the recommended career salary increase assumptions.

IV. Analysis of Demographic Experience and Recommended Demographic Assumptions

The terminations from active employment for SERS participants are analyzed by four categories depending on the eligibility for SERS benefits:

- Deaths
- Disabilities
- Superannuation retirements
- Other separations from active employment

The terminations are split by the categories above to calculate the long-term rates to be used for the valuation.

The following sections describe the analysis of the demographic experience and show the results of the actual-to-expected experience analysis. The first section discusses the analysis and results for active Class AA and Class A general employees subject to age 60 superannuation, and the second section discusses the results for employees subject to different retirement provisions. The different eligibility rules for retirement do not affect the probability of death or disability, so these rates are the same for all classes. The final section describes the actual-to-expected analysis for retirees and survivors.

As a result of Act 120, Class A-3 and Class A-4 members (with original hire occurring after 2010) generally have longer requirements for vesting and retirement. Vesting for these classes is 10 years and superannuation is age 65 for most employees (and age 55 for certain categories of service). In the experience study, these members were valued using the vesting and retirement conditions that apply to them. See page 5 for further explanation relating to Korn Ferry's handling of the experience of this portion of the active employee population. It should be noted that the largest impact these members have is in studies involving non-vested separations; they have negligible impact in studies involving early retirement or superannuation. Therefore, the discussion going forward will generally focus on Classes AA and A.

Tables IV-1 through IV-6 below compare the actual terminations that have occurred in the 2020-2024 period to the expected results based on the current set of actuarial demographic assumptions used in the 2024 actuarial valuation. These actuarial demographic assumptions were based on the previous experience study. The actual-to-expected ratio is the actual terminations as a percent of the expected terminations. Total deaths among female employees, for instance, were 238, or approximately 103 percent of the 230 female employee deaths that would have been expected using the current valuation tables.

In general, we are recommending that the assumptions for the valuation for active employees be revised to more closely reflect the actual experience of the study period.

Analysis of Deaths

Members who die while actively employed are eligible for a death benefit. If the member had less than 5 years of credited service, the member's accumulated contributions are returned. If the member was eligible to receive a retirement benefit, an eligible beneficiary or survivor will receive a benefit from SERS.

During the study period, there were 683 active deaths. Based on the current assumptions, we would have expected 642 deaths during the 5-year period. The resulting actual-to-expected ratio was 1.06. The long-term rates for death are calculated separately for males and females. Table IV-1 shows the actual deaths, expected deaths based on the current rates, and expected deaths based on the recommended rates. Mortality of the overall U.S. population is expected to improve so the pandemic likely altered the outcome during the study period.

We propose leaving the active mortality rates unchanged until a full set of experience is available after the pandemic. Unlike post-retirement mortality, higher mortality (more deaths) among active participants generally increases benefit costs. Therefore, the somewhat higher death rates we are recommending are intended to be somewhat conservative.

Table IV-1
Employees Leaving Active Employment Because of Death

	Actual Deaths	Expected Deaths	Ratio Actual-to-Expected	Ratio Actual-to-Recommended
	2020-2024	2020-2024	2020-2024	2020-2024
Female Deaths	238	230	103%	103%
Male Deaths	445	412	108%	108%
Total Deaths	683	642	106%	106%

Analysis of Disability Retirements

A member is eligible for disability retirement if the member is unable to perform his or her current job and has at least 5 years of service. A State Police or enforcement officer does not have a minimum service requirement.

The data on terminations included 767 disability retirements. However, 217 of those members were eligible for superannuation retirement based on their age and credited service at termination. Since there is no difference in benefit, we combined the disabled and non-disabled members who retire after superannuation into the superannuation rates. Therefore, the disability rates are based on the 550 members who became disabled before superannuation age.

The total number of disability retirement terminations included in this analysis was 550. We would have expected 826 disability retirements during the same period, based on the current assumptions. The actual disabilities were 33 percent fewer than expected. We recommend disability retirement rates that are closer to the actual experience of the disability retirements calculated separately for males and females. Table IV-2 shows the number of disability retirements, the expected disability retirements based on the current assumptions, the ratio of actual to expected based on the current assumptions, and the ratio based on the recommended rates.

Table IV-2 Employees Leaving Active Employment for Disability Retirement				
	Actual Disability Retirements	Expected Disability Retirements	Ratio Actual-to-Expected	Ratio Actual-to-Recommended
	2020-2024	2020-2024	2020-2024	2020-2024
Female Disabilities	278	464	60%	86%
Male Disabilities	272	362	75%	89%
Total Disabilities	550	826	67%	89%

Analysis of Superannuation Retirements - Class AA & Class A General Employees

Class AA and Class A general employees can retire and receive full formula benefits after attaining superannuation age. Superannuation age is defined as age 60 with three years of service. Members of Class AA and Class A with 35 or more years of credited service are entitled to full formula benefits regardless of age. As mentioned under the disability retirement analysis, members who terminated on a disability retirement, but were eligible for unreduced benefits at the time of disability were treated as superannuation retirements and included in that analysis.

Table IV-3 below shows the actual superannuation retirements compared to the expected superannuation retirements based on the current assumptions.

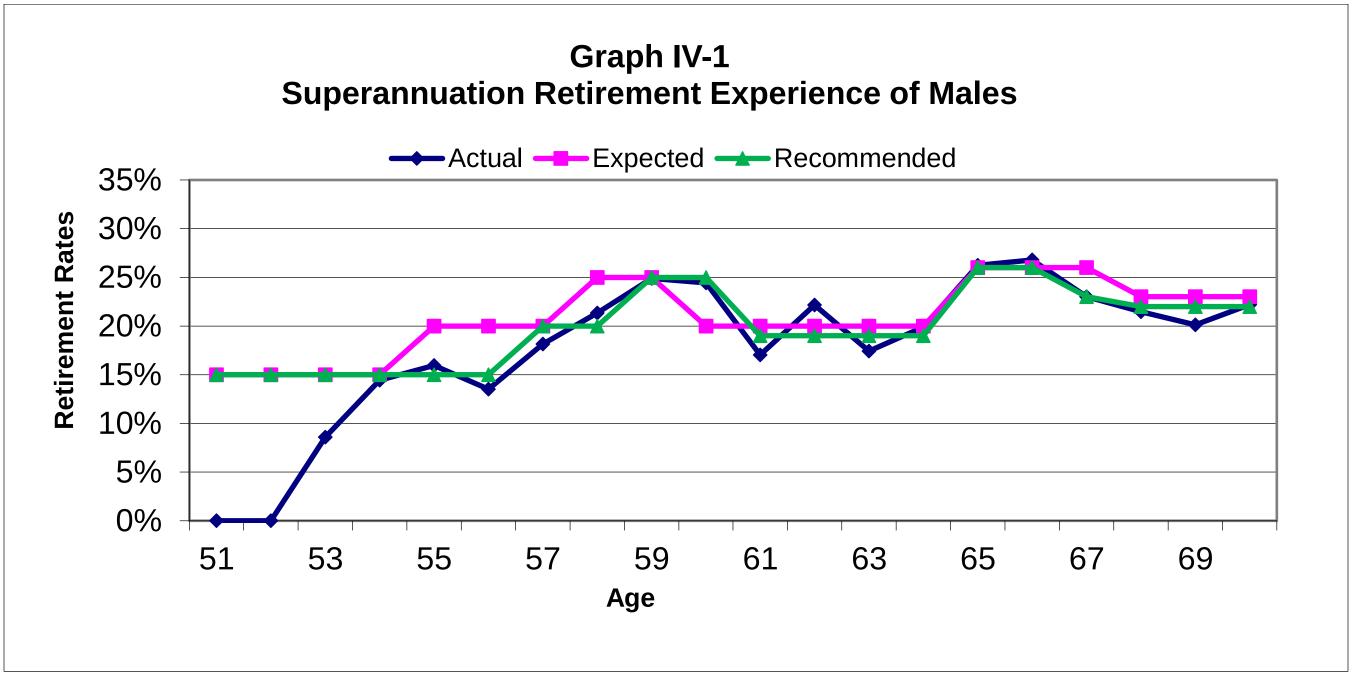
Table IV-3 Employees Leaving Active Employment for Superannuation Retirement				
	Actual Superannuation Retirements	Expected Superannuation Retirements	Ratio Actual-to-Expected	Ratio Actual-to-Recommended
	2020-2024	2020-2024	2020-2024	2020-2024
Female Retirements	5,408	5,645	96%	96%
Male Retirements	5,728	5,986	96%	97%
Total Retirements	11,136	11,631	96%	96%

The overall experience was a lower number of retirements than expected, which implies employees are retiring later. When setting the recommended assumption, we look at the actual to expected excluding ages where there is a 100% chance of retirement. A 100% rate of retirement assumption can skew the expected counts, lowering the ratios. When excluding this group, the ratios of actual-to-recommended increase to 98% for females, 99% for males and 98% in total.

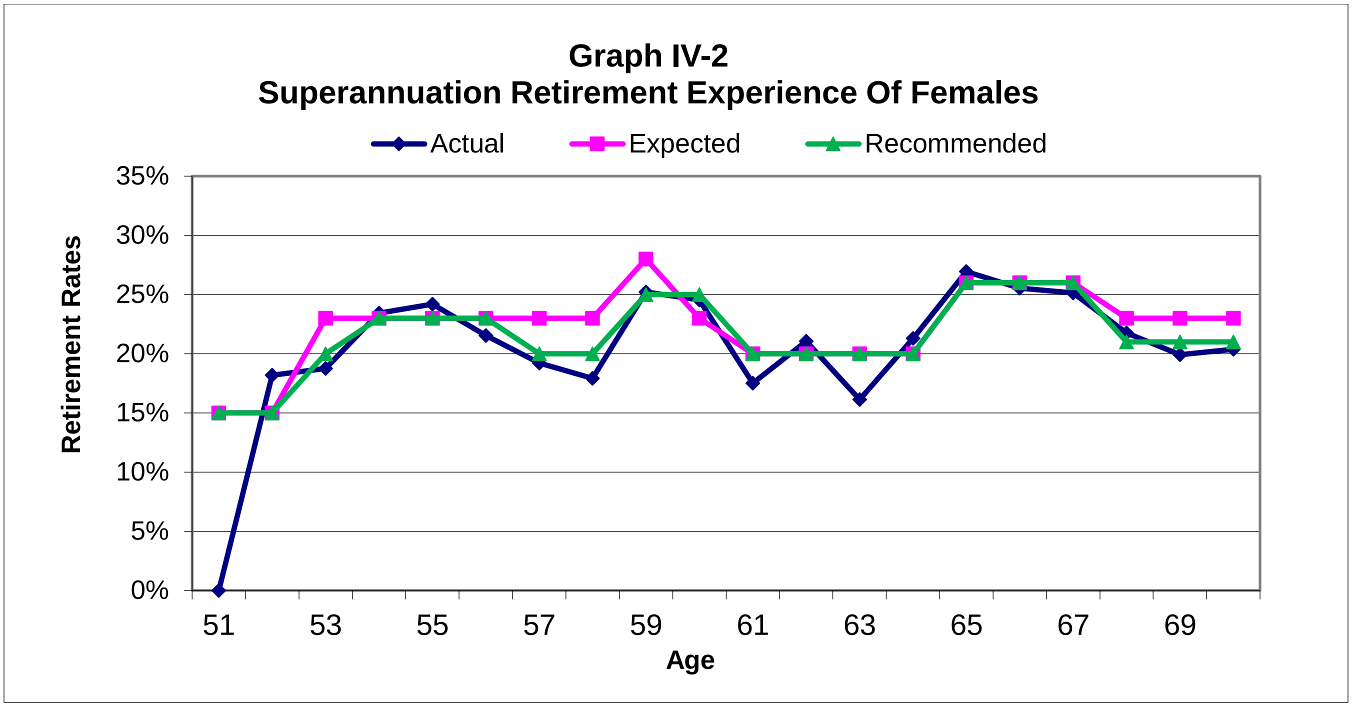
Table IV-4 Ratio of Actual to Expected Superannuation Retirements by Year						
	2020	**2021**	**2022**	**2023**	**2024**	**Total**
Ratio of Actual-to- Expected	0.90	1.06	1.01	0.94	0.88	0.96

Our demographic experience studies that include all Class AA and Class A general employees (other than those in special benefit classes) are performed separately for each year of the five-year study period, to allow us to observe any possible individual year aberrations (e.g., one or more unusual years of experience), which may require some adjustment to our results/recommendations. The superannuation retirement experience shown above in Table IV-4 is an example of a very consistent year to year pattern, one which we would accept without any required adjustment.

The following charts show the retirement experience by age at retirement. The current assumption generally has higher rates around ages 60, 62 and 65 (Superannuation, Social Security Early Retirement Eligibility and Medicare Eligibility respectively).



In comparing the actual experience to what was expected, fewer employees are retiring at, or prior to, the earliest superannuation age and more are deferring retirement until Social Security Normal Retirement Ages (65-66) or beyond. Although our recommended rates continue to anticipate "spikes" around ages 60, 62 and 65, they also attempt to capture the observed experience of members increasingly delaying retirement beyond their initial superannuation eligibility.



Consistent with the Male Superannuation graph (Graph IV-1) on the previous page, in comparing the actual female experience to what was expected, again, fewer employees are retiring at, or prior to, the earliest superannuation age and more are deferring retirement until Social Security Normal Retirement Ages (65-66) or beyond. As with the male recommendations, our recommended rates for females continue to anticipate "spikes" around ages 60, 62 and 65, but they also attempt to capture the observed experience of members increasingly delaying retirement beyond their initial superannuation eligibility.

The recommended rates for Superannuation Retirement for general employees are shown in the Appendix in Table A-4.

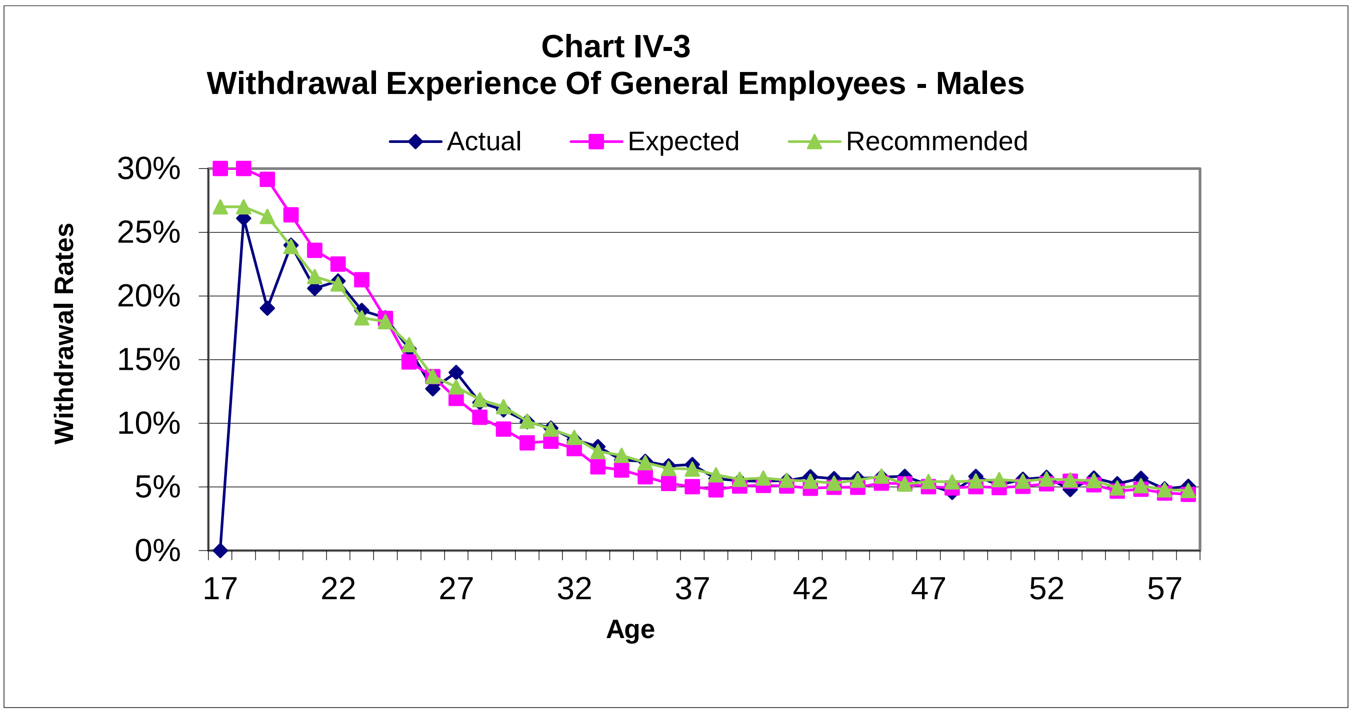
Analysis of Other Separations from Active Employment – Class AA & Class A General Employees

Table IV-5 shows the ratio of actual to expected terminations for reasons other than death, disability or superannuation retirement. These rates would be expected to vary somewhat according to the economic cycle. Employees are more likely to continue with an employer in a tight job market.

Our valuation splits the other separations into two categories. These categories are (1) withdrawals: non-vested separations (i.e., those who do not have five years of service upon separation) and vested separations who defer their benefits until superannuation age, and (2) early retirements: vested separations who take immediate early retirement benefits.

Table IV-5 Other Separations from Active Employment				
	Actual Separations	Expected Separations	Ratio Actual-to-Expected	Ratio Actual-to-Recommended
	2020-2024	2020-2024	2020-2024	2020-2024
Female Separations	11,391	10,616	1.07	1.00
Male Separations	9,984	9,519	1.05	1.00
Total Separations	21,375	20,135	1.06	1.00

The following charts show the withdrawal experience by age. The valuation assumptions include select and ultimate rates that are higher than expected rates of withdrawal in the early years of an employee's career, reducing to an age-specific rate after seven to fifteen years, depending on age at hire. Both charts show withdrawal experience higher than expected at most ages. We recommend changes to all the rates to bring the expected separations closer to the actual observed separations.



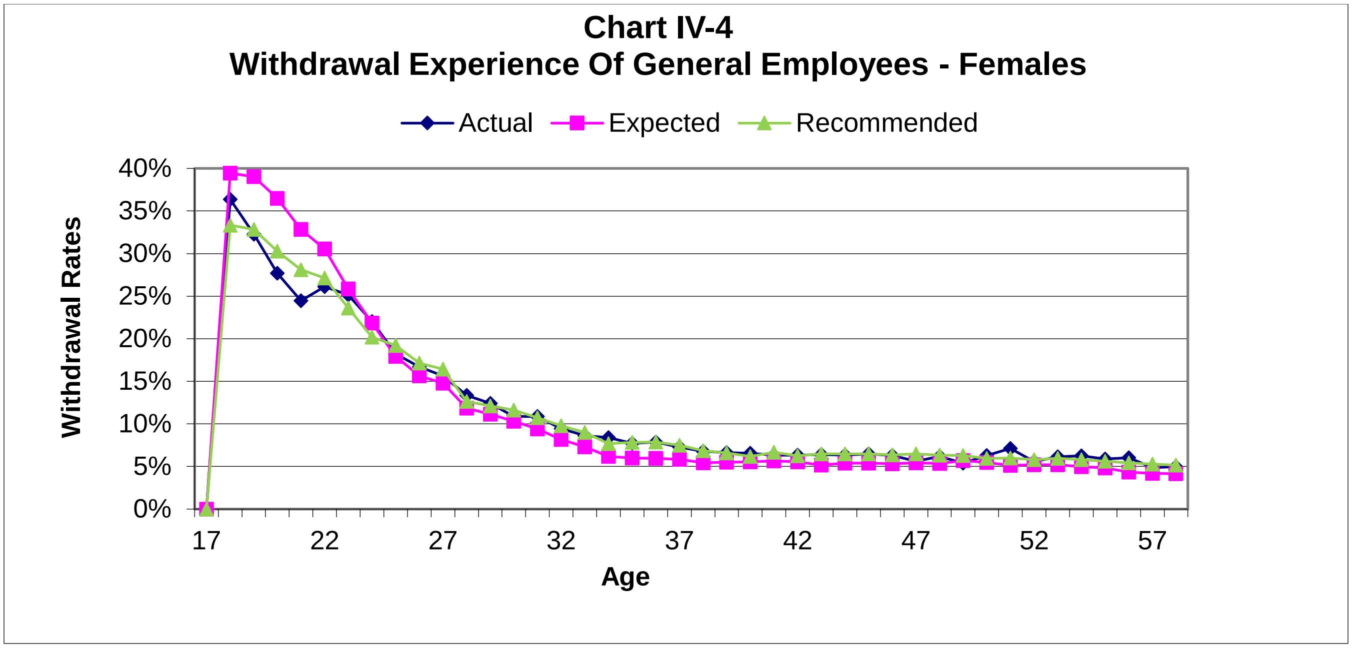


Table IV-6 summarizes the total actual terminations, expected terminations based on the current rates, the actual-to-expected ratio, and the actual-to-expected ratio based upon the recommended rates.

Table IV-6 Total Employees Leaving Active Employment				
	Actual Terminations	**Expected Terminations**	**Ratio Actual-to-Expected**	**Ratio Actual-to-Recommended**
	2020-2024	**2020-2024**	**2020-2024**	**2020-2024**
Deaths	683	642	1.06	1.06
Disabilities	550	826	0.67	0.89
Superannuation Retirements	11,136	11,631	0.96	0.96
Other Separations	21,375	20,135	1.06	1.00
TOTAL	**33,744**	**33,234**	**1.02**	**0.99**

Analysis of Experience for Special Benefit Classes

Members who are in the General Assembly, members of the Judiciary, State Police and other members of law enforcement (categorized as Hazardous Duty employees) have different patterns of termination than Class AA and Class A members eligible to retire at age 60, or with 35 years of service. Some of the differences, such as retirement at ages before 60, are attributable to different retirement eligibility conditions; and other differences, such as terminations without eligibility for a benefit before five years, are attributable to the characteristics of the group. Table IV-7 on the following page compares the actual terminations, expected terminations based on the current rates, the actual-to-expected ratio, and the actual-to-expected ratio based upon the recommended rates for each of the employee groups.

The rates of decrement for special classes tend to fluctuate more than for general employees because there are fewer employees in special classes and, therefore, more of a statistical variation from one study to the next. Of particular note is the distinct pattern of retirements among State Police officers eligible for DiLauro Award benefits. The DiLauro Award creates significant incentives to delay retirement until reaching superannuation eligibility at either 20 or 25 years of service. This enhancement has had a significant impact on State Police superannuation rates in the past. In this study, the observed retirement behaviors among State Police during 2020 to 2024 have led us to recommend:

- Somewhat lower (than current) retirement rates prior to reaching 25 years (so more members getting the higher 75% of final pay), and
- Somewhat higher number of members working beyond 25 years of service.

In general, for all the special classes, we have reviewed the superannuation and other separation rates, and believe that it would be reasonable to set rates that project the same proportion of future retirements as the actual experience in the five-year study period. Therefore, we recommend the adoption of termination assumptions for superannuation and other terminations that approximately reproduce the actual experience of the study period.

Table IV-7
Special Benefit Classes Leaving Active Employment

	Actual Terminations	Expected Terminations	Ratio Actual-to-Expected	Ratio Actual-to-Recommended
	2020-2024	2020-2024	2020-2024	2020-2024
<u>Superannuation</u>				
State Police with More Than 20 Years of Service	831	896.1	0.93	0.99
Other Hazardous Duty	3,210	2,705.2	1.19	1.03
Legislators	53	37.0	1.43	0.97
Members of the Judiciary	253	274.5	0.92	1.00
<u>Early Retirement</u>				
Hazardous Duty and State Police	581	460.3	1.26	1.00
Legislators	1	2.8	0.36	1.00
Members of the Judiciary	16	16.7	0.96	1.00
<u>Withdrawal</u>				
Hazardous Duty and State Police	2,752	1,683.2	1.64	1.00
Legislators	16	16.8	0.95	1.00

Table IV-7 Special Benefit Classes Leaving Active Employment				
	Actual Terminations	Expected Terminations	Ratio Actual-to-Expected	Ratio Actual-to-Recommended
	2020-2024	2020-2024	2020-2024	2020-2024
Members of the Judiciary	**25**	**23.4**	**1.07**	**0.99**

Analysis of Annuitant Mortality – Benefit-Weighted, NOT Headcount-Weighted

As noted in the heading above, the actual and expected numbers of deaths among annuitants (categorized as either [i] non-disabled retirees and survivors or [ii] disabled retirees) ARE NOT shown on the following page in Tables IV-8, IV-9 and IV-10 in the form of headcounts of deaths, as they have been presented in the past. Rather, Korn Ferry has, effective with this 2020-2024 investigation of actuarial experience, modernized our annuitant mortality study methodology to weight deaths in all respects (i.e., for purposes of studying/measuring actual, expected or recommended deaths) by the benefit amount applicable to each individual annuitant included in the study.

It is widely recognized and has long been accepted among actuaries who develop mortality tables for use in pension valuations that pension participants with higher income amounts (salary for employees and benefit amount for nondisabled annuitants) tend to have lower rates of mortality than those with lower amounts. This is borne out in the results developed in the Society of Actuaries' "Pub-2010 Public Retirement Plans Mortality Tables Report", published in January of 2019, which included and compared the statistical results of both benefit-weighted and headcount-weighted mortality studies for the same populations. These mortality tables were updated in 2025 by the Society of Actuaries.

Therefore, the appropriate terminology for describing the experience study results shown in Table IV-8 is as follows: Based upon SERS' current mortality assumptions, during the 5-year study period, $19,914,478 in annual benefits was expected to cease as a result of expected deaths among male annuitants whereas $22,112,994 in annual benefits actually did cease as a result of actual deaths among male annuitants, for an actual-to-expected ratio of 1.11. Table IV-9 shows that, during the 5-year study period, expected benefit-weighted deaths among female annuitants were $12,433,021 compared to actual benefit-weighted deaths of $13,109,076 for an actual-to-expected ratio of 1.05.

Table IV-8 Benefit-Weighted Deaths of Male Annuitants					
	Actual Deaths*	Expected Deaths*	Ratio Actual-to-Expected	Expected* with Recommended Rates	Ratio Actual-to-Recommended
	2020-2024	2020-2024	2020-2024	2020-2024	2020-2024
Non-disabled Retirees and Survivors	20,938,433	18,883,865	1.11	19,405,972	1.08
Disabled Retirees	1,174,560	1,030,613	1.14	948,235	1.24
TOTAL	**22,112,994**	**19,914,478**	**1.11**	**20,354,207**	**1.09**

Table IV-9 Benefit-Weighted Deaths of Female Annuitants					
	Actual Deaths*	Expected Deaths*	Ratio Actual-to-Expected	Expected* with Recommended Rates	Ratio Actual-to-Recommended
	2020-2024	2020-2024	2020-2024	2020-2024	2020-2024
Non-disabled Retirees and Survivors	12,198,566	11,599,159	1.05	11,899,125	1.03
Disabled Retirees	910,511	833,862	1.09	771,316	1.18
TOTAL	**13,109,076**	**12,433,021**	**1.05**	**12,670,441**	**1.03**

Table IV-10 Total Benefit-Weighted Deaths of All (Male + Female) Annuitants					
	Actual Deaths*	Expected Deaths*	Ratio Actual-to-Expected	Expected* with Recommended Rates	Ratio Actual-to-Recommended
	2020-2024	2020-2024	2020-2024	2020-2024	2020-2024
Non-disabled Retirees and Survivors	33,136,999	30,483,024	1.09	31,305,097	1.06
Disabled Retirees	2,085,071	1,864,475	1.12	1,719,550	1.21
TOTAL	**35,222,070**	**32,347,499**	**1.09**	**33,024,648**	**1.07**

*Benefit-Weighted Deaths, therefore amounts in this column are in dollars

The mortality assumption for annuitants is one of the most important factors in the valuation. Mortality has generally improved throughout the last 100 years, so we have set rates in the past that have anticipated this; we have consistently recommended mortality rates that have accounted for future mortality improvement.

As noted earlier, in 2025, the Society of Actuaries (SOA) published the results of its second-ever mortality experience study to focus solely on U.S. public pension plans, entitled “Pub-2016 Public Retirement Plans Mortality Tables Report”. Korn Ferry sees this actuarial experience study as an opportune time to update the annuitant mortality assumptions for SERS, as follows:

- By adopting appropriate Pub-2016 base mortality tables for each of SERS’ four annuitant populations:
    - Male Non-disabled Retirees and Survivors
    - Female Non-disabled Retirees and Survivors
    - Male Disabled Retirees
    - Female Disabled Retirees

  and
- By adopting the SOA’s most recent forecast of future mortality improvements, mortality improvement scale MP-2021, published in October of 2021, as the basis for projecting mortality improvement (increased longevity) for all years following 2016, the base year that

applies for all of the Pub-2016 mortality tables. By applying MP-2021 to the mortality rates in each of the 4 recommended Pub-2016 mortality tables, an automatic ("built-in") annual adjustment will occur on a generational basis (meaning the adjustment considers both the annuitant's year of birth and the calendar year in which the adjustment is being applied). The effect over time on any individual annuitant is to automatically extend his/her life expectancy to reflect future expectations derived from the SOA's mortality improvement research.

Korn Ferry's Specific Annuitant Mortality Assumption Recommendations

Male Non-Disabled Annuitants & Survivors

- Our benefit-weighted actual-to-expected ratio for 2020-2024: 1.11, meaning our valuations have been under-predicting total deaths.
- Out of the three available Pub-2010 tables intended for use with healthy annuitants (one based on retired Teacher experience, one based on retired Public Safety experience and one based on retired General Public Employee experience) the General retiree table was considered most relevant. Since this group is male, we concluded that the PubG-2010 Male Retiree Mortality Table will match up best with this SERS annuitant population.
- Next, we compared the actual 2020-2024 mortality experience for this SERS group (treating all this experience as year 2022 experience, since that was the mid-year of our study) to the mortality results under the PubG-2016 Male Retiree Mortality Table adjusted for mortality improvement to 2022, which produced an actual-to-recommended ratio of 1.04. Adoption of this table, Korn Ferry felt, because it would be expected to slightly under-predict SERS deaths, would be a slightly conservative base table for this group. Thus, we recommend this mortality table as the basis for setting the 2016 mortality rates for Male Non-Disabled Annuitants & Survivors.
- To project mortality improvement for the years after 2016, we recommend use of Scale MP-2021 for Males.

Female Non-Disabled Annuitants & Survivors

- Our benefit-weighted actual-to-expected ratio for 2020-2024: 1.05, meaning our valuations have been under-predicting total deaths.
- Consistent with our conclusion (above) relating to the Male Non-Disabled Annuitants & Survivors, we determined the General retiree table was most relevant. Since this group is female, we concluded that the PubG-2016 Female Retiree Mortality Table will match up best with this SERS annuitant population.
- Next, we compared the actual 2020-2024 mortality experience for this SERS group (treating all this experience as year 2022 experience, since that was the mid-year of our study) to the mortality results under the PubG-2016 Female Retiree Mortality Table adjusted for mortality improvement to 2022, which produced an actual-to-recommended ratio that was too high (well in excess of 1.0); however, setting forward the PubG-2016 Female Retiree Mortality Table by one year produced an actual-to-recommended ratio of 1.02. Adoption of this table, Korn Ferry felt, because it would be expected to slightly under-predict SERS deaths, would be a slightly conservative base table for this group. Thus, we recommend this mortality table, with a one year set forward, as the basis for setting the 2016 mortality rates for Female Non-Disabled Annuitants & Survivors
- To project mortality improvement for the years after 2016, we recommend use of Scale MP-2021 for Females.

Male Disabled Annuitants

- Our benefit-weighted actual-to-expected ratio for 2020-2024: 1.14, meaning our valuations have been under-predicting total deaths.
- Out of the two available Pub-2016 tables intended for use with disabled annuitants (one based on disabled Public Safety retiree experience and the other based on disabled non-Public Safety retiree experience which have the same rates for General Public Employees and Teachers) the non-Public Safety disabled retiree table was considered most relevant. Since this group is male, we concluded that the PubG-2016 Male Disabled Retiree Mortality Table will match up best with this SERS annuitant population.
- Next, we compared the actual 2020-2024 mortality experience for this SERS group (treating all this experience as year 2022 experience, since that was the mid-year of our study) to the mortality results under the PubG-2016 Male Disabled Retiree Mortality Table adjusted for mortality improvement to 2022, which produced an actual-to-recommended ratio that was too high (well in excess of 1.0); however, setting forward the PubG-2016 Male Disabled Retiree Mortality Table by two years produced an actual-to-recommended ratio of 1.03. Adoption of this table, Korn Ferry felt, because it would be expected to slightly under-predict SERS deaths, would be a slightly conservative base table for this group. Thus, we recommend this mortality table, with a two-year set forward, as the basis for setting the 2016 mortality rates for Male Disabled Annuitants.
- To project mortality improvement for the years after 2016, we recommend use of Scale MP-2021 for Males.

Female Disabled Annuitants

- Our benefit-weighted actual-to-expected ratio for 2020-2024: 1.09, meaning our valuations have been under-predicting total deaths.
- Consistent with our conclusion (above) relating to the Male Disabled Annuitants, we determined the non-Public Safety disabled retiree table was most relevant. Since this group is female, we concluded that the PubG-2016 Female Disabled Retiree Mortality Table will match up best with this SERS annuitant population.
- Next, we compared the actual 2020-2024 mortality experience for this SERS group (treating all this experience as year 2022 experience, since that was the mid-year of our study) to the mortality results under the PubG-2016 Female Disabled Retiree Mortality Table adjusted for mortality improvement to 2022, which produced an actual-to-recommended ratio that was too high (well in excess of 1.0); however, setting forward the PubG-2016 Female Disabled Retiree Mortality Table by two years produced an actual-to-recommended ratio of 1.06. Adoption of this table, Korn Ferry felt, because it would be expected to under-predict SERS deaths, would be a slightly conservative base table for this group. Thus, we recommend this mortality table, with a two-year set forward, as the basis for setting the 2016 mortality rates for Female Disabled Annuitants.
- To project mortality improvement for the years after 2016, we recommend use of Scale MP-2021 for Females.

When setting the new mortality assumptions, we looked at the actual-to-expected ratios for the entire study period and with the removal of years materially impacted by the pandemic. While the rates appear to have excess improvements built in, we believe they reflect an appropriate estimate of where base mortality and improvement trends are headed in the future.

Mortality Assumptions Underlying Actuarial Equivalence

Mortality tables are also used to establish the early retirement and other actuarial equivalence factors used to determine benefits payable to retirees who make optional elections. The two sets of mortality assumptions, those used for the valuation and those used for the actuarial equivalence factors, should be kept in step over the long run to avoid any significant cumulative gains or losses that could result from the exercise of optional elections at retirement.

However, we continue to feel, as we have communicated in our past actuarial investigation reports, that it is not necessary to change the actuarial equivalence factors every time there is a change in the valuation mortality assumptions. The change in equivalence factors is a very costly and time-consuming process. SERS staff has determined that the State Employees' Retirement Code does not require that the actuarial equivalence factors be changed every time the actuarial assumptions are changed. Therefore, we do not recommend that SERS' current actuarial equivalence factors be changed as a direct consequence of this actuarial experience study; however, this issue is one that Korn Ferry would like to explore further with SERS in the near future, rather than delay addressing it until the time of the next actuarial experience study.

V. Other Experience Analyses

Optional Retirement Elections

The valuation includes a prediction of the number of new retirees who will select each of the options. Prediction of the proportion that will elect Option 4 is particularly important because of the adverse effect on the fund of each such election. Table V-1 compares the current assumptions to the selection by new retirees during the experience period. Option 4, the return of the present value of all or part of the employee contributions, can be selected along with any other available option. The experience study shows a slight decrease in the prevalence of election of an Option 1 form of benefit and a slight increase in the prevalence of Option 2 and 3 elections.

Table V-1
Assumed Elections of Options at Retirement

Election	Current Assumption	Experience	Recommended Assumption
I. Single Life Annuity	33%	31.6%	32%
II. Option 1	41%	35.6%	36%
III. Option 2 or 3 or other percentage survivor	26%	32.8%	32%
IV. Option 1 combined with III	Included in II and III	Included in II and III	Included in II and III
V. Total	100%	100%	100%
VI. Percent of available funds withdrawn under Option 4	70%	68.3%	70%

Korn Ferry's recommended assumptions are shown in the far-right column above. These recommended assumptions are very similar to the current assumptions.

Purchases of Service

Employees can purchase certain past service by agreeing to pay the cost of that service. The most common purchases are for past SERS service and for military service. Before Act 9 in 2001, employees had to agree to pay the cost in a lump sum or in installment payments over no more than three years. Board policy permits payments over as long as six years. Act 9 permitted members to defer payment until retirement. The deferred payments, plus interest, are used to reduce the benefits at retirement.

This experience study included a review of purchases of service by eligible SERS members over the 2020-2024 period. Our study revealed a continued decline in purchases of service since this was last studied. We also determined that this lower level of activity of purchasing service is expected to continue. Therefore, Korn Ferry recommends the adoption of the purchased service assumptions included in the table below, which represent significantly lower levels of service expected to be purchased by eligible members of SERS in the future.

Table V-2 Number of Years Purchased		
Service	Current Assumption	Recommended Assumption
0	0.08	0.04
1	0.06	0.03
2	0.04	0.02
3	0.02	0.01
4+	0.00	0.00

VI. Cost Impact of Recommended Assumptions & Conclusion

On the following page, Korn Ferry (KF) provides estimates of the cost impact of our recommended new actuarial assumptions resulting from this 2020-2024 actuarial experience study. The four columns of liability/cost information, numbered (1) through (3) from left to right, can be described as follows:

(1) Baseline Liabilities/Costs = Actual 12/31/24 Valuation Results
(2) Hypothetical 12/31/24 Liabilities/Costs IF:
All of KF's Demographic and Career Salary Increase Assumptions Were Adopted &
(3) Hypothetical 12/31/24 Liabilities/Costs IF:
All of KF's Demographic and Career Salary Increase Assumptions Were Adopted &
Investment Return Assumption Was Reduced from Current 6.875% to 6.75%

On July 22, 2025, Korn Ferry and RVK co-presented to the SERS Board the assumption change recommendations included in this report, including the cost impact information shown on the following page. The SERS Board maintained the current investment return assumption of 6.875% but adopted all of the demographic recommendations, to become effective with the December 31, 2025 actuarial valuation.

Based upon comparison of the results in Columns (1) and (2), KF estimated that adoption of all our demographic assumption change recommendations would:

- Increase SERS' Unfunded Liability by approximately $0.22 B (an increase of about 1.3%)
- Increase SERS' Total Employer Cost by 0.65% of payroll (an increase of about 2.0%), and
- Decrease SERS' Funded Status from the current 70.3% to approximately 70.0%

Approximate Impact on SERS Liabilities/Costs
Under Alternative Actuarial Valuation Assumptions

		(1)	(2)	(3)
		Actual 12/31/24 Valuation Results	12/31/24 Results Using Recommended Demographic Assumptions AND:	
	Economic Assumptions			
	Investment Return:	6.875%	Current 6.875%	Alternative 6.75%
	Annual Inflation:	2.50%	Current 2.50%	Recommended 2.50%
I.	**Present Value of Benefits:**			
	A) Active and Inactive Participants			
	1) Superannuation and Withdrawal	$ 28,777,205,699	$ 30,020,826,245	$ 30,727,824,255
	2) Disability	838,923,106	651,214,523	666,017,928
	3) Death	823,237,049	869,599,485	880,791,069
	4) Refunds	126,697,493	135,159,041	135,263,304
	5) Special Police and Enforcement Officer Benefits	-	-	-
	6) Subtotal	$ 30,566,063,347	$ 31,676,799,294	$ 32,409,896,556
	B) Annuitants and Beneficiaries	35,484,703,844	35,164,515,101	35,508,487,395
	C) Total	$ 66,050,767,191	$ 66,841,314,395	$ 67,918,383,951
II.	**Present Value of Member and Employer Contributions:**			
	A) Employer Portion of Normal Cost	$ 4,596,473,939	$ 5,097,614,822	$ 5,412,661,477
	B) Member Contributions	4,373,056,758	4,440,068,942	4,483,043,913
	C) Total	$ 8,969,530,697	$ 9,537,683,764	$ 9,895,705,390
III.	**Actuarial Accrued Liability: (I) - (II)**	$ 57,081,236,494	$ 57,303,630,631	$ 58,022,678,561
IV.	**Actuarial Value of Assets**	$ 40,106,952,931	$ 40,106,952,931	$ 40,107,194,795
V.	**Unfunded Liability: (III) - (IV)**	$ 16,974,283,563	$ 17,196,677,700	$ 17,915,483,766
VI.	**Amortization of Unfunded Liability as Percentage of Pay**	24.69%	24.77%	25.30%
VII.	**Employer Normal Cost as Percentage of Pay**	7.65%	8.22%	8.58%
VIII.	**Extra Contribution to Return Act 5 Savings**	0.00%	0.00%	0.00%
IX.	**Total Employer Cost : (VI) + (VII) + (VIII)**	32.34%	32.99%	33.88%
X.	**Employer Cost Increase Vs Actual 12/31/24 Valuation**	0.00%	0.65%	1.54%
XI.	**Funded Status (Actuarial Assets): (IV)/(III)**	70.3%	70.0%	69.1%

VII. Actuarial Certification

This report presents an investigation of the actuarial experience of the State Employees' Retirement System of the Commonwealth of Pennsylvania, covering the period from January 1, 2020 to December 31, 2024.

To the best of our knowledge, this report is complete and accurate, and all recommended assumptions shown in this report are reasonable actuarial assumptions which represent our best estimate of anticipated experience under the plan, determined in conformance with generally accepted actuarial principles.

The actuaries certifying to this investigation are members of the Society of Actuaries or other professional actuarial organizations, and meet the General Qualification Standards of the American Academy of Actuaries for purposes of issuing Statements of Actuarial Opinion.

Respectfully submitted,
Korn Ferry
July 22, 2025

By ______________________________
Craig R. Graby
Member American Academy of Actuaries
Enrolled Actuary No. 23-7319

VIII. Glossary

Actual-to-Expected Ratio – The actual number of members leaving for a specific cause (such as retirement) divided by the number the actuary expected to leave.

Actuarial Assumptions – Predicted probability of future events including economic and demographic assumptions.

ASOP – Actuarial Standard of Practice; ASOPs are promulgated by the Actuarial Standards Board.

Demographic Assumptions – Predictions about the rate at which employees will leave the retirement plan and the rate at which annuitants will die. These include rates of retirement and disability.

Economic Assumptions – Predictions about the future earnings of the retirement fund, salary growth and inflation.

Investment Rate – The expected return on plan assets. This rate is expressed as an annual rate and is a compound rate, meaning that a sum of $10,000 invested for 10 years at 7.50 percent will yield $20,610.

Salary Growth Rate – The expected increase in salary from the current year to the next year. Salary increase rates vary with service, with larger percentage increases expected in the beginning of an employee's career and smaller increases expected in the later years.

Appendix – Recommended Assumptions

The recommended assumptions are shown in detail in the following tables.

Recommended Economic Assumptions					
	Annual Inflation	Investment Return		Salary Growth	
		Nominal	Real[3]	Nominal	Real
Recommended	2.50%	6.875%	4.3%	2.8%	0.3%
Current 2023 & 2024	2.50%	6.875%	4.3%	2.8%	0.3%
Prior 2021 & 2022	2.50%	7.00%	4.4%	2.8%	0.3%
Prior 2019 & 2020	2.60%	7.125%	4.4%	2.9%	0.3%

[3] The real investment return and real salary growth rate are determined using the formula (1+real) = (1+nominal)/(1+inflation). The rates shown are annual rates.

Career Salary Increase Rates

Table A-1 shows the actual salary growth experience (A), current total salary increase assumptions from general and career increases combined (B), recommended total salary increase assumptions (C), the current career salary increase assumptions (D) and the recommended career salary increase assumptions (E).

Table A-1 Development of Recommended Career Salary Increase Assumptions					
Years of Credited Service	Actual Salary Increase	Current Assumed Total Salary Increase	Recommended Total Salary Increase	Current Career Salary Increase	Recommended Career Salary Increase
	(A)	(B)	(C)	(D)	(E)
1	3.21%	6.95%	7.55%	4.15%	4.75%
2	2.74%	6.05%	7.30%	3.25%	4.50%
3	2.61%	5.70%	6.80%	2.90%	4.00%
4	2.46%	5.50%	6.55%	2.70%	3.75%
5	1.97%	5.30%	6.15%	2.50%	3.35%
6	1.51%	5.15%	5.95%	2.35%	3.15%
7	1.63%	4.95%	5.70%	2.15%	2.90%
8	1.75%	4.90%	5.60%	2.10%	2.80%
9	1.44%	4.80%	5.50%	2.00%	2.70%
10	1.09%	4.40%	5.20%	1.60%	2.40%
11	1.20%	4.35%	5.15%	1.55%	2.35%
12	0.94%	4.25%	5.00%	1.45%	2.20%
13	1.05%	4.20%	4.90%	1.40%	2.10%
14	0.75%	4.15%	4.85%	1.35%	2.05%
15	0.82%	4.10%	4.75%	1.30%	1.95%
16	0.72%	4.05%	4.70%	1.25%	1.90%
17	0.79%	4.00%	4.70%	1.20%	1.90%
18	0.79%	3.95%	4.70%	1.15%	1.90%
19	0.54%	3.95%	4.70%	1.15%	1.90%
20	0.57%	3.90%	4.70%	1.10%	1.90%
21	0.76%	3.80%	4.65%	1.00%	1.85%
22	0.83%	3.75%	4.55%	0.95%	1.75%
23	0.58%	3.70%	4.50%	0.90%	1.70%
24	0.64%	3.65%	4.40%	0.85%	1.60%
25	0.31%	3.60%	4.30%	0.80%	1.50%
26	0.37%	3.50%	4.10%	0.70%	1.30%
27	0.11%	3.40%	3.90%	0.60%	1.10%
28	0.15%	3.30%	3.75%	0.50%	0.95%
29	0.16%	3.30%	3.75%	0.50%	0.95%
30	0.00%	3.30%	3.70%	0.50%	0.90%
31	0.20%	3.30%	3.70%	0.50%	0.90%
32	0.27%	3.30%	3.70%	0.50%	0.90%
33	0.00%	3.30%	3.70%	0.50%	0.90%
34	0.00%	3.30%	3.70%	0.50%	0.90%
35	0.39%	3.30%	3.70%	0.50%	0.90%
36	0.00%	3.30%	3.70%	0.50%	0.90%
37	0.00%	3.30%	3.70%	0.50%	0.90%
38	0.28%	3.30%	3.70%	0.50%	0.90%
39	0.00%	3.30%	3.70%	0.50%	0.90%
40	0.00%	3.30%	3.70%	0.50%	0.90%

Table A-2 Mortality Rates for All Active Employees				
	Males		Females	
Age	Current	Recommended	Current	Recommended
17	0.0006	0.0006	0.0001	0.0001
18	0.0006	0.0006	0.0001	0.0001
19	0.0006	0.0006	0.0003	0.0003
20	0.0006	0.0006	0.0003	0.0003
21	0.0006	0.0006	0.0003	0.0003
22	0.0006	0.0006	0.0003	0.0003
23	0.0006	0.0006	0.0003	0.0003
24	0.0006	0.0006	0.0003	0.0003
25	0.0006	0.0006	0.0003	0.0003
26	0.0006	0.0006	0.0003	0.0003
27	0.0006	0.0006	0.0003	0.0003
28	0.0006	0.0006	0.0003	0.0003
29	0.0006	0.0006	0.0003	0.0003
30	0.0007	0.0007	0.0003	0.0003
31	0.0007	0.0007	0.0003	0.0003
32	0.0007	0.0007	0.0003	0.0003
33	0.0007	0.0007	0.0004	0.0004
34	0.0007	0.0007	0.0004	0.0004
35	0.0008	0.0008	0.0004	0.0004
36	0.0008	0.0008	0.0004	0.0004
37	0.0009	0.0009	0.0005	0.0005
38	0.0010	0.0010	0.0005	0.0005
39	0.0011	0.0011	0.0005	0.0005
40	0.0011	0.0011	0.0005	0.0005
41	0.0012	0.0012	0.0005	0.0005
42	0.0013	0.0013	0.0006	0.0006
43	0.0013	0.0013	0.0007	0.0007
44	0.0014	0.0014	0.0008	0.0008
45	0.0014	0.0014	0.0008	0.0008
46	0.0015	0.0015	0.0009	0.0009
47	0.0015	0.0015	0.0010	0.0010
48	0.0017	0.0017	0.0010	0.0010
49	0.0018	0.0018	0.0011	0.0011
50	0.0020	0.0020	0.0011	0.0011
51	0.0021	0.0021	0.0011	0.0011
52	0.0022	0.0022	0.0011	0.0011
53	0.0023	0.0023	0.0011	0.0011
54	0.0024	0.0024	0.0011	0.0011
55	0.0025	0.0025	0.0012	0.0012
56	0.0026	0.0026	0.0013	0.0013
57	0.0027	0.0027	0.0014	0.0014
58	0.0028	0.0028	0.0016	0.0016
59	0.0028	0.0028	0.0017	0.0017
60	0.0029	0.0029	0.0019	0.0019
61	0.0031	0.0031	0.0020	0.0020
62	0.0033	0.0033	0.0022	0.0022
63	0.0035	0.0035	0.0023	0.0023
64	0.0037	0.0037	0.0027	0.0027

Table A-2 Mortality Rates for All Active Employees				
	Males		Females	
Age	Current	Recommended	Current	Recommended
65	0.0041	0.0041	0.0031	0.0031
66	0.0046	0.0046	0.0035	0.0035
67	0.0050	0.0050	0.0039	0.0039
68	0.0057	0.0057	0.0047	0.0047
69	0.0064	0.0064	0.0055	0.0055
70	0.0073	0.0073	0.0062	0.0062
71	0.0082	0.0082	0.0070	0.0070
72	0.0092	0.0092	0.0078	0.0078
73	0.0110	0.0110	0.0086	0.0086
74	0.0133	0.0133	0.0094	0.0094
75	0.0156	0.0156	0.0101	0.0101
76	0.0183	0.0183	0.0109	0.0109
77	0.0220	0.0220	0.0117	0.0117
78	0.0238	0.0238	0.0125	0.0125
79	0.0256	0.0256	0.0133	0.0133
80	0.0275	0.0275	0.0140	0.0140
81	0.0275	0.0275	0.0148	0.0148
82+	0.0275	0.0275	0.0156	0.0156

Table A-3 Disability Retirement Rates for All Active Employees				
Age	Males		Females	
	Current	Recommended	Current	Recommended
23	0.00011	0.00009	0.00020	0.00014
24	0.00011	0.00009	0.00020	0.00014
25	0.00011	0.00009	0.00020	0.00014
26	0.00018	0.00015	0.00022	0.00015
27	0.00018	0.00015	0.00028	0.00020
28	0.00026	0.00022	0.00028	0.00020
29	0.00032	0.00027	0.00039	0.00027
30	0.00032	0.00027	0.00047	0.00033
31	0.00035	0.00030	0.00056	0.00039
32	0.00039	0.00033	0.00061	0.00043
33	0.00042	0.00036	0.00072	0.00050
34	0.00053	0.00045	0.00078	0.00055
35	0.00056	0.00048	0.00081	0.00057
36	0.00060	0.00051	0.00084	0.00059
37	0.00060	0.00051	0.00086	0.00060
38	0.00063	0.00054	0.00109	0.00076
39	0.00067	0.00057	0.00132	0.00092
40	0.00088	0.00075	0.00155	0.00109
41	0.00098	0.00083	0.00178	0.00125
42	0.00125	0.00106	0.00201	0.00141
43	0.00151	0.00128	0.00223	0.00156
44	0.00177	0.00150	0.00232	0.00162
45	0.00204	0.00173	0.00263	0.00184

Table A-3 Disability Retirement Rates for All Active Employees				
Age	Males		Females	
	Current	Recommended	Current	Recommended
46	0.00230	0.00196	0.00293	0.00205
47	0.00256	0.00218	0.00315	0.00221
48	0.00283	0.00241	0.00350	0.00245
49	0.00315	0.00268	0.00376	0.00263
50	0.00332	0.00282	0.00398	0.00279
51	0.00353	0.00300	0.00416	0.00291
52	0.00370	0.00315	0.00438	0.00307
53	0.00402	0.00342	0.00464	0.00325
54	0.00419	0.00356	0.00481	0.00337
55	0.00435	0.00370	0.00503	0.00352
56	0.00446	0.00379	0.00525	0.00368
57	0.00468	0.00398	0.00547	0.00383
58	0.00478	0.00406	0.00569	0.00398
59	0.00500	0.00425	0.00591	0.00414
60	0.00000	0.00000	0.00000	0.00000

Table A-4 Comparison of Current and Recommended Superannuation Retirement Rates for General Employees				
	Males		Females	
Age	Current Superannuation Retirement Rates	Recommended Superannuation Retirement Rates	Current Superannuation Retirement Rates	Recommended Superannuation Retirement Rates
51	0.15	0.15	0.15	0.15
52	0.15	0.15	0.15	0.15
53	0.15	0.15	0.23	0.20
54	0.15	0.15	0.23	0.23
55	0.20	0.15	0.23	0.23
56	0.20	0.15	0.23	0.23
57	0.20	0.20	0.23	0.20
58	0.25	0.20	0.23	0.20
59	0.25	0.25	0.28	0.25
60	0.20	0.25	0.23	0.25
61	0.20	0.19	0.20	0.20
62	0.20	0.19	0.20	0.20
63	0.20	0.19	0.20	0.20
64	0.20	0.19	0.20	0.20
65	0.26	0.26	0.26	0.26
66	0.26	0.26	0.26	0.26
67	0.26	0.23	0.26	0.26
68	0.23	0.22	0.23	0.21
69	0.23	0.22	0.23	0.21
70	0.23	0.22	0.23	0.21
71	0.20	0.20	0.20	0.20
72	0.20	0.20	0.20	0.20
73	0.20	0.20	0.20	0.20
74	0.20	0.20	0.20	0.20

Table A-4
Comparison of Current and Recommended
Superannuation Retirement Rates for General Employees

Age	Males		Females	
	Current Superannuation Retirement Rates	Recommended Superannuation Retirement Rates	Current Superannuation Retirement Rates	Recommended Superannuation Retirement Rates
75	0.20	0.15	0.20	0.15
76	0.20	0.15	0.20	0.15
77	0.20	0.15	0.20	0.15
78	0.20	0.15	0.20	0.25
79	0.20	0.25	0.20	0.25
80	1.00	1.00	1.00	1.00

Table A-5
Early Retirement Rates for Active General Employees
with 15 or more Years of Service

Age	Males		Females	
	Current	Recommended	Current	Recommended
31	0.008	0.008	0.014	0.014
32	0.008	0.009	0.014	0.014
33	0.008	0.009	0.014	0.014
34	0.008	0.009	0.014	0.014
35	0.008	0.009	0.014	0.014
36	0.008	0.009	0.014	0.014
37	0.008	0.009	0.014	0.014
38	0.008	0.009	0.014	0.014
39	0.008	0.009	0.014	0.014
40	0.006	0.007	0.013	0.010
41	0.006	0.007	0.013	0.010
42	0.006	0.007	0.013	0.010
43	0.006	0.007	0.013	0.010
44	0.006	0.007	0.013	0.010
45	0.006	0.007	0.013	0.010
46	0.006	0.007	0.013	0.010
47	0.011	0.012	0.013	0.010
48	0.011	0.012	0.013	0.010
49	0.011	0.012	0.013	0.010
50	0.011	0.012	0.016	0.017
51	0.011	0.012	0.024	0.018
52	0.024	0.017	0.045	0.038
53	0.032	0.022	0.045	0.038
54	0.040	0.028	0.045	0.038
55	0.050	0.040	0.045	0.038
56	0.055	0.050	0.055	0.050
57	0.063	0.060	0.063	0.060
58	0.080	0.072	0.080	0.056
59	0.160	0.168	0.160	0.152
60	0.000	0.000	0.000	0.000

Table A-6 Early Retirement Rates for Active General Employees with 5 - 14 Years of Service				
	Males		Females	
Age	Current	Recommended	Current	Recommended
21	0.022	0.0055	0.040	0.0100
22	0.022	0.0055	0.040	0.0100
23	0.022	0.0055	0.040	0.0100
24	0.022	0.0055	0.040	0.0100
25	0.022	0.0055	0.040	0.0100
26	0.022	0.0055	0.040	0.0100
27	0.022	0.0055	0.040	0.0100
28	0.022	0.0055	0.040	0.0100
29	0.022	0.0055	0.040	0.0100
30	0.022	0.0110	0.020	0.0150
31	0.022	0.0110	0.020	0.0150
32	0.022	0.0110	0.020	0.0150
33	0.022	0.0110	0.020	0.0150
34	0.022	0.0110	0.020	0.0150
35	0.013	0.0078	0.020	0.0130
36	0.013	0.0078	0.020	0.0130
37	0.013	0.0078	0.020	0.0130
38	0.013	0.0078	0.020	0.0130
39	0.013	0.0078	0.020	0.0130
40	0.010	0.0090	0.014	0.0126
41	0.010	0.0090	0.014	0.0126
42	0.010	0.0090	0.014	0.0126
43	0.010	0.0090	0.014	0.0126
44	0.010	0.0090	0.014	0.0126
45	0.010	0.0075	0.014	0.0105
46	0.010	0.0075	0.014	0.0105
47	0.010	0.0075	0.014	0.0105
48	0.010	0.0075	0.014	0.0105
49	0.010	0.0075	0.014	0.0105
50	0.010	0.0085	0.014	0.0140
51	0.010	0.0085	0.014	0.0140
52	0.010	0.0085	0.014	0.0140
53	0.010	0.0085	0.014	0.0140
54	0.010	0.0085	0.014	0.0140
55	0.020	0.0180	0.023	0.0230
56	0.020	0.0180	0.023	0.0230
57	0.020	0.0180	0.023	0.0230
58	0.020	0.0180	0.023	0.0230
59	0.020	0.0180	0.023	0.0230
60	0.000	0.0000	0.000	0.0000

Table A-7
Recommended Withdrawal Rates for Males

Age	Service														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
17	0.2700	0.1656													
18	0.2700	0.1656	0.2040												
19	0.2700	0.1656	0.2040	0.1511											
20	0.2700	0.1656	0.2040	0.1511	0.0931										
21	0.2700	0.1656	0.1504	0.1511	0.0931	0.0798									
22	0.2700	0.1656	0.1504	0.1511	0.0931	0.0798	0.0690								
23	0.2298	0.1656	0.1566	0.1061	0.0931	0.0798	0.0690	0.0763							
24	0.2463	0.1656	0.1566	0.1061	0.0931	0.0798	0.0690	0.0763	0.1052						
25	0.2305	0.1740	0.1566	0.1061	0.0931	0.0798	0.0690	0.0763	0.1052	0.0443					
26	0.1820	0.1571	0.1566	0.1061	0.0931	0.0798	0.0690	0.0763	0.1052	0.0443	0.0365				
27	0.1948	0.1571	0.1246	0.1061	0.0931	0.0798	0.0690	0.0763	0.1052	0.0443	0.0365	0.0426			
28	0.1948	0.1571	0.1246	0.1061	0.0931	0.0798	0.0600	0.0478	0.0454	0.0443	0.0365	0.0426	0.0231		
29	0.1948	0.1571	0.1246	0.1087	0.0931	0.0798	0.0600	0.0478	0.0454	0.0443	0.0365	0.0426	0.0231	0.0161	
30	0.1854	0.1408	0.1158	0.1087	0.0931	0.0798	0.0600	0.0478	0.0454	0.0443	0.0365	0.0426	0.0231	0.0161	0.0213
31	0.1854	0.1408	0.1021	0.1087	0.0931	0.0798	0.0600	0.0478	0.0454	0.0443	0.0365	0.0426	0.0231	0.0161	0.0213
32	0.1854	0.1408	0.1021	0.1087	0.0931	0.0798	0.0600	0.0478	0.0454	0.0443	0.0365	0.0426	0.0231	0.0161	0.0213
33	0.1854	0.1434	0.1021	0.1008	0.0668	0.0609	0.0542	0.0498	0.0347	0.0437	0.0335	0.0298	0.0230	0.0161	0.0213
34	0.1854	0.1434	0.1021	0.1008	0.0668	0.0609	0.0542	0.0498	0.0347	0.0403	0.0335	0.0298	0.0230	0.0161	0.0213
35	0.1854	0.1370	0.1021	0.0768	0.0668	0.0609	0.0542	0.0498	0.0347	0.0403	0.0335	0.0298	0.0230	0.0161	0.0213
36	0.1693	0.1370	0.0838	0.0768	0.0668	0.0609	0.0486	0.0498	0.0347	0.0403	0.0335	0.0298	0.0230	0.0161	0.0213
37	0.1693	0.1370	0.0923	0.0768	0.0668	0.0609	0.0486	0.0498	0.0347	0.0403	0.0335	0.0298	0.0230	0.0161	0.0213
38	0.1693	0.1370	0.0556	0.0768	0.0668	0.0609	0.0486	0.0394	0.0347	0.0403	0.0335	0.0298	0.0230	0.0161	0.0213
39	0.1371	0.1015	0.0707	0.0768	0.0786	0.0609	0.0486	0.0394	0.0347	0.0403	0.0335	0.0128	0.0230	0.0161	0.0213

Table A-7
Recommended Withdrawal Rates for Males

Age	Service														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
40	0.1638	0.1106	0.0841	0.0634	0.0662	0.0425	0.0380	0.0352	0.0297	0.0403	0.0268	0.0128	0.0230	0.0161	0.0213
41	0.1438	0.1244	0.0841	0.0634	0.0662	0.0425	0.0380	0.0359	0.0192	0.0403	0.0268	0.0128	0.0230	0.0161	0.0213
42	0.1606	0.1244	0.0683	0.0634	0.0662	0.0425	0.0380	0.0359	0.0192	0.0403	0.0268	0.0128	0.0230	0.0161	0.0092
43	0.1415	0.1244	0.0683	0.0564	0.0662	0.0425	0.0380	0.0359	0.0192	0.0403	0.0268	0.0128	0.0230	0.0161	0.0092
44	0.1567	0.0965	0.1071	0.0564	0.0662	0.0425	0.0380	0.0359	0.0192	0.0403	0.0268	0.0128	0.0230	0.0161	0.0092
45	0.1567	0.1647	0.0824	0.0564	0.0662	0.0425	0.0454	0.0364	0.0134	0.0248	0.0267	0.0185	0.0125	0.0164	0.0128
46	0.1567	0.0815	0.0824	0.0564	0.0662	0.0425	0.0454	0.0364	0.0134	0.0248	0.0267	0.0185	0.0253	0.0164	0.0128
47	0.1567	0.1075	0.0824	0.0760	0.0662	0.0425	0.0476	0.0352	0.0134	0.0248	0.0267	0.0185	0.0060	0.0164	0.0128
48	0.1567	0.1000	0.0824	0.0760	0.0477	0.0425	0.0476	0.0352	0.0134	0.0248	0.0267	0.0185	0.0333	0.0164	0.0128
49	0.1723	0.1000	0.0824	0.0760	0.0477	0.0286	0.0476	0.0352	0.0134	0.0248	0.0267	0.0185	0.0333	0.0164	0.0128
50	0.1723	0.1000	0.0694	0.0760	0.0638	0.0499	0.0525	0.0371	0.0246	0.0248	0.0187	0.0191	0.0113	0.0131	0.0128
51	0.1723	0.1000	0.0694	0.0760	0.0548	0.0499	0.0525	0.0371	0.0246	0.0248	0.0187	0.0116	0.0113	0.0131	0.0128
52	0.1723	0.1000	0.0694	0.0760	0.0548	0.0499	0.0525	0.0371	0.0246	0.0248	0.0187	0.0116	0.0113	0.0131	0.0128
53	0.1723	0.1000	0.0694	0.0760	0.0548	0.0499	0.0365	0.0371	0.0246	0.0248	0.0187	0.0116	0.0113	0.0131	0.0128
54	0.1723	0.0774	0.0771	0.0760	0.0548	0.0655	0.0365	0.0371	0.0246	0.0248	0.0187	0.0197	0.0113	0.0131	0.0128
55	0.1723	0.0774	0.0771	0.0760	0.0548	0.0462	0.0231	0.0226	0.0234	0.0240	0.0156	0.0054	0.0120	0.0080	0.0103
56	0.1723	0.0774	0.0771	0.0760	0.0548	0.0462	0.0231	0.0226	0.0234	0.0240	0.0156	0.0054	0.0120	0.0080	0.0103
57	0.1723	0.0774	0.0771	0.0760	0.0548	0.0462	0.0231	0.0226	0.0234	0.0240	0.0156	0.0054	0.0120	0.0080	0.0103
58	0.1723	0.0774	0.0771	0.0760	0.0548	0.0462	0.0231	0.0226	0.0234	0.0240	0.0156	0.0054	0.0120	0.0080	0.0103
59	0.1723	0.0774	0.0771	0.0760	0.0548	0.0462	0.0231	0.0226	0.0234	0.0240	0.0156	0.0054	0.0120	0.0080	0.0103

Table A-7 Recommended Withdrawal Rates for Females															
Age	Service														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
17	0.3402	0.1905													
18	0.3402	0.1905	0.2284												
19	0.3402	0.1905	0.2284	0.1579											
20	0.3402	0.1905	0.2284	0.1579	0.1314										
21	0.3402	0.1905	0.2284	0.1579	0.1314	0.1281									
22	0.3402	0.1905	0.2284	0.1579	0.1314	0.1281	0.1620								
23	0.2523	0.2550	0.2284	0.1579	0.1314	0.1281	0.1620	0.0598							
24	0.2523	0.1891	0.1527	0.1579	0.1314	0.1281	0.1620	0.0598	0.0580						
25	0.2523	0.1891	0.1527	0.1579	0.1314	0.1281	0.1620	0.0598	0.0580	0.0847					
26	0.2131	0.1891	0.1527	0.1579	0.1314	0.1281	0.1620	0.0598	0.0580	0.0847	0.0469				
27	0.2131	0.1891	0.1527	0.1579	0.1314	0.1281	0.1620	0.0598	0.0580	0.0847	0.0469	0.0391			
28	0.2131	0.1393	0.1293	0.1184	0.0981	0.0814	0.0851	0.0598	0.0580	0.0847	0.0469	0.0391	0.0360		
29	0.2131	0.1393	0.1293	0.1184	0.0981	0.0814	0.0851	0.0598	0.0580	0.0847	0.0469	0.0391	0.0360	0.0171	
30	0.2131	0.1393	0.1293	0.1189	0.0981	0.0814	0.0851	0.0598	0.0580	0.0847	0.0469	0.0391	0.0360	0.0171	0.0276
31	0.1868	0.1393	0.1293	0.1189	0.0981	0.0814	0.0851	0.0598	0.0580	0.0847	0.0469	0.0391	0.0360	0.0171	0.0276
32	0.1868	0.1169	0.1293	0.1189	0.0981	0.0814	0.0851	0.0598	0.0580	0.0508	0.0469	0.0391	0.0360	0.0171	0.0276
33	0.1868	0.1169	0.1293	0.0995	0.0828	0.0870	0.0659	0.0628	0.0478	0.0508	0.0469	0.0391	0.0414	0.0171	0.0276
34	0.1621	0.1169	0.1079	0.0983	0.0727	0.0580	0.0659	0.0503	0.0459	0.0484	0.0465	0.0312	0.0307	0.0171	0.0276
35	0.1826	0.1169	0.1079	0.0983	0.0860	0.0580	0.0659	0.0503	0.0459	0.0484	0.0465	0.0312	0.0307	0.0171	0.0276
36	0.1979	0.1169	0.1079	0.0983	0.0840	0.0580	0.0659	0.0503	0.0459	0.0484	0.0465	0.0312	0.0307	0.0171	0.0276
37	0.1802	0.1169	0.1079	0.0770	0.1088	0.0580	0.0659	0.0503	0.0459	0.0484	0.0465	0.0312	0.0307	0.0171	0.0276
38	0.1952	0.1169	0.1079	0.0770	0.0599	0.0580	0.0471	0.0263	0.0449	0.0484	0.0408	0.0292	0.0218	0.0323	0.0145
39	0.1779	0.1169	0.1079	0.0770	0.0599	0.0580	0.0471	0.0263	0.0449	0.0280	0.0408	0.0292	0.0218	0.0323	0.0145

Table A-7
Recommended Withdrawal Rates for Females

Age	Service 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
40	0.1477	0.1148	0.1079	0.0770	0.0599	0.0580	0.0337	0.0263	0.0449	0.0280	0.0360	0.0256	0.0228	0.0130	0.0231
41	0.1759	0.1148	0.1079	0.0770	0.0599	0.0634	0.0337	0.0367	0.0449	0.0280	0.0360	0.0256	0.0107	0.0130	0.0231
42	0.1455	0.1148	0.0916	0.0770	0.0599	0.0634	0.0495	0.0367	0.0389	0.0280	0.0336	0.0256	0.0107	0.0130	0.0231
43	0.1877	0.1053	0.0790	0.0721	0.0599	0.0488	0.0495	0.0367	0.0389	0.0380	0.0336	0.0256	0.0107	0.0130	0.0231
44	0.1877	0.1053	0.0790	0.0721	0.0550	0.0488	0.0495	0.0367	0.0389	0.0380	0.0336	0.0256	0.0107	0.0130	0.0231
45	0.1877	0.1053	0.0790	0.0721	0.0550	0.0488	0.0495	0.0367	0.0389	0.0380	0.0336	0.0256	0.0107	0.0130	0.0231
46	0.1877	0.1053	0.0790	0.0721	0.0550	0.0488	0.0448	0.0367	0.0389	0.0380	0.0336	0.0177	0.0179	0.0161	0.0231
47	0.1877	0.1053	0.0790	0.0721	0.0550	0.0488	0.0448	0.0367	0.0389	0.0380	0.0336	0.0177	0.0179	0.0161	0.0231
48	0.1877	0.1053	0.0790	0.0721	0.0550	0.0488	0.0448	0.0409	0.0333	0.0262	0.0336	0.0177	0.0179	0.0161	0.0231
49	0.1877	0.1053	0.0790	0.0721	0.0648	0.0488	0.0448	0.0409	0.0333	0.0262	0.0336	0.0177	0.0179	0.0161	0.0231
50	0.1575	0.1053	0.0790	0.0721	0.0648	0.0488	0.0448	0.0409	0.0333	0.0262	0.0302	0.0177	0.0179	0.0161	0.0231
51	0.1575	0.1076	0.0790	0.0814	0.0651	0.0463	0.0448	0.0409	0.0333	0.0262	0.0302	0.0177	0.0179	0.0161	0.0231
52	0.1575	0.1076	0.0790	0.0814	0.0651	0.0463	0.0200	0.0409	0.0333	0.0262	0.0302	0.0177	0.0179	0.0161	0.0089
53	0.1575	0.1076	0.0862	0.0814	0.0651	0.0463	0.0434	0.0409	0.0333	0.0262	0.0222	0.0269	0.0062	0.0161	0.0089
54	0.1575	0.1076	0.0862	0.0730	0.0651	0.0463	0.0434	0.0409	0.0333	0.0262	0.0222	0.0269	0.0062	0.0161	0.0089
55	0.1575	0.1076	0.0862	0.0730	0.0651	0.0463	0.0442	0.0394	0.0323	0.0198	0.0263	0.0096	0.0175	0.0074	0.0151
56	0.1575	0.1076	0.0862	0.0730	0.0730	0.0463	0.0442	0.0394	0.0323	0.0198	0.0263	0.0096	0.0175	0.0074	0.0151
57	0.1575	0.1076	0.0862	0.0730	0.0730	0.0463	0.0442	0.0394	0.0323	0.0198	0.0263	0.0096	0.0175	0.0074	0.0151
58	0.1575	0.1076	0.0862	0.0730	0.0730	0.0463	0.0442	0.0394	0.0323	0.0198	0.0263	0.0096	0.0175	0.0074	0.0151
59	0.1575	0.1076	0.0862	0.0730	0.0730	0.0463	0.0442	0.0394	0.0323	0.0198	0.0263	0.0096	0.0175	0.0074	0.0151

Table A-8 Mortality Rates for Non-Disabled Annuitants and Survivors				
Age	Males		Females	
	Current	Recommended	Current	Recommended
50	0.00298	0.00283	0.00233	0.00265
51	0.00321	0.00306	0.00246	0.00273
52	0.00346	0.00331	0.00259	0.00283
53	0.00372	0.00359	0.00272	0.00292
54	0.00401	0.00389	0.00286	0.00303
55	0.00431	0.00422	0.00301	0.00314
56	0.00463	0.00458	0.00318	0.00325
57	0.00497	0.00496	0.00336	0.00341
58	0.00533	0.00537	0.00358	0.00361
59	0.00573	0.00580	0.00384	0.00384
60	0.00615	0.00625	0.00416	0.00408
61	0.00661	0.00670	0.00454	0.00436
62	0.00713	0.00718	0.00500	0.00467
63	0.00770	0.00768	0.00552	0.00504
64	0.00836	0.00824	0.00613	0.00549
65	0.00913	0.00886	0.00682	0.00604
66	0.01003	0.00958	0.00760	0.00670
67	0.01108	0.01040	0.00849	0.00749
68	0.01229	0.01137	0.00950	0.00842
69	0.01368	0.01249	0.01063	0.00949
70	0.01526	0.01380	0.01191	0.01072
71	0.01703	0.01534	0.01335	0.01213
72	0.01904	0.01714	0.01497	0.01374
73	0.02129	0.01922	0.01679	0.01557
74	0.02384	0.02164	0.01883	0.01765
75	0.02671	0.02441	0.02111	0.02002
76	0.02995	0.02758	0.02368	0.02273
77	0.03361	0.03119	0.02658	0.02581
78	0.03775	0.03530	0.02986	0.02936
79	0.04243	0.03994	0.03360	0.03344
80	0.04774	0.04516	0.03787	0.03816
81	0.05374	0.05102	0.04276	0.04358

Table A-8 Mortality Rates for Non-Disabled Annuitants and Survivors				
Age	Males		Females	
	Current	Recommended	Current	Recommended
82	0.06052	0.05759	0.04834	0.04974
83	0.06811	0.06497	0.05474	0.05669
84	0.07656	0.07330	0.06205	0.06441
85	0.08591	0.08271	0.07041	0.07292
86	0.09615	0.09337	0.07987	0.08227
87	0.10733	0.10539	0.09046	0.09256
88	0.11947	0.11885	0.10216	0.10392
89	0.13260	0.13380	0.11487	0.11648
90	0.14672	0.15027	0.12833	0.12999
91	0.16170	0.16780	0.14239	0.14429
92	0.17745	0.18608	0.15702	0.15932
93	0.19392	0.20495	0.17228	0.17509
94	0.21107	0.22434	0.18825	0.19165
95	0.22888	0.24423	0.20505	0.20906
96	0.24731	0.26466	0.22278	0.22739
97	0.26634	0.28564	0.24147	0.24663
98	0.28589	0.30714	0.26113	0.26675
99	0.30586	0.32910	0.28160	0.28760
100	0.32609	0.35131	0.30265	0.30893
101	0.34636	0.37345	0.32382	0.33033
102	0.36640	0.39502	0.34494	0.35162
103	0.38604	0.41584	0.36581	0.37259
104	0.40512	0.43574	0.38625	0.39307
105	0.42352	0.45458	0.40609	0.41288
106	0.44113	0.47226	0.42519	0.43188
107	0.45786	0.48873	0.44341	0.44995
108	0.47364	0.50000	0.46067	0.46701
109	0.48843	0.50000	0.47690	0.48299
110	0.50000	0.50000	0.49205	0.49786
111	0.50000	0.50000	0.50000	0.50000
112	0.50000	0.50000	0.50000	0.50000
113	0.50000	0.50000	0.50000	0.50000

Table A-8 Mortality Rates for Non-Disabled Annuitants and Survivors				
Age	Males		Females	
	Current	Recommended	Current	Recommended
114	0.50000	0.50000	0.50000	0.50000
115	0.50000	0.50000	0.50000	0.50000
116	0.50000	0.50000	0.50000	0.50000
117	0.50000	0.50000	0.50000	0.50000
118	0.50000	0.50000	0.50000	0.50000
119	0.50000	0.50000	0.50000	0.50000
120	1.00000	1.00000	1.00000	1.00000

Table A-9 Mortality Rates for Disabled Annuitants				
Age	Males		Females	
	Current	Recommended	Current	Recommended
30	0.00391	0.00290	0.00307	0.00186
31	0.00411	0.00297	0.00336	0.00201
32	0.00434	0.00307	0.00367	0.00218
33	0.00458	0.00320	0.00401	0.00236
34	0.00486	0.00337	0.00438	0.00255
35	0.00518	0.00358	0.00479	0.00275
36	0.00555	0.00383	0.00524	0.00297
37	0.00597	0.00412	0.00574	0.00320
38	0.00645	0.00445	0.00629	0.00345
39	0.00700	0.00483	0.00689	0.00373
40	0.00763	0.00525	0.00754	0.00403
41	0.00834	0.00571	0.00825	0.00437
42	0.00916	0.00621	0.00902	0.00476
43	0.01007	0.00674	0.00985	0.00518
44	0.01109	0.00731	0.01073	0.00566
45	0.01221	0.00795	0.01167	0.00617
46	0.01342	0.00865	0.01267	0.00674
47	0.01470	0.00941	0.01373	0.00733
48	0.01605	0.01024	0.01483	0.00797
49	0.01712	0.01115	0.01535	0.00867
50	0.01818	0.01213	0.01587	0.00943
51	0.01921	0.01321	0.01640	0.01025
52	0.02020	0.01437	0.01692	0.01115
53	0.02114	0.01564	0.01742	0.01213
54	0.02201	0.01702	0.01789	0.01319
55	0.02280	0.01853	0.01833	0.01435
56	0.02355	0.02016	0.01874	0.01561
57	0.02428	0.02117	0.01914	0.01698
58	0.02503	0.02204	0.01956	0.01733
59	0.02584	0.02279	0.02000	0.01766
60	0.02677	0.02345	0.02051	0.01800
61	0.02785	0.02406	0.02110	0.01835

Table A-9 Mortality Rates for Disabled Annuitants				
Age	Males		Females	
	Current	Recommended	Current	Recommended
62	0.02908	0.02466	0.02178	0.01874
63	0.03044	0.02531	0.02256	0.01920
64	0.03193	0.02608	0.02346	0.01976
65	0.03353	0.02705	0.02450	0.02047
66	0.03524	0.02831	0.02569	0.02138
67	0.03706	0.02995	0.02706	0.02256
68	0.03901	0.03201	0.02862	0.02408
69	0.04113	0.03450	0.03039	0.02598
70	0.04344	0.03743	0.03239	0.02828
71	0.04599	0.04084	0.03464	0.03104
72	0.04880	0.04472	0.03718	0.03429
73	0.05192	0.04906	0.04003	0.03807
74	0.05537	0.05385	0.04322	0.04236
75	0.05921	0.05901	0.04678	0.04709
76	0.06347	0.06446	0.05075	0.05217
77	0.06822	0.07012	0.05517	0.05742
78	0.07348	0.07608	0.06007	0.06267
79	0.07929	0.08252	0.06550	0.06800
80	0.08565	0.08968	0.07150	0.07364
81	0.09259	0.09789	0.07811	0.07986
82	0.10010	0.10847	0.08536	0.08708
83	0.10815	0.12062	0.09331	0.09502
84	0.11678	0.13397	0.10163	0.10351
85	0.12605	0.14854	0.11014	0.11248
86	0.13603	0.16429	0.11878	0.12195
87	0.14861	0.18068	0.12757	0.13197
88	0.16253	0.19745	0.13665	0.14265
89	0.17681	0.21449	0.14617	0.15414
90	0.19126	0.23188	0.15635	0.16659
91	0.20588	0.24976	0.16740	0.18013
92	0.22078	0.26833	0.17955	0.19488
93	0.23617	0.28775	0.19298	0.21094

Table A-9 Mortality Rates for Disabled Annuitants				
Age	Males		Females	
	Current	Recommended	Current	Recommended
94	0.25226	0.30811	0.20784	0.22833
95	0.26924	0.32937	0.22444	0.24701
96	0.28723	0.35131	0.24226	0.26684
97	0.30624	0.37345	0.26135	0.28760
98	0.32609	0.39502	0.28160	0.30893
99	0.34636	0.41584	0.30265	0.33033
100	0.36640	0.43574	0.32382	0.35162
101	0.38604	0.45458	0.34494	0.37259
102	0.40512	0.47226	0.36581	0.39307
103	0.42352	0.48873	0.38625	0.41288
104	0.44113	0.50000	0.40609	0.43188
105	0.45786	0.50000	0.42519	0.44995
106	0.47364	0.50000	0.44341	0.46701
107	0.48843	0.50000	0.46067	0.48299
108	0.50000	0.50000	0.47690	0.49786
109	0.50000	0.50000	0.49205	0.50000
110	0.50000	0.50000	0.50000	0.50000
111	0.50000	0.50000	0.50000	0.50000
112	0.50000	0.50000	0.50000	0.50000
113	0.50000	0.50000	0.50000	0.50000
114	0.50000	0.50000	0.50000	0.50000
115	0.50000	0.50000	0.50000	0.50000
116	0.50000	0.50000	0.50000	0.50000
117	0.50000	0.50000	0.50000	0.50000
118	0.50000	0.50000	0.50000	0.50000
119	0.50000	0.50000	0.50000	0.50000
120	1.00000	1.00000	1.00000	1.00000

Table A-10 Superannuation Retirement Rates for State Police		
	Males & Females	
Service	Current	Recommended
20	0.07500	0.070
21	0.07500	0.070
22	0.07500	0.070
23	0.07500	0.070
24	0.60000	0.600
25	0.60000	0.450
26	0.25000	0.250
27	0.25000	0.250
28	0.25000	0.250
29	0.25000	0.250
30	0.25000	0.250
31	0.25000	0.250
32	0.25000	0.250
33	0.25000	0.250
34	0.25000	0.250
35	0.25000	0.250
36	0.40000	0.400
37	0.40000	0.400
38	0.40000	0.400
39	0.40000	0.400
40	1.00000	1.000

Table A-11 Superannuation Retirement Rates for Hazardous Duty Employees		
	Males & Females	
Age	Current	Recommended
49	0.10	0.10
50	0.15	0.18
51	0.10	0.12
52	0.10	0.12
53	0.10	0.12
54	0.10	0.12
55	0.12	0.14
56	0.10	0.12
57	0.10	0.12
58	0.10	0.12
59	0.12	0.12
60	0.16	0.16
61	0.16	0.18
62	0.20	0.21
63	0.20	0.21
64	0.20	0.21
65	0.23	0.30
66	0.30	0.35
67	0.25	0.25
68	0.25	0.25
69	0.20	0.30
70	0.20	0.25
71 to 79	0.20	0.25
80	1.00	1.00

Table A-12 Early Retirement Rates for State Police and Hazardous Duty Employees		
Age	Males & Females	
	Current	Recommended
17 to 49	0.0150	0.0190
50 to 59	0.0000	0.0000

Table A-13 Withdrawal Rates for State Police and Hazardous Duty Employees		
Service	Males & Females	
	Current	Recommended
0	0.0900	0.1500
1	0.0500	0.0700
2	0.0300	0.0500
3	0.0300	0.0500
4	0.0200	0.0300
5	0.0200	0.0300
6	0.0100	0.0200
7	0.0055	0.0200
8	0.0055	0.0150
9	0.0055	0.0100
10	0.0030	0.0040

Table A-14 Superannuation Retirement Rates for Legislators		
	Males & Females	
Age	Current	Recommended
49	0.070	0.096
50	0.070	0.096
51	0.070	0.096
52	0.070	0.096
53	0.070	0.096
54	0.070	0.096
55	0.070	0.096
56	0.070	0.096
57	0.070	0.096
58	0.070	0.096
59	0.070	0.096
60	0.070	0.096
61	0.070	0.096
62	0.070	0.096
63	0.110	0.130
64	0.110	0.130
65	0.110	0.130
66	0.110	0.130
67	0.110	0.130
68	0.110	0.130
69	0.110	0.130
70	0.090	0.220
71	0.090	0.220
72	0.090	0.220
73 to 79	0.090	0.220
80	1.090	1.000

Table A-15 Early Retirement Rates for Legislators		
	Males & Females	
Age	Current	Recommended
17 to 49	0.0290	0.0105
50 to 59	0.0000	0.0000

Table A-16 Withdrawal Rates for Legislators		
	Males & Females	
Service	Current	Recommended
0	0.040	0.038
1	0.040	0.038
2	0.040	0.038
3	0.040	0.038
4	0.040	0.038
5	0.040	0.038
6	0.040	0.038
7	0.040	0.038
8	0.040	0.038
9	0.040	0.038
10	0.040	0.038

Table A-17 Superannuation Retirement Rates for Judicial Officers		
	Males & Females	
Age	Current	Recommended
49 to 58	0.0500	0.05
59	0.0500	0.05
60	0.0500	0.05
61	0.0500	0.05
62	0.0500	0.05
63	0.0500	0.05
64	0.0500	0.05
65	0.1000	0.05
66	0.1000	0.12
67	0.1000	0.12
68	0.1000	0.12
69	0.2000	0.12
70	0.2500	0.12
71	0.2000	0.20
72	0.2000	0.20
73	0.2000	0.20
74	0.2000	0.50
75	1.0000	0.50

Table A-18 Early Retirement Rates for Judicial Officers		
	Males & Females	
Age	Current	Recommended
17 to 49	0.01000	0.00960
50 to 59	0.01000	0.00960

Table A-19 Withdrawal Rates for Judicial Officers		
	Males & Females	
Service	Current	Recommended
0	0.0300	0.038
1	0.0300	0.006
2	0.0040	0.006
3	0.0040	0.006
4	0.0040	0.006
5	0.0040	0.006
6	0.0040	0.006
7	0.0040	0.006
8	0.0040	0.006
9	0.0040	0.006
10	0.0040	0.006

Table A-20 Early Retirement Rates for Class A-3 and Class A-4 Active General Employees with 10 or more Years of Service		
Ages	Males & Females	
	Current	Recommended
31 to 46	0.01500	0.0100
47	0.02000	0.0150
48	0.02000	0.0150
49	0.02000	0.0150
50	0.02000	0.0150
51	0.03000	0.0200
52	0.04000	0.0250
53	0.04500	0.0250
54	0.05000	0.0250
55	0.05500	0.0300
56	0.05500	0.0300
57	0.05500	0.0300
58	0.05500	0.0300
59	0.05500	0.0300
60	0.05500	0.0300
61	0.06000	0.0600
62	0.20000	0.1500
63	0.10000	0.1000
64	0.15000	0.1500
65	0.00000	0.0000

It should be noted that the original rates in Table A-20 were not based upon the actual experience of Class A-3 and Class A-4 members but have been adjusted as data becomes available.

Table A-21 Superannuation Retirement Rates for Class A-3 and Class A-4 General Employees		
	Males & Females	
Age	Current Superannuation Retirement Rates	Recommended Superannuation Retirement Rates
55	0.15	0.15
56	0.16	0.16
57	0.17	0.17
58	0.18	0.18
59	0.19	0.19
60	0.20	0.20
61	0.20	0.20
62	0.25	0.25
63	0.20	0.20
64	0.20	0.20
65	0.25	0.25
66 to 79	0.20	0.15
80	1.00	1.00

It should be noted that the above rates in Table A-21 were not based upon the actual experience of Class A-3 and Class A-4 members. Rather, these rates were developed by Korn Ferry at the time of the 2011 actuarial experience study, based upon our past SERS experience and professional judgment. In Korn Ferry's opinion, these rates remain reasonable and appropriate for use until such time as actual Class A-3 and Class A-4 superannuation retirement experience becomes available, at which time they will be updated. Very minor adjustments have been made as data becomes available.

Table A-22 Early Retirement Rates for Class A-5 and Class A-6 Active General Employees with 10 or more Years of Service		
	Males & Females	
Ages	Current	Recommended
31 to 46	0.01500	0.01000
47	0.02000	0.01500
48	0.02000	0.01500
49	0.02000	0.01500
50	0.02000	0.01500
51	0.03000	0.02000
52	0.04000	0.02500
53	0.04500	0.02500
54	0.05000	0.02500
55	0.05500	0.03000
56	0.05500	0.03000
57	0.05500	0.03000
58	0.05500	0.03000
59	0.05500	0.03000
60	0.05500	0.03000
61	0.06000	0.06000
62	0.08000	0.15000
63	0.10000	0.10000
64	0.10000	0.15000
65	0.15000	0.15000
66	0.20000	0.20000
67	0.00000	0.00000

It should be noted that the above rates in Table A-22 were not based upon the actual experience of Class A-5 and Class A-6 members. Rather, these rates were developed by Korn Ferry at the time of the 2019 actuarial valuation, based upon our past SERS experience and professional judgment. As data has become available, adjustments have been made.

Table A-23 Superannuation Retirement Rates for Class A-5 and Class A-6 General Employees		
	Males & Females	
Age	Current Superannuation Retirement Rates	Recommended Superannuation Retirement Rates
55	0.15	0.15
56	0.16	0.16
57	0.17	0.17
58	0.18	0.18
59	0.19	0.19
60	0.20	0.20
61	0.20	0.20
62	0.25	0.25
63	0.20	0.20
64	0.20	0.20
65	0.25	0.25
66 to 79	0.20	0.15
80	1.00	1.00

It should be noted that the above rates in Table A-23 were not based upon the actual experience of Class A-5 and Class A-6 members. Rather, these rates were developed by Korn Ferry at the time of the 2019 actuarial valuation, based upon our past SERS experience and professional judgment. In Korn Ferry's opinion, these rates remain reasonable and appropriate for use until such time as actual Class A-5 and Class A-6 superannuation retirement experience becomes available, at which time they will be updated. Very minor adjustments have been made as data becomes available.

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 1A **Calendar Years 2020 - 2024**

Mortality Experience of Active General Employees **Males**

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
17	1	0	0.0	0.0	0.00	0.00	0.0000%	0.0600%	0.0600%
18	23	0	0.0	0.0	0.00	0.00	0.0000%	0.0600%	0.0600%
19	231	0	0.1	0.1	0.00	0.00	0.0000%	0.0600%	0.0600%
20	492	0	0.3	0.3	0.00	0.00	0.0000%	0.0600%	0.0600%
21	636	0	0.4	0.4	0.00	0.00	0.0000%	0.0600%	0.0600%
22	874	0	0.5	0.5	0.00	0.00	0.0000%	0.0600%	0.0600%
23	1,277	2	0.8	0.8	2.61	2.61	0.1566%	0.0600%	0.0600%
24	1,618	3	1.0	1.0	3.09	3.09	0.1854%	0.0600%	0.0600%
25	1,829	0	1.1	1.1	0.00	0.00	0.0000%	0.0600%	0.0600%
26	2,054	2	1.2	1.2	1.62	1.62	0.0974%	0.0600%	0.0600%
27	2,254	0	1.4	1.4	0.00	0.00	0.0000%	0.0600%	0.0600%
28	2,432	3	1.5	1.5	2.06	2.06	0.1234%	0.0600%	0.0600%
29	2,704	1	1.6	1.6	0.62	0.62	0.0370%	0.0600%	0.0600%
30	2,906	3	2.0	2.0	1.47	1.47	0.1032%	0.0700%	0.0700%
31	3,144	4	2.2	2.2	1.82	1.82	0.1272%	0.0700%	0.0700%
32	3,400	3	2.4	2.4	1.26	1.26	0.0882%	0.0700%	0.0700%
33	3,565	0	2.5	2.5	0.00	0.00	0.0000%	0.0700%	0.0700%
34	3,763	2	2.6	2.6	0.76	0.76	0.0531%	0.0700%	0.0700%
35	3,910	4	3.1	3.1	1.28	1.28	0.1023%	0.0800%	0.0800%
36	4,004	3	3.2	3.2	0.94	0.94	0.0749%	0.0800%	0.0800%
37	4,083	5	3.7	3.7	1.36	1.36	0.1225%	0.0900%	0.0900%
38	4,246	2	4.2	4.2	0.47	0.47	0.0471%	0.1000%	0.1000%
39	4,353	1	4.8	4.8	0.21	0.21	0.0230%	0.1100%	0.1100%
40	4,518	2	5.0	5.0	0.40	0.40	0.0443%	0.1100%	0.1100%
41	4,618	6	5.5	5.5	1.08	1.08	0.1299%	0.1200%	0.1200%
42	4,647	5	6.0	6.0	0.83	0.83	0.1076%	0.1300%	0.1300%
43	4,635	1	6.0	6.0	0.17	0.17	0.0216%	0.1300%	0.1300%
44	4,610	7	6.5	6.5	1.08	1.08	0.1518%	0.1400%	0.1400%
45	4,566	5	6.4	6.4	0.78	0.78	0.1095%	0.1400%	0.1400%
46	4,634	3	7.0	7.0	0.43	0.43	0.0647%	0.1500%	0.1500%
47	4,682	11	7.0	7.0	1.57	1.57	0.2349%	0.1500%	0.1500%
48	4,823	7	8.2	8.2	0.85	0.85	0.1451%	0.1700%	0.1700%
49	5,183	8	9.3	9.3	0.86	0.86	0.1544%	0.1800%	0.1800%
50	5,424	9	10.8	10.8	0.83	0.83	0.1659%	0.2000%	0.2000%
51	5,685	13	11.9	11.9	1.09	1.09	0.2287%	0.2100%	0.2100%
52	5,875	15	12.9	12.9	1.16	1.16	0.2553%	0.2200%	0.2200%
53	5,907	16	13.6	13.6	1.18	1.18	0.2709%	0.2300%	0.2300%
54	5,966	18	14.3	14.3	1.26	1.26	0.3017%	0.2400%	0.2400%
55	5,954	18	14.9	14.9	1.21	1.21	0.3023%	0.2500%	0.2500%
56	5,984	19	15.6	15.6	1.22	1.22	0.3175%	0.2600%	0.2600%
57	6,059	23	16.4	16.4	1.41	1.41	0.3796%	0.2700%	0.2700%
58	6,028	21	16.9	16.9	1.24	1.24	0.3484%	0.2800%	0.2800%
59	5,914	24	16.6	16.6	1.45	1.45	0.4058%	0.2800%	0.2800%
60	5,385	14	15.6	15.6	0.90	0.90	0.2600%	0.2900%	0.2900%
61	4,601	21	14.3	14.3	1.47	1.47	0.4564%	0.3100%	0.3100%
62	4,137	19	13.7	13.7	1.39	1.39	0.4593%	0.3300%	0.3300%
63	3,636	15	12.7	12.7	1.18	1.18	0.4125%	0.3500%	0.3500%
64	3,240	20	12.0	12.0	1.67	1.67	0.6173%	0.3700%	0.3700%
65	2,774	14	11.4	11.4	1.23	1.23	0.5047%	0.4100%	0.4100%
66	2,130	9	9.8	9.8	0.92	0.92	0.4225%	0.4600%	0.4600%
67	1,599	7	8.0	8.0	0.88	0.88	0.4378%	0.5000%	0.5000%
68	1,277	11	7.3	7.3	1.51	1.51	0.8614%	0.5700%	0.5700%
69	1,018	3	6.5	6.5	0.46	0.46	0.2947%	0.6400%	0.6400%
70	800	6	5.8	5.8	1.03	1.03	0.7500%	0.7300%	0.7300%
71	631	5	5.2	5.2	0.97	0.97	0.7924%	0.8200%	0.8200%
72	531	7	4.9	4.9	1.43	1.43	1.3183%	0.9200%	0.9200%
73	425	9	4.7	4.7	1.93	1.93	2.1176%	1.1000%	1.1000%
74	338	3	4.5	4.5	0.67	0.67	0.8876%	1.3300%	1.3300%
75	275	3	4.3	4.3	0.70	0.70	1.0909%	1.5600%	1.5600%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 1A **Calendar Years 2020 - 2024**

Mortality Experience of Active General Employees **Males**

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
76	222	3	4.1	4.1	0.74	0.74	1.3514%	1.8300%	1.8300%
77	167	1	3.7	3.7	0.27	0.27	0.5988%	2.2000%	2.2000%
78	125	1	3.0	3.0	0.34	0.34	0.8000%	2.3800%	2.3800%
79	99	1	2.5	2.5	0.39	0.39	1.0101%	2.5600%	2.5600%
80	67	1	1.8	1.8	0.54	0.54	1.4925%	2.7500%	2.7500%
81	46	1	1.3	1.3	0.79	0.79	2.1739%	2.7500%	2.7500%
82	34	0	0.9	0.9	0.00	0.00	0.0000%	2.7500%	2.7500%
83	26	0	0.7	0.7	0.00	0.00	0.0000%	2.7500%	2.7500%
84	18	1	0.5	0.5	2.02	2.02	5.5556%	2.7500%	2.7500%
85	13	1	0.4	0.4	2.80	2.80	7.6923%	2.7500%	2.7500%
86	9	0	0.2	0.2	0.00	0.00	0.0000%	2.7500%	2.7500%
87	5	0	0.1	0.1	0.00	0.00	0.0000%	2.7500%	2.7500%
88	4	0	0.1	0.1	0.00	0.00	0.0000%	2.7500%	2.7500%
89	3	0	0.1	0.1	0.00	0.00	0.0000%	2.7500%	2.7500%
90	4	0	0.1	0.1	0.00	0.00	0.0000%	2.7500%	2.7500%
91	3	0	0.1	0.1	0.00	0.00	0.0000%	2.7500%	2.7500%
92	2	0	0.1	0.1	0.00	0.00	0.0000%	2.7500%	2.7500%
93	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
94	1	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
95	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
96	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
97	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
98	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
99	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
100	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
101	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7500%	2.7500%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	*193,156*	*445*	*411.7*	*411.7*	*1.08*	*1.08*	*0.2304%*	*0.2131%*	*0.2131%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 1A — **Calendar Years 2020 - 2024**

Mortality Experience of Active General Employees — **Females**

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
17	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0100%	0.0100%
18	22	0	0.0	0.0	0.00	0.00	0.0000%	0.0100%	0.0100%
19	127	0	0.0	0.0	0.00	0.00	0.0000%	0.0300%	0.0300%
20	278	0	0.1	0.1	0.00	0.00	0.0000%	0.0300%	0.0300%
21	421	0	0.1	0.1	0.00	0.00	0.0000%	0.0300%	0.0300%
22	662	0	0.2	0.2	0.00	0.00	0.0000%	0.0300%	0.0300%
23	1,086	1	0.3	0.3	3.07	3.07	0.0921%	0.0300%	0.0300%
24	1,403	0	0.4	0.4	0.00	0.00	0.0000%	0.0300%	0.0300%
25	1,652	1	0.5	0.5	2.02	2.02	0.0605%	0.0300%	0.0300%
26	1,934	0	0.6	0.6	0.00	0.00	0.0000%	0.0300%	0.0300%
27	2,203	1	0.7	0.7	1.51	1.51	0.0454%	0.0300%	0.0300%
28	2,394	0	0.7	0.7	0.00	0.00	0.0000%	0.0300%	0.0300%
29	2,686	0	0.8	0.8	0.00	0.00	0.0000%	0.0300%	0.0300%
30	2,966	1	0.9	0.9	1.12	1.12	0.0337%	0.0300%	0.0300%
31	3,219	1	1.0	1.0	1.04	1.04	0.0311%	0.0300%	0.0300%
32	3,328	1	1.0	1.0	1.00	1.00	0.0300%	0.0300%	0.0300%
33	3,616	0	1.4	1.4	0.00	0.00	0.0000%	0.0400%	0.0400%
34	3,708	2	1.5	1.5	1.35	1.35	0.0539%	0.0400%	0.0400%
35	3,843	1	1.5	1.5	0.65	0.65	0.0260%	0.0400%	0.0400%
36	4,071	2	1.6	1.6	1.23	1.23	0.0491%	0.0400%	0.0400%
37	4,357	1	2.2	2.2	0.46	0.46	0.0230%	0.0500%	0.0500%
38	4,559	1	2.3	2.3	0.44	0.44	0.0219%	0.0500%	0.0500%
39	4,669	0	2.3	2.3	0.00	0.00	0.0000%	0.0500%	0.0500%
40	4,846	1	2.4	2.4	0.41	0.41	0.0206%	0.0500%	0.0500%
41	5,020	2	2.5	2.5	0.80	0.80	0.0398%	0.0500%	0.0500%
42	5,007	3	3.0	3.0	1.00	1.00	0.0599%	0.0600%	0.0600%
43	5,015	5	3.5	3.5	1.42	1.42	0.0997%	0.0700%	0.0700%
44	5,020	5	4.0	4.0	1.25	1.25	0.0996%	0.0800%	0.0800%
45	5,002	6	4.0	4.0	1.50	1.50	0.1200%	0.0800%	0.0800%
46	5,000	3	4.5	4.5	0.67	0.67	0.0600%	0.0900%	0.0900%
47	5,023	3	5.0	5.0	0.60	0.60	0.0597%	0.1000%	0.1000%
48	5,195	7	5.2	5.2	1.35	1.35	0.1347%	0.1000%	0.1000%
49	5,507	6	6.1	6.1	0.99	0.99	0.1090%	0.1100%	0.1100%
50	5,775	7	6.4	6.4	1.10	1.10	0.1212%	0.1100%	0.1100%
51	6,008	6	6.6	6.6	0.91	0.91	0.0999%	0.1100%	0.1100%
52	6,172	8	6.8	6.8	1.18	1.18	0.1296%	0.1100%	0.1100%
53	6,285	11	6.9	6.9	1.59	1.59	0.1750%	0.1100%	0.1100%
54	6,202	8	6.8	6.8	1.17	1.17	0.1290%	0.1100%	0.1100%
55	6,117	8	7.3	7.3	1.09	1.09	0.1308%	0.1200%	0.1200%
56	6,004	7	7.8	7.8	0.90	0.90	0.1166%	0.1300%	0.1300%
57	5,946	13	8.3	8.3	1.56	1.56	0.2186%	0.1400%	0.1400%
58	5,866	9	9.4	9.4	0.96	0.96	0.1534%	0.1600%	0.1600%
59	5,873	13	10.0	10.0	1.30	1.30	0.2214%	0.1700%	0.1700%
60	5,364	12	10.2	10.2	1.18	1.18	0.2237%	0.1900%	0.1900%
61	4,581	15	9.2	9.2	1.64	1.64	0.3274%	0.2000%	0.2000%
62	4,130	8	9.1	9.1	0.88	0.88	0.1937%	0.2200%	0.2200%
63	3,559	9	8.2	8.2	1.10	1.10	0.2529%	0.2300%	0.2300%
64	3,072	9	8.3	8.3	1.09	1.09	0.2930%	0.2700%	0.2700%
65	2,507	10	7.8	7.8	1.29	1.29	0.3989%	0.3100%	0.3100%
66	1,820	2	6.4	6.4	0.31	0.31	0.1099%	0.3500%	0.3500%
67	1,332	5	5.2	5.2	0.96	0.96	0.3754%	0.3900%	0.3900%
68	981	7	4.6	4.6	1.52	1.52	0.7136%	0.4700%	0.4700%
69	762	3	4.2	4.2	0.72	0.72	0.3937%	0.5500%	0.5500%
70	579	4	3.6	3.6	1.11	1.11	0.6908%	0.6200%	0.6200%
71	447	1	3.1	3.1	0.32	0.32	0.2237%	0.7000%	0.7000%
72	342	3	2.7	2.7	1.12	1.12	0.8772%	0.7800%	0.7800%
73	286	1	2.5	2.5	0.41	0.41	0.3497%	0.8600%	0.8600%
74	200	1	1.9	1.9	0.53	0.53	0.5000%	0.9400%	0.9400%
75	151	0	1.5	1.5	0.00	0.00	0.0000%	1.0100%	1.0100%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 1A — **Calendar Years 2020 - 2024**

Mortality Experience of Active General Employees — **Females**

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
76	103	2	1.1	1.1	1.78	1.78	1.9417%	1.0900%	1.0900%
77	83	0	1.0	1.0	0.00	0.00	0.0000%	1.1700%	1.1700%
78	62	1	0.8	0.8	1.29	1.29	1.6129%	1.2500%	1.2500%
79	40	0	0.5	0.5	0.00	0.00	0.0000%	1.3300%	1.3300%
80	29	0	0.4	0.4	0.00	0.00	0.0000%	1.4000%	1.4000%
81	22	0	0.3	0.3	0.00	0.00	0.0000%	1.4800%	1.4800%
82	12	0	0.2	0.2	0.00	0.00	0.0000%	1.5600%	1.5600%
83	10	1	0.2	0.2	6.41	6.41	10.0000%	1.5600%	1.5600%
84	9	0	0.1	0.1	0.00	0.00	0.0000%	1.5600%	1.5600%
85	9	0	0.1	0.1	0.00	0.00	0.0000%	1.5600%	1.5600%
86	4	0	0.1	0.1	0.00	0.00	0.0000%	1.5600%	1.5600%
87	5	0	0.1	0.1	0.00	0.00	0.0000%	1.5600%	1.5600%
88	5	0	0.1	0.1	0.00	0.00	0.0000%	1.5600%	1.5600%
89	5	0	0.1	0.1	0.00	0.00	0.0000%	1.5600%	1.5600%
90	3	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
91	2	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
92	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
93	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
94	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
95	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
96	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
97	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
98	1	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
99	1	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
100	1	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
101	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	*194,606*	*238*	*230.3*	*230.3*	*1.03*	*1.03*	*0.1223%*	*0.1183%*	*0.1183%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 1A **Calendar Years 2020 - 2024**

Mortality Experience of Active General Employees **Males**

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	5,152	5	3.1	3.1	1.62	1.62	0.0970%	0.0600%	0.0600%
25-29	11,273	6	6.8	6.8	0.89	0.89	0.0532%	0.0600%	0.0600%
30-34	16,778	12	11.7	11.7	1.02	1.02	0.0715%	0.0700%	0.0700%
35-39	20,596	15	19.0	19.0	0.79	0.79	0.0728%	0.0924%	0.0924%
40-44	23,028	21	29.0	29.0	0.72	0.72	0.0912%	0.1261%	0.1261%
45-49	23,888	34	37.9	37.9	0.90	0.90	0.1423%	0.1586%	0.1586%
50-54	28,857	71	63.6	63.6	1.12	1.12	0.2460%	0.2205%	0.2205%
55-59	29,939	105	80.2	80.2	1.31	1.31	0.3507%	0.2680%	0.2680%
60-64	20,999	89	68.2	68.2	1.30	1.30	0.4238%	0.3250%	0.3250%
65-69	8,798	44	43.0	43.0	1.02	1.02	0.5001%	0.4883%	0.4883%
70-74	2,725	30	25.1	25.1	1.20	1.20	1.1009%	0.9200%	0.9200%
75-79	888	9	17.5	17.5	0.51	0.51	1.0135%	1.9748%	1.9748%
80-84	191	3	5.3	5.3	0.57	0.57	1.5707%	2.7500%	2.7500%
85-89	34	1	0.9	0.9	1.07	1.07	2.9412%	2.7500%	2.7500%
90-94	10	0	0.3	0.3	0.00	0.00	0.0000%	2.7500%	2.7500%
95-99	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100 and over	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*193,156*	*445*	*411.7*	*411.7*	*1.08*	*1.08*	*0.2304%*	*0.2131%*	*0.2131%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 1A **Calendar Years 2020 - 2024**

Mortality Experience of Active General Employees **Females**

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	3,999	1	1.2	1.2	0.84	0.84	0.0250%	0.0299%	0.0299%
25-29	10,869	2	3.3	3.3	0.61	0.61	0.0184%	0.0300%	0.0300%
30-34	16,837	5	5.8	5.8	0.86	0.86	0.0297%	0.0343%	0.0343%
35-39	21,499	5	10.0	10.0	0.50	0.50	0.0233%	0.0463%	0.0463%
40-44	24,908	16	15.5	15.5	1.03	1.03	0.0642%	0.0621%	0.0621%
45-49	25,727	25	24.8	24.8	1.01	1.01	0.0972%	0.0963%	0.0963%
50-54	30,442	40	33.5	33.5	1.19	1.19	0.1314%	0.1100%	0.1100%
55-59	29,806	50	42.8	42.8	1.17	1.17	0.1678%	0.1437%	0.1437%
60-64	20,706	53	44.9	44.9	1.18	1.18	0.2560%	0.2169%	0.2169%
65-69	7,402	27	28.1	28.1	0.96	0.96	0.3648%	0.3801%	0.3801%
70-74	1,854	10	13.7	13.7	0.73	0.73	0.5394%	0.7403%	0.7403%
75-79	439	3	4.9	4.9	0.61	0.61	0.6834%	1.1221%	1.1221%
80-84	82	1	1.2	1.2	0.82	0.82	1.2195%	1.4820%	1.4820%
85-89	28	0	0.4	0.4	0.00	0.00	0.0000%	1.5600%	1.5600%
90-94	5	0	0.1	0.1	0.00	0.00	0.0000%	1.5600%	1.5600%
95-99	2	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
100 and over	1	0	0.0	0.0	0.00	0.00	0.0000%	1.5600%	1.5600%
Total	*194,606*	*238*	*230.3*	*230.3*	*1.03*	*1.03*	*0.1223%*	*0.1183%*	*0.1183%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 1B

Mortality Experience of Active General Employees **Males**

Year	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	40,213	95	84.2	84.2	1.13	1.13	0.2362%	0.2095%	0.2095%
2021	39,445	121	83.6	83.6	1.45	1.45	0.3068%	0.2119%	0.2119%
2022	38,192	82	81.6	81.6	1.01	1.01	0.2147%	0.2135%	0.2135%
2023	37,458	72	80.7	80.7	0.89	0.89	0.1922%	0.2154%	0.2154%
2024	37,848	75	81.6	81.6	0.92	0.92	0.1982%	0.2157%	0.2157%
Total	*193,156*	*445*	*411.7*	*411.7*	*1.08*	*1.08*	*0.2304%*	*0.2131%*	*0.2131%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 1B

Mortality Experience of Active General Employees **Females**

Year	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	40,651	34	46.7	46.7	0.73	0.73	0.0836%	0.1149%	0.1149%
2021	39,887	62	46.8	46.8	1.32	1.32	0.1554%	0.1174%	0.1174%
2022	38,252	39	45.6	45.6	0.85	0.85	0.1020%	0.1193%	0.1193%
2023	37,685	59	45.3	45.3	1.30	1.30	0.1566%	0.1202%	0.1202%
2024	38,131	44	45.8	45.8	0.96	0.96	0.1154%	0.1200%	0.1200%
Total	*194,606*	*238*	*230.3*	*230.3*	*1.03*	*1.03*	*0.1223%*	*0.1183%*	*0.1183%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 2A **Calendar Years 2020 - 2024**

Mortality Experience of Non Disabled Annuitants and Survivors **Males**

Age	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
30	16,318	0	8.4	7.3	0.00	0.00	0.0000%	0.0512%	0.0450%
31	20,248	0	11.2	9.7	0.00	0.00	0.0000%	0.0553%	0.0481%
32	25,581	0	15.1	13.1	0.00	0.00	0.0000%	0.0591%	0.0510%
33	33,642	0	21.1	18.1	0.00	0.00	0.0000%	0.0627%	0.0537%
34	47,684	0	31.4	26.8	0.00	0.00	0.0000%	0.0659%	0.0562%
35	62,210	0	43.5	37.0	0.00	0.00	0.0000%	0.0700%	0.0595%
36	69,080	274	50.8	43.1	5.40	6.36	0.3969%	0.0735%	0.0624%
37	76,668	680	58.5	49.8	11.62	13.66	0.8872%	0.0763%	0.0649%
38	105,524	811	84.2	72.0	9.63	11.27	0.7688%	0.0798%	0.0682%
39	125,136	132	103.2	88.8	1.28	1.48	0.1054%	0.0825%	0.0710%
40	138,506	120	118.8	103.2	1.01	1.16	0.0868%	0.0858%	0.0745%
41	157,556	130	139.1	122.3	0.93	1.06	0.0822%	0.0883%	0.0776%
42	183,483	1,011	167.8	149.6	6.03	6.76	0.5509%	0.0914%	0.0815%
43	218,011	161	205.3	185.9	0.78	0.86	0.0737%	0.0941%	0.0853%
44	248,066	1,089	242.4	223.2	4.49	4.88	0.4391%	0.0977%	0.0900%
45	331,686	118	338.9	317.5	0.35	0.37	0.0356%	0.1022%	0.0957%
46	385,394	4,029	415.1	395.5	9.71	10.19	1.0455%	0.1077%	0.1026%
47	583,304	469	661.9	640.9	0.71	0.73	0.0805%	0.1135%	0.1099%
48	1,265,133	1,959	1,537.6	1,511.3	1.27	1.30	0.1548%	0.1215%	0.1195%
49	2,645,694	8,695	3,441.8	3,426.8	2.53	2.54	0.3287%	0.1301%	0.1295%
50	5,094,459	9,507	14,195.7	14,285.5	0.67	0.67	0.1866%	0.2786%	0.2804%
51	8,553,540	13,477	25,619.2	25,996.6	0.53	0.52	0.1576%	0.2995%	0.3039%
52	10,789,168	35,857	34,942.4	35,667.7	1.03	1.01	0.3323%	0.3239%	0.3306%
53	12,688,987	41,361	44,518.6	45,607.2	0.93	0.91	0.3260%	0.3508%	0.3594%
54	13,422,908	39,238	51,318.4	52,642.0	0.76	0.75	0.2923%	0.3823%	0.3922%
55	13,943,881	65,305	58,079.1	59,541.3	1.12	1.10	0.4683%	0.4165%	0.4270%
56	14,438,047	46,367	65,579.4	67,089.0	0.71	0.69	0.3211%	0.4542%	0.4647%
57	14,687,293	67,988	72,728.4	74,156.7	0.93	0.92	0.4629%	0.4952%	0.5049%
58	15,136,819	98,474	81,572.1	82,816.4	1.21	1.19	0.6506%	0.5389%	0.5471%
59	16,110,975	86,896	94,518.0	95,499.6	0.92	0.91	0.5394%	0.5867%	0.5928%
60	18,305,122	101,158	116,300.7	116,968.9	0.87	0.86	0.5526%	0.6353%	0.6390%
61	21,244,626	158,407	145,753.7	145,962.2	1.09	1.09	0.7456%	0.6861%	0.6871%
62	22,523,178	196,015	166,566.2	166,221.8	1.18	1.18	0.8703%	0.7395%	0.7380%
63	24,123,544	163,200	191,610.4	190,755.8	0.85	0.86	0.6765%	0.7943%	0.7907%
64	24,824,151	182,074	211,908.2	210,751.4	0.86	0.86	0.7335%	0.8536%	0.8490%
65	25,772,590	286,030	236,907.3	235,706.8	1.21	1.21	1.1098%	0.9192%	0.9146%
66	27,309,129	304,148	271,370.7	270,479.8	1.12	1.12	1.1137%	0.9937%	0.9904%
67	29,081,797	294,671	313,816.5	313,786.9	0.94	0.94	1.0133%	1.0791%	1.0790%
68	30,091,260	410,925	354,186.7	355,607.6	1.16	1.16	1.3656%	1.1770%	1.1818%
69	30,778,107	411,693	397,176.8	400,650.5	1.04	1.03	1.3376%	1.2905%	1.3017%
70	31,879,152	529,188	452,534.2	459,015.3	1.17	1.15	1.6600%	1.4195%	1.4399%
71	32,638,829	587,901	511,216.4	521,250.6	1.15	1.13	1.8012%	1.5663%	1.5970%
72	33,758,050	658,340	586,002.4	600,392.1	1.12	1.10	1.9502%	1.7359%	1.7785%
73	35,332,868	722,869	681,142.1	700,961.9	1.06	1.03	2.0459%	1.9278%	1.9839%
74	34,189,292	844,220	734,704.5	758,749.9	1.15	1.11	2.4693%	2.1489%	2.2193%
75	31,865,921	953,175	765,364.6	792,484.9	1.25	1.20	2.9912%	2.4018%	2.4869%
76	29,223,927	803,341	786,341.4	815,764.5	1.02	0.98	2.7489%	2.6907%	2.7914%
77	26,207,533	923,240	791,674.9	822,208.3	1.17	1.12	3.5228%	3.0208%	3.1373%
78	21,484,666	789,210	730,129.1	758,594.6	1.08	1.04	3.6734%	3.3984%	3.5309%
79	19,157,853	863,028	733,396.1	761,835.7	1.18	1.13	4.5048%	3.8282%	3.9766%
80	17,405,511	885,943	751,745.8	780,503.9	1.18	1.14	5.0900%	4.3190%	4.4842%
81	15,197,153	790,738	741,247.8	768,907.1	1.07	1.03	5.2032%	4.8775%	5.0595%
82	13,058,761	691,723	719,625.2	745,801.4	0.96	0.93	5.2970%	5.5107%	5.7111%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 2A **Calendar Years 2020 - 2024**

Mortality Experience of Non Disabled Annuitants and Survivors **Males**

Age	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
83	11,231,194	729,877	698,996.1	723,619.9	1.04	1.01	6.4987%	6.2237%	6.4429%
84	9,729,519	694,916	682,929.8	706,205.2	1.02	0.98	7.1423%	7.0192%	7.2584%
85	8,391,474	677,806	663,279.6	685,126.2	1.02	0.99	8.0773%	7.9042%	8.1646%
86	7,111,742	715,910	631,351.5	651,359.5	1.13	1.10	10.0666%	8.8776%	9.1589%
87	5,875,223	612,579	583,929.4	601,768.0	1.05	1.02	10.4265%	9.9388%	10.2425%
88	5,134,301	637,520	569,613.0	586,424.0	1.12	1.09	12.4169%	11.0943%	11.4217%
89	4,484,891	753,013	553,363.3	569,236.5	1.36	1.32	16.7900%	12.3384%	12.6923%
90	3,568,777	574,685	488,053.9	501,700.3	1.18	1.15	16.1031%	13.6757%	14.0580%
91	2,813,139	508,436	424,380.0	436,026.7	1.20	1.17	18.0736%	15.0856%	15.4997%
92	2,624,892	440,580	434,684.0	446,478.7	1.01	0.99	16.7847%	16.5601%	17.0094%
93	1,739,495	394,984	314,514.2	323,080.5	1.26	1.22	22.7068%	18.0808%	18.5732%
94	1,226,847	320,840	241,029.4	247,693.9	1.33	1.30	26.1516%	19.6462%	20.1895%
95	884,150	219,373	187,848.6	193,217.3	1.17	1.14	24.8117%	21.2462%	21.8535%
96	645,323	190,107	148,729.4	152,764.9	1.28	1.24	29.4592%	23.0473%	23.6726%
97	425,564	137,468	105,979.4	108,712.8	1.30	1.26	32.3024%	24.9033%	25.5456%
98	310,905	95,979	83,435.1	85,458.2	1.15	1.12	30.8709%	26.8363%	27.4869%
99	188,315	66,689	54,273.7	55,506.0	1.23	1.20	35.4137%	28.8207%	29.4750%
100	107,288	40,625	33,082.4	33,792.8	1.23	1.20	37.8650%	30.8352%	31.4973%
101	60,779	17,055	19,980.5	20,380.9	0.85	0.84	28.0602%	32.8739%	33.5326%
102	37,362	22,270	13,043.8	13,285.2	1.71	1.68	59.6055%	34.9124%	35.5584%
103	9,486	2,197	3,502.3	3,561.8	0.63	0.62	23.1647%	36.9207%	37.5473%
104	11,422	5,043	4,441.4	4,510.9	1.14	1.12	44.1503%	38.8857%	39.4941%
105	2,633	1,552	1,074.4	1,089.7	1.44	1.42	58.9411%	40.8031%	41.3833%
106	1,081	0	461.2	467.1	0.00	0.00	0.0000%	42.6620%	43.2079%
107	787	787	349.8	353.8	2.25	2.22	100.0000%	44.4445%	44.9456%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	46.1563%	46.6067%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	47.7553%	48.1681%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	49.0779%	49.4278%
111	0	0	0.0	0.0	0.00	0.00	0.0000%	49.2650%	49.5418%
112	0	0	0.0	0.0	0.00	0.00	0.0000%	49.4478%	49.6560%
113	0	0	0.0	0.0	0.00	0.00	0.0000%	49.6213%	49.7705%
114	0	0	0.0	0.0	0.00	0.00	0.0000%	49.8103%	49.8851%
115	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	50.0000%
116	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	50.0000%
117	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	50.0000%
118	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	50.0000%
119	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	50.0000%
120	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	*793,800,160*	*20,938,433*	*18,883,864.9*	*19,405,972.2*	*1.11*	*1.08*	*2.6377%*	*2.3789%*	*2.4447%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 2A **Calendar Years 2020 - 2024**

Mortality Experience of Non Disabled Annuitants and Survivors **Females**

Age	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
30	20,469	0	4.6	4.1	0.00	0.00	0.0000%	0.0224%	0.0198%
31	27,314	0	6.9	6.1	0.00	0.00	0.0000%	0.0253%	0.0223%
32	27,954	0	7.5	6.6	0.00	0.00	0.0000%	0.0268%	0.0235%
33	32,658	37	9.6	8.4	3.80	4.33	0.1118%	0.0294%	0.0258%
34	40,714	0	13.0	11.4	0.00	0.00	0.0000%	0.0318%	0.0279%
35	47,509	0	16.1	14.2	0.00	0.00	0.0000%	0.0339%	0.0299%
36	59,762	239	22.2	19.6	10.80	12.21	0.4005%	0.0371%	0.0328%
37	72,476	0	27.9	24.9	0.00	0.00	0.0000%	0.0385%	0.0343%
38	89,948	0	36.8	33.1	0.00	0.00	0.0000%	0.0409%	0.0368%
39	109,768	208	47.2	42.8	4.41	4.86	0.1896%	0.0430%	0.0390%
40	114,572	42	52.6	48.3	0.80	0.87	0.0367%	0.0459%	0.0422%
41	134,379	213	63.7	59.4	3.34	3.59	0.1584%	0.0474%	0.0442%
42	177,372	155	88.6	83.6	1.75	1.86	0.0876%	0.0499%	0.0472%
43	202,131	536	105.8	101.4	5.06	5.28	0.2649%	0.0524%	0.0502%
44	229,205	104	128.0	124.3	0.81	0.84	0.0454%	0.0558%	0.0542%
45	262,680	611	156.1	153.7	3.91	3.97	0.2325%	0.0594%	0.0585%
46	287,086	551	181.7	180.9	3.03	3.04	0.1918%	0.0633%	0.0630%
47	364,477	187	246.1	247.5	0.76	0.75	0.0512%	0.0675%	0.0679%
48	457,296	531	334.5	338.9	1.59	1.57	0.1162%	0.0731%	0.0741%
49	635,121	602	1,346.9	1,372.1	0.45	0.44	0.0947%	0.2121%	0.2160%
50	977,957	2,411	2,201.7	2,249.4	1.10	1.07	0.2466%	0.2251%	0.2300%
51	1,405,745	3,800	3,394.6	3,469.2	1.12	1.10	0.2703%	0.2415%	0.2468%
52	1,651,656	7,904	4,277.4	4,363.6	1.85	1.81	0.4786%	0.2590%	0.2642%
53	2,187,386	6,498	6,064.8	6,164.1	1.07	1.05	0.2971%	0.2773%	0.2818%
54	2,767,558	1,522	8,217.6	8,307.9	0.19	0.18	0.0550%	0.2969%	0.3002%
55	3,461,841	4,076	10,983.1	11,037.4	0.37	0.37	0.1177%	0.3173%	0.3188%
56	4,390,189	16,077	14,872.4	14,853.7	1.08	1.08	0.3662%	0.3388%	0.3383%
57	5,546,950	13,296	19,959.6	19,815.5	0.67	0.67	0.2397%	0.3598%	0.3572%
58	7,100,263	26,611	27,200.2	26,866.7	0.98	0.99	0.3748%	0.3831%	0.3784%
59	8,516,866	36,244	34,757.1	34,211.2	1.04	1.06	0.4256%	0.4081%	0.4017%
60	11,172,242	35,666	48,791.9	47,939.2	0.73	0.74	0.3192%	0.4367%	0.4291%
61	14,758,289	65,676	69,158.5	67,962.7	0.95	0.97	0.4450%	0.4686%	0.4605%
62	16,559,566	88,956	83,730.9	82,487.6	1.06	1.08	0.5372%	0.5056%	0.4981%
63	18,421,913	101,322	100,597.5	99,508.9	1.01	1.02	0.5500%	0.5461%	0.5402%
64	20,189,519	81,292	119,681.5	119,085.2	0.68	0.68	0.4026%	0.5928%	0.5898%
65	22,361,107	166,576	144,401.3	144,661.5	1.15	1.15	0.7449%	0.6458%	0.6469%
66	24,527,637	143,790	173,188.5	174,808.3	0.83	0.82	0.5862%	0.7061%	0.7127%
67	26,066,580	179,065	202,450.4	205,907.2	0.88	0.87	0.6870%	0.7767%	0.7899%
68	27,210,741	242,915	233,640.6	239,306.4	1.04	1.02	0.8927%	0.8586%	0.8795%
69	27,521,731	292,635	262,300.5	270,314.0	1.12	1.08	1.0633%	0.9531%	0.9822%
70	26,650,647	331,609	283,213.7	293,397.6	1.17	1.13	1.2443%	1.0627%	1.1009%
71	25,712,395	262,048	305,759.3	317,968.6	0.86	0.82	1.0192%	1.1892%	1.2366%
72	24,469,755	335,095	326,592.3	340,421.6	1.03	0.98	1.3694%	1.3347%	1.3912%
73	23,301,523	384,738	349,764.3	365,016.0	1.10	1.05	1.6511%	1.5010%	1.5665%
74	20,998,188	424,872	355,060.3	370,617.7	1.20	1.15	2.0234%	1.6909%	1.7650%
75	19,024,680	387,719	362,721.0	378,232.6	1.07	1.03	2.0380%	1.9066%	1.9881%
76	16,724,326	366,603	359,961.1	374,825.5	1.02	0.98	2.1920%	2.1523%	2.2412%
77	15,123,651	396,706	367,810.8	382,305.4	1.08	1.04	2.6231%	2.4320%	2.5279%
78	12,684,580	404,565	348,906.2	361,853.1	1.16	1.12	3.1894%	2.7506%	2.8527%
79	11,705,604	369,583	364,647.3	377,341.6	1.01	0.98	3.1573%	3.1152%	3.2236%
80	10,792,921	420,881	381,160.6	393,478.3	1.10	1.07	3.8996%	3.5316%	3.6457%
81	9,976,550	436,339	399,749.3	411,838.1	1.09	1.06	4.3736%	4.0069%	4.1281%
82	8,704,599	411,143	395,966.4	407,080.4	1.04	1.01	4.7233%	4.5489%	4.6766%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 2A **Calendar Years 2020 - 2024**

Mortality Experience of Non Disabled Annuitants and Survivors **Females**

Age	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
83	7,835,544	435,973	404,923.8	415,578.2	1.08	1.05	5.5640%	5.1678%	5.3038%
84	6,891,819	371,525	404,690.0	414,712.5	0.92	0.90	5.3908%	5.8720%	6.0175%
85	6,246,782	435,498	416,987.5	426,670.9	1.04	1.02	6.9716%	6.6752%	6.8303%
86	5,423,112	368,936	411,138.5	420,263.4	0.90	0.88	6.8030%	7.5812%	7.7495%
87	4,771,758	395,084	410,135.9	418,775.5	0.96	0.94	8.2796%	8.5951%	8.7761%
88	4,083,927	451,554	396,576.4	404,686.3	1.14	1.12	11.0569%	9.7107%	9.9092%
89	3,543,033	427,495	386,895.8	394,649.1	1.10	1.08	12.0658%	10.9199%	11.1387%
90	2,996,672	393,100	365,615.4	372,867.2	1.08	1.05	13.1179%	12.2007%	12.4427%
91	2,683,712	387,588	363,160.9	370,326.7	1.07	1.05	14.4422%	13.5320%	13.7990%
92	2,298,498	386,351	342,785.8	349,619.6	1.13	1.11	16.8088%	14.9135%	15.2108%
93	1,919,564	308,095	313,812.4	320,164.9	0.98	0.96	16.0502%	16.3481%	16.6790%
94	1,596,670	311,220	284,907.7	290,791.8	1.09	1.07	19.4918%	17.8439%	18.2124%
95	1,243,448	286,219	242,263.8	247,043.8	1.18	1.16	23.0182%	19.4832%	19.8676%
96	906,497	202,460	192,426.5	196,026.4	1.05	1.03	22.3344%	21.2275%	21.6246%
97	662,745	188,170	152,916.1	155,604.9	1.23	1.21	28.3926%	23.0731%	23.4788%
98	446,002	119,813	111,576.0	113,412.6	1.07	1.06	26.8638%	25.0169%	25.4287%
99	294,743	92,359	79,723.7	80,954.7	1.16	1.14	31.3353%	27.0485%	27.4662%
100	188,981	63,013	55,092.2	55,886.9	1.14	1.13	33.3435%	29.1522%	29.5727%
101	120,912	52,067	37,812.6	38,319.6	1.38	1.36	43.0620%	31.2728%	31.6921%
102	62,055	28,141	20,730.1	20,984.9	1.36	1.34	45.3493%	33.4062%	33.8167%
103	32,924	15,783	11,693.5	11,825.3	1.35	1.33	47.9381%	35.5163%	35.9167%
104	17,847	8,615	6,710.2	6,779.7	1.28	1.27	48.2696%	37.5986%	37.9883%
105	11,024	5,167	4,370.7	4,411.5	1.18	1.17	46.8711%	39.6450%	40.0158%
106	10,127	6,827	4,214.5	4,249.2	1.62	1.61	67.4191%	41.6179%	41.9609%
107	3,534	1,087	1,537.8	1,548.7	0.71	0.70	30.7695%	43.5189%	43.8292%
108	2,446	1,983	1,109.1	1,115.9	1.79	1.78	81.0590%	45.3398%	45.6174%
109	1,537	463	723.2	726.9	0.64	0.64	30.1485%	47.0548%	47.2956%
110	1,074	1,074	522.6	524.8	2.05	2.05	100.0000%	48.6811%	48.8812%
111	0	0	0.0	0.0	0.00	0.00	0.0000%	49.6015%	49.7555%
112	0	0	0.0	0.0	0.00	0.00	0.0000%	49.7356%	49.8402%
113	0	0	0.0	0.0	0.00	0.00	0.0000%	49.8652%	49.9151%
114	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	50.0000%
115	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	50.0000%
116	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	50.0000%
117	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	50.0000%
118	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	50.0000%
119	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
120	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	*530,539,164*	*12,198,566*	*11,599,159.0*	*11,899,125.0*	*1.05*	*1.03*	*2.2993%*	*2.1863%*	*2.2428%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 2A **Calendar Years 2020 - 2024**

Mortality Experience of Non Disabled Annuitants and Survivors **Males**

Age	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	67,920	2,633	25.8	24.2	102.18	108.70	3.8770%	0.0379%	0.0357%
25-29	57,633	123	24.0	21.7	5.13	5.69	0.2138%	0.0417%	0.0376%
30-34	143,472	0	87.2	75.0	0.00	0.00	0.0000%	0.0608%	0.0523%
35-39	438,617	1,898	340.3	290.7	5.58	6.53	0.4326%	0.0776%	0.0663%
40-44	945,622	2,511	873.2	784.1	2.88	3.20	0.2655%	0.0923%	0.0829%
45-49	5,211,211	15,271	6,395.3	6,291.9	2.39	2.43	0.2930%	0.1227%	0.1207%
50-54	50,549,063	139,440	170,594.4	174,199.1	0.82	0.80	0.2758%	0.3375%	0.3446%
55-59	74,317,014	365,029	372,476.9	379,103.0	0.98	0.96	0.4912%	0.5012%	0.5101%
60-64	111,020,621	800,853	832,139.2	830,660.2	0.96	0.96	0.7214%	0.7495%	0.7482%
65-69	143,032,883	1,707,469	1,573,457.9	1,576,231.6	1.09	1.08	1.1938%	1.1001%	1.1020%
70-74	167,798,192	3,342,520	2,965,599.5	3,040,369.8	1.13	1.10	1.9920%	1.7674%	1.8119%
75-79	127,939,900	4,331,994	3,806,906.1	3,950,888.0	1.14	1.10	3.3860%	2.9755%	3.0881%
80-84	66,622,138	3,793,196	3,594,544.8	3,725,037.6	1.06	1.02	5.6936%	5.3954%	5.5913%
85-89	30,997,632	3,396,829	3,001,536.7	3,093,914.1	1.13	1.10	10.9583%	9.6831%	9.9811%
90-94	11,973,149	2,239,525	1,902,661.4	1,954,980.0	1.18	1.15	18.7046%	15.8911%	16.3280%
95-99	2,454,257	709,616	580,266.3	595,659.2	1.22	1.19	28.9137%	23.6433%	24.2705%
100 and over	230,838	89,528	75,936.0	77,442.1	1.18	1.16	38.7840%	32.8958%	33.5483%
Total	*793,800,160*	*20,938,433*	*18,883,864.9*	*19,405,972.2*	*1.11*	*1.08*	*2.6377%*	*2.3789%*	*2.4447%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 2A — **Calendar Years 2020 - 2024**

Mortality Experience of Non Disabled Annuitants and Survivors — **Females**

Age	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	97,021	656	13.2	12.3	49.71	53.34	0.6757%	0.0136%	0.0127%
25-29	87,106	0	14.6	13.1	0.00	0.00	0.0000%	0.0167%	0.0150%
30-34	149,110	37	41.5	36.5	0.88	1.00	0.0245%	0.0278%	0.0245%
35-39	379,463	447	150.2	134.6	2.98	3.33	0.1179%	0.0396%	0.0355%
40-44	857,660	1,050	438.7	417.1	2.39	2.52	0.1224%	0.0511%	0.0486%
45-49	2,006,660	2,481	2,265.3	2,293.1	1.10	1.08	0.1236%	0.1129%	0.1143%
50-54	8,990,302	22,136	24,156.1	24,554.2	0.92	0.90	0.2462%	0.2687%	0.2731%
55-59	29,016,108	96,304	107,772.3	106,784.5	0.89	0.90	0.3319%	0.3714%	0.3680%
60-64	81,101,529	372,912	421,960.3	416,983.5	0.88	0.89	0.4598%	0.5203%	0.5142%
65-69	127,687,797	1,024,981	1,015,981.4	1,034,997.5	1.01	0.99	0.8027%	0.7957%	0.8106%
70-74	121,132,509	1,738,363	1,620,390.0	1,687,421.5	1.07	1.03	1.4351%	1.3377%	1.3930%
75-79	75,262,841	1,925,175	1,804,046.3	1,874,558.2	1.07	1.03	2.5579%	2.3970%	2.4907%
80-84	44,201,433	2,075,862	1,986,490.1	2,042,687.6	1.04	1.02	4.6964%	4.4942%	4.6213%
85-89	24,068,612	2,078,567	2,021,734.2	2,065,045.2	1.03	1.01	8.6360%	8.3999%	8.5798%
90-94	11,495,117	1,786,354	1,670,282.3	1,703,770.2	1.07	1.05	15.5401%	14.5304%	14.8217%
95-99	3,553,435	889,022	778,906.1	793,042.5	1.14	1.12	25.0187%	21.9198%	22.3176%
100 and over	452,461	184,221	144,516.4	146,373.4	1.27	1.26	40.7153%	31.9401%	32.3505%
Total	*530,539,164*	*12,198,566*	*11,599,159.0*	*11,899,125.0*	*1.05*	*1.03*	*2.2993%*	*2.1863%*	*2.2428%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 2B

Mortality Experience of Non Disabled Annuitants and Survivors **Males**

Year	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	149,588,126	3,868,791	3,392,820.4	3,483,688.0	1.14	1.11	2.5863%	2.2681%	2.3289%
2021	153,824,152	4,256,716	3,564,919.2	3,662,043.1	1.19	1.16	2.7673%	2.3175%	2.3807%
2022	158,896,974	4,307,935	3,749,317.1	3,853,022.7	1.15	1.12	2.7111%	2.3596%	2.4249%
2023	163,542,640	4,156,880	3,956,659.3	4,067,543.8	1.05	1.02	2.5418%	2.4193%	2.4871%
2024	167,948,269	4,348,111	4,220,148.9	4,339,674.7	1.03	1.00	2.5890%	2.5128%	2.5839%
Total	*793,800,160*	*20,938,433*	*18,883,864.9*	*19,405,972.2*	*1.11*	*1.08*	*2.6377%*	*2.3789%*	*2.4447%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 2B

Mortality Experience of Non Disabled Annuitants and Survivors **Females**

Year	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	98,777,825	2,217,441	2,058,335.3	2,109,680.3	1.08	1.05	2.2449%	2.0838%	2.1358%
2021	101,978,374	2,537,828	2,171,610.5	2,226,933.2	1.17	1.14	2.4886%	2.1295%	2.1837%
2022	106,312,533	2,429,587	2,301,655.0	2,361,287.5	1.06	1.03	2.2853%	2.1650%	2.2211%
2023	109,984,813	2,429,214	2,450,893.2	2,515,185.0	0.99	0.97	2.2087%	2.2284%	2.2868%
2024	113,485,619	2,584,497	2,616,665.0	2,686,038.9	0.99	0.96	2.2774%	2.3057%	2.3669%
Total	*530,539,164*	*12,198,566*	*11,599,159.0*	*11,899,125.0*	*1.05*	*1.03*	*2.2993%*	*2.1863%*	*2.2428%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 3A **Calendar Years 2020 - 2024**

Mortality Experience of Disabled Annuitants **Males**

Age	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
30	6,727	0	38.9	24.3	0.00	0.00	0.0000%	0.5779%	0.3608%
31	10,306	0	63.2	38.4	0.00	0.00	0.0000%	0.6136%	0.3722%
32	24,797	0	161.1	95.8	0.00	0.00	0.0000%	0.6496%	0.3863%
33	33,147	0	226.1	133.6	0.00	0.00	0.0000%	0.6821%	0.4030%
34	34,557	0	247.0	146.2	0.00	0.00	0.0000%	0.7146%	0.4230%
35	39,151	0	292.1	174.6	0.00	0.00	0.0000%	0.7460%	0.4460%
36	49,639	1,499	385.7	234.1	3.89	6.40	3.0196%	0.7770%	0.4716%
37	56,591	0	456.9	282.7	0.00	0.00	0.0000%	0.8073%	0.4996%
38	69,686	0	584.0	369.0	0.00	0.00	0.0000%	0.8380%	0.5295%
39	90,653	1,495	789.0	510.0	1.90	2.93	1.6494%	0.8703%	0.5625%
40	114,807	848	1,040.1	685.6	0.82	1.24	0.7384%	0.9059%	0.5972%
41	148,913	0	1,408.8	943.6	0.00	0.00	0.0000%	0.9460%	0.6336%
42	169,011	0	1,680.6	1,136.5	0.00	0.00	0.0000%	0.9944%	0.6724%
43	190,025	0	1,995.0	1,353.5	0.00	0.00	0.0000%	1.0498%	0.7123%
44	176,245	3,903	1,967.4	1,330.9	1.98	2.93	2.2145%	1.1163%	0.7552%
45	213,377	2,136	2,548.6	1,717.3	0.84	1.24	1.0010%	1.1944%	0.8048%
46	240,685	4,424	3,091.0	2,071.5	1.43	2.14	1.8380%	1.2842%	0.8607%
47	290,919	2,516	4,031.5	2,686.7	0.62	0.94	0.8650%	1.3858%	0.9235%
48	357,874	4,050	5,370.9	3,561.8	0.75	1.14	1.1316%	1.5008%	0.9953%
49	431,837	3,150	6,898.3	4,653.1	0.46	0.68	0.7294%	1.5974%	1.0775%
50	495,360	12,192	8,429.5	5,795.0	1.45	2.10	2.4612%	1.7017%	1.1699%
51	539,305	8,838	9,770.9	6,879.8	0.90	1.28	1.6387%	1.8118%	1.2757%
52	588,496	9,344	11,333.8	8,200.3	0.82	1.14	1.5877%	1.9259%	1.3934%
53	658,766	9,198	13,458.4	10,053.1	0.68	0.91	1.3962%	2.0430%	1.5261%
54	705,038	17,831	15,223.4	11,796.9	1.17	1.51	2.5290%	2.1592%	1.6732%
55	781,517	8,594	17,753.3	14,347.0	0.48	0.60	1.0997%	2.2716%	1.8358%
56	876,771	18,269	20,876.5	17,645.2	0.88	1.04	2.0837%	2.3811%	2.0125%
57	947,105	25,214	23,544.3	20,148.1	1.07	1.25	2.6622%	2.4859%	2.1273%
58	1,052,954	19,543	27,227.3	23,439.5	0.72	0.83	1.8560%	2.5858%	2.2261%
59	1,093,234	32,486	29,320.7	25,247.4	1.11	1.29	2.9715%	2.6820%	2.3094%
60	1,164,577	12,776	32,335.8	27,701.7	0.40	0.46	1.0970%	2.7766%	2.3787%
61	1,204,896	42,988	34,614.8	29,368.3	1.24	1.46	3.5678%	2.8728%	2.4374%
62	1,164,971	27,466	34,592.1	29,002.0	0.79	0.95	2.3577%	2.9694%	2.4895%
63	1,174,628	39,073	35,999.3	29,839.9	1.09	1.31	3.3265%	3.0647%	2.5404%
64	1,242,691	45,381	39,311.2	32,289.6	1.15	1.41	3.6519%	3.1634%	2.5984%
65	1,189,613	26,234	38,846.7	31,794.8	0.68	0.83	2.2052%	3.2655%	2.6727%
66	1,216,039	34,810	41,041.5	33,722.9	0.85	1.03	2.8626%	3.3750%	2.7732%
67	1,247,667	56,784	43,617.4	36,304.2	1.30	1.56	4.5512%	3.4959%	2.9098%
68	1,215,058	59,274	44,092.3	37,503.3	1.34	1.58	4.8782%	3.6288%	3.0865%
69	1,128,640	64,806	42,694.3	37,319.7	1.52	1.74	5.7419%	3.7828%	3.3066%
70	1,088,514	64,997	43,110.1	38,873.1	1.51	1.67	5.9712%	3.9605%	3.5712%
71	1,030,211	61,749	42,901.5	40,029.6	1.44	1.54	5.9938%	4.1643%	3.8856%
72	909,311	41,114	39,998.9	38,630.2	1.03	1.06	4.5214%	4.3988%	4.2483%
73	848,732	47,533	39,625.4	39,543.9	1.20	1.20	5.6004%	4.6688%	4.6592%
74	714,695	60,502	35,552.6	36,583.2	1.70	1.65	8.4654%	4.9745%	5.1187%
75	579,977	44,210	30,864.4	32,584.6	1.43	1.36	7.6227%	5.3217%	5.6183%
76	445,398	32,881	25,449.0	27,387.1	1.29	1.20	7.3824%	5.7138%	6.1489%
77	390,954	33,260	24,063.3	26,218.8	1.38	1.27	8.5075%	6.1550%	6.7064%
78	294,519	27,758	19,578.7	21,488.7	1.42	1.29	9.4247%	6.6477%	7.2962%
79	268,949	19,953	19,355.0	21,342.1	1.03	0.93	7.4188%	7.1965%	7.9353%
80	224,880	22,330	17,538.2	19,448.1	1.27	1.15	9.9297%	7.7989%	8.6482%
81	179,673	14,379	15,201.4	17,007.1	0.95	0.85	8.0028%	8.4606%	9.4656%
82	136,403	15,106	12,518.1	14,344.2	1.21	1.05	11.0742%	9.1773%	10.5161%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 3A — **Calendar Years 2020 - 2024**

Mortality Experience of Disabled Annuitants — **Males**

Age	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
83	103,023	14,356	10,251.2	12,075.4	1.40	1.19	13.9346%	9.9504%	11.7211%
84	77,747	10,712	8,383.0	10,142.8	1.28	1.06	13.7775%	10.7824%	13.0459%
85	63,096	11,275	7,364.7	9,144.0	1.53	1.23	17.8690%	11.6723%	14.4923%
86	54,566	7,445	6,892.8	8,757.8	1.08	0.85	13.6439%	12.6321%	16.0499%
87	48,110	10,037	6,652.8	8,500.5	1.51	1.18	20.8627%	13.8281%	17.6688%
88	33,359	7,643	5,053.6	6,443.7	1.51	1.19	22.9113%	15.1493%	19.3165%
89	28,295	5,475	4,667.4	5,935.0	1.17	0.92	19.3480%	16.4953%	20.9751%
90	24,413	9,871	4,357.4	5,530.7	2.27	1.78	40.4347%	17.8489%	22.6552%
91	14,562	5,460	2,795.3	3,547.0	1.95	1.54	37.4938%	19.1959%	24.3581%
92	12,281	600	2,523.8	3,214.5	0.24	0.19	4.8842%	20.5500%	26.1744%
93	12,539	3,051	2,749.0	3,520.7	1.11	0.87	24.3345%	21.9229%	28.0772%
94	9,738	2,604	2,289.3	2,929.1	1.14	0.89	26.7372%	23.5086%	30.0789%
95	6,575	2,265	1,655.3	2,116.0	1.37	1.07	34.4414%	25.1744%	32.1802%
96	2,528	536	681.6	868.7	0.79	0.62	21.1974%	26.9620%	34.3617%
97	2,929	1,316	845.2	1,071.4	1.56	1.23	44.9340%	28.8565%	36.5786%
98	1,026	1,026	316.2	397.3	3.24	2.58	100.0000%	30.8352%	38.7418%
99	0	0	0.0	0.0	0.00	0.00	0.0000%	32.8739%	40.8370%
100	0	0	0.0	0.0	0.00	0.00	0.0000%	34.9124%	42.8600%
101	0	0	0.0	0.0	0.00	0.00	0.0000%	36.9207%	44.7669%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	38.8857%	46.5780%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	40.8031%	48.2749%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	42.6620%	49.4525%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	44.4445%	49.5269%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	46.1563%	49.5964%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	47.7553%	49.6610%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	49.0779%	49.7356%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	49.2650%	49.8053%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	49.4478%	49.8801%
111	0	0	0.0	0.0	0.00	0.00	0.0000%	49.6213%	49.9450%
112	0	0	0.0	0.0	0.00	0.00	0.0000%	49.8103%	49.9700%
113	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	49.9850%
114	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	50.0000%
115	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	50.0000%
116	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	100.0000%
117	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	100.0000%
118	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
119	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
120	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	*30,046,594*	*1,174,560*	*1,030,612.7*	*948,234.7*	*1.14*	*1.24*	*3.9091%*	*3.4300%*	*3.1559%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 3A — **Calendar Years 2020 - 2024**

Mortality Experience of Disabled Annuitants — **Females**

Age	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
30	5,049	0	21.8	11.2	0.00	0.00	0.0000%	0.4318%	0.2227%
31	4,984	0	23.6	12.0	0.00	0.00	0.0000%	0.4731%	0.2410%
32	9,137	0	46.9	23.8	0.00	0.00	0.0000%	0.5138%	0.2609%
33	9,332	0	51.8	26.2	0.00	0.00	0.0000%	0.5547%	0.2807%
34	13,793	1,256	82.0	41.4	15.32	30.33	9.1082%	0.5947%	0.3004%
35	16,719	0	106.0	53.4	0.00	0.00	0.0000%	0.6341%	0.3196%
36	30,861	0	207.7	104.8	0.00	0.00	0.0000%	0.6731%	0.3395%
37	51,436	0	366.2	184.6	0.00	0.00	0.0000%	0.7119%	0.3590%
38	69,036	0	518.4	261.7	0.00	0.00	0.0000%	0.7509%	0.3790%
39	74,008	0	585.0	296.8	0.00	0.00	0.0000%	0.7905%	0.4010%
40	88,297	1,063	734.3	374.1	1.45	2.84	1.2034%	0.8317%	0.4237%
41	95,093	1,057	833.3	427.7	1.27	2.47	1.1117%	0.8763%	0.4497%
42	98,045	1,218	908.0	470.6	1.34	2.59	1.2420%	0.9261%	0.4800%
43	106,305	1,306	1,044.1	544.8	1.25	2.40	1.2286%	0.9821%	0.5125%
44	143,175	878	1,497.1	788.3	0.59	1.11	0.6136%	1.0456%	0.5506%
45	157,554	1,840	1,763.4	932.3	1.04	1.97	1.1677%	1.1192%	0.5917%
46	175,034	801	2,109.2	1,119.0	0.38	0.72	0.4575%	1.2050%	0.6393%
47	218,676	0	2,852.2	1,508.3	0.00	0.00	0.0000%	1.3043%	0.6898%
48	258,222	4,774	3,658.0	1,929.0	1.31	2.47	1.8489%	1.4166%	0.7470%
49	316,728	6,856	4,697.6	2,573.1	1.46	2.66	2.1648%	1.4832%	0.8124%
50	351,854	4,074	5,481.3	3,120.7	0.74	1.31	1.1579%	1.5578%	0.8869%
51	403,657	2,332	6,619.4	3,919.0	0.35	0.60	0.5778%	1.6399%	0.9709%
52	457,433	1,908	7,889.5	4,879.0	0.24	0.39	0.4171%	1.7247%	1.0666%
53	517,798	4,582	9,364.6	6,079.4	0.49	0.75	0.8848%	1.8085%	1.1741%
54	564,180	8,014	10,638.4	7,291.5	0.75	1.10	1.4204%	1.8856%	1.2924%
55	633,460	4,920	12,369.5	9,017.3	0.40	0.55	0.7767%	1.9527%	1.4235%
56	672,792	9,971	13,502.4	10,529.1	0.74	0.95	1.4820%	2.0069%	1.5650%
57	797,387	16,201	16,331.5	13,683.2	0.99	1.18	2.0317%	2.0481%	1.7160%
58	895,853	27,933	18,622.5	15,757.3	1.50	1.77	3.1180%	2.0787%	1.7589%
59	998,904	13,336	20,973.4	17,913.6	0.64	0.74	1.3351%	2.0996%	1.7933%
60	1,067,800	16,033	22,605.2	19,453.9	0.71	0.82	1.5015%	2.1170%	1.8219%
61	1,153,329	22,017	24,609.5	21,275.9	0.89	1.03	1.9090%	2.1338%	1.8447%
62	1,139,505	17,070	24,552.0	21,266.9	0.70	0.80	1.4980%	2.1546%	1.8663%
63	1,199,728	30,879	26,173.5	22,684.5	1.18	1.36	2.5739%	2.1816%	1.8908%
64	1,230,089	25,642	27,324.9	23,652.8	0.94	1.08	2.0846%	2.2214%	1.9229%
65	1,241,114	23,909	28,250.6	24,445.4	0.85	0.98	1.9264%	2.2762%	1.9696%
66	1,242,432	44,282	29,198.7	25,300.5	1.52	1.75	3.5641%	2.3501%	2.0364%
67	1,269,519	34,754	31,049.3	27,059.6	1.12	1.28	2.7376%	2.4458%	2.1315%
68	1,221,842	51,777	31,352.7	27,638.6	1.65	1.87	4.2376%	2.5660%	2.2620%
69	1,170,473	35,586	31,738.5	28,464.9	1.12	1.25	3.0403%	2.7116%	2.4319%
70	1,114,281	35,079	32,148.6	29,458.6	1.09	1.19	3.1481%	2.8851%	2.6437%
71	1,045,931	31,258	32,302.4	30,365.7	0.97	1.03	2.9886%	3.0884%	2.9032%
72	927,203	51,622	30,819.4	29,800.4	1.67	1.73	5.5675%	3.3239%	3.2140%
73	858,344	31,378	30,854.4	30,721.4	1.02	1.02	3.6556%	3.5946%	3.5791%
74	756,863	46,973	29,544.0	30,257.8	1.59	1.55	6.2063%	3.9035%	3.9978%
75	648,774	43,378	27,585.4	28,949.3	1.57	1.50	6.6861%	4.2519%	4.4622%
76	539,139	23,279	25,035.1	26,762.9	0.93	0.87	4.3178%	4.6435%	4.9640%
77	456,235	24,134	23,186.4	25,029.9	1.04	0.96	5.2899%	5.0821%	5.4862%
78	355,748	25,216	19,812.5	21,393.9	1.27	1.18	7.0882%	5.5693%	6.0138%
79	278,848	17,287	17,032.6	18,270.7	1.01	0.95	6.1993%	6.1082%	6.5522%
80	241,495	21,521	16,180.2	17,204.8	1.33	1.25	8.9116%	6.7000%	7.1243%
81	195,370	10,732	14,360.4	15,150.6	0.75	0.71	5.4934%	7.3504%	7.7548%
82	175,101	17,607	14,110.5	14,857.0	1.25	1.19	10.0551%	8.0585%	8.4849%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 3A **Calendar Years 2020 - 2024**

Mortality Experience of Disabled Annuitants **Females**

Age	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
83	146,129	13,315	12,903.6	13,571.6	1.03	0.98	9.1117%	8.8303%	9.2874%
84	136,098	13,352	13,113.2	13,809.5	1.02	0.97	9.8103%	9.6351%	10.1467%
85	117,800	7,694	12,315.3	13,021.2	0.62	0.59	6.5316%	10.4544%	11.0537%
86	94,199	11,915	10,631.2	11,310.7	1.12	1.05	12.6482%	11.2859%	12.0072%
87	79,010	10,428	9,580.8	10,278.8	1.09	1.01	13.1981%	12.1260%	13.0094%
88	68,966	9,547	8,959.0	9,705.9	1.07	0.98	13.8436%	12.9904%	14.0735%
89	52,412	11,886	7,283.6	7,971.2	1.63	1.49	22.6782%	13.8968%	15.2086%
90	35,659	6,159	5,298.4	5,859.5	1.16	1.05	17.2710%	14.8587%	16.4321%
91	31,588	4,569	5,022.3	5,604.5	0.91	0.82	14.4640%	15.8993%	17.7427%
92	26,391	7,540	4,496.6	5,056.8	1.68	1.49	28.5681%	17.0380%	19.1610%
93	14,714	5,469	2,691.5	3,051.3	2.03	1.79	37.1704%	18.2922%	20.7379%
94	8,770	5,297	1,731.9	1,968.8	3.06	2.69	60.3964%	19.7483%	22.4498%
95	2,250	721	481.2	546.6	1.50	1.32	32.0276%	21.3857%	24.2914%
96	2,197	622	508.5	576.7	1.22	1.08	28.3139%	23.1486%	26.2494%
97	3,272	2,378	819.3	926.5	2.90	2.57	72.6753%	25.0380%	28.3142%
98	3,098	820	838.0	943.1	0.98	0.87	26.4580%	27.0485%	30.4416%
99	2,278	835	664.2	742.4	1.26	1.12	36.6398%	29.1522%	32.5830%
100	1,932	972	604.1	670.5	1.61	1.45	50.3280%	31.2728%	34.7143%
101	959	0	320.5	353.3	0.00	0.00	0.0000%	33.4062%	36.8215%
102	959	0	340.8	373.1	0.00	0.00	0.0000%	35.5163%	38.8883%
103	1,259	0	473.5	514.9	0.00	0.00	0.0000%	37.5986%	40.8850%
104	1,259	0	499.2	539.1	0.00	0.00	0.0000%	39.6450%	42.8136%
105	1,259	1,259	524.1	562.3	2.40	2.24	100.0000%	41.6179%	44.6496%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	43.5189%	46.3890%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	45.3398%	48.0243%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	47.0548%	49.5475%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	48.6811%	49.8103%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	49.6015%	49.8652%
111	0	0	0.0	0.0	0.00	0.00	0.0000%	49.7356%	49.9101%
112	0	0	0.0	0.0	0.00	0.00	0.0000%	49.8652%	49.9600%
113	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	49.9800%
114	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	49.9900%
115	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	50.0000%
116	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	50.0000%
117	0	0	0.0	0.0	0.00	0.00	0.0000%	50.0000%	100.0000%
118	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
119	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
120	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	*28,605,894*	*910,511*	*833,861.9*	*771,315.7*	*1.09*	*1.18*	*3.1829%*	*2.9150%*	*2.6964%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 3A | **Calendar Years 2020 - 2024**

Mortality Experience of Disabled Annuitants | **Males**

Age	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
25-29	3,317	0	17.9	11.7	0.00	0.00	0.0000%	0.5411%	0.3535%
30-34	109,534	0	736.3	438.2	0.00	0.00	0.0000%	0.6722%	0.4000%
35-39	305,720	2,994	2,507.6	1,570.4	1.19	1.91	0.9793%	0.8202%	0.5137%
40-44	799,001	4,751	8,091.8	5,450.1	0.59	0.87	0.5946%	1.0127%	0.6821%
45-49	1,534,692	16,276	21,940.2	14,690.4	0.74	1.11	1.0605%	1.4296%	0.9572%
50-54	2,986,964	57,402	58,216.1	42,725.2	0.99	1.34	1.9217%	1.9490%	1.4304%
55-59	4,751,581	104,106	118,722.1	100,827.1	0.88	1.03	2.1910%	2.4986%	2.1220%
60-64	5,951,764	167,685	176,853.3	148,201.5	0.95	1.13	2.8174%	2.9714%	2.4900%
65-69	5,997,018	241,907	210,292.2	176,644.9	1.15	1.37	4.0338%	3.5066%	2.9455%
70-74	4,591,463	275,894	201,188.5	193,659.9	1.37	1.42	6.0089%	4.3818%	4.2178%
75-79	1,979,797	158,062	119,310.5	129,021.2	1.32	1.23	7.9837%	6.0264%	6.5169%
80-84	721,725	76,882	63,891.9	73,017.6	1.20	1.05	10.6525%	8.8527%	10.1171%
85-89	227,426	41,874	30,631.3	38,781.0	1.37	1.08	18.4122%	13.4687%	17.0522%
90-94	73,533	21,586	14,714.8	18,742.1	1.47	1.15	29.3553%	20.0110%	25.4879%
95-99	13,058	5,142	3,498.4	4,453.4	1.47	1.15	39.3798%	26.7910%	34.1045%
100 and over	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*30,046,594*	*1,174,560*	*1,030,612.7*	*948,234.7*	*1.14*	*1.24*	*3.9091%*	*3.4300%*	*3.1559%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 3A | **Calendar Years 2020 - 2024**

Mortality Experience of Disabled Annuitants | **Females**

Age	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
25-29	9,470	0	35.2	18.3	0.00	0.00	0.0000%	0.3719%	0.1937%
30-34	42,295	1,256	226.1	114.7	5.56	10.95	2.9703%	0.5346%	0.2712%
35-39	242,061	0	1,783.3	901.3	0.00	0.00	0.0000%	0.7367%	0.3723%
40-44	530,916	5,522	5,016.8	2,605.6	1.10	2.12	1.0401%	0.9449%	0.4908%
45-49	1,126,214	14,271	15,080.4	8,061.7	0.95	1.77	1.2672%	1.3390%	0.7158%
50-54	2,294,922	20,910	39,993.3	25,289.5	0.52	0.83	0.9111%	1.7427%	1.1020%
55-59	3,998,395	72,361	81,799.2	66,900.6	0.88	1.08	1.8097%	2.0458%	1.6732%
60-64	5,790,450	111,642	125,265.1	108,333.9	0.89	1.03	1.9280%	2.1633%	1.8709%
65-69	6,145,380	190,308	151,589.8	132,908.8	1.26	1.43	3.0968%	2.4667%	2.1627%
70-74	4,702,622	196,310	155,668.8	150,603.8	1.26	1.30	4.1745%	3.3103%	3.2026%
75-79	2,278,743	133,294	112,652.1	120,406.8	1.18	1.11	5.8494%	4.9436%	5.2839%
80-84	894,193	76,526	70,667.8	74,593.4	1.08	1.03	8.5582%	7.9030%	8.3420%
85-89	412,388	51,470	48,769.9	52,287.8	1.06	0.98	12.4810%	11.8262%	12.6793%
90-94	117,122	29,033	19,240.6	21,541.0	1.51	1.35	24.7887%	16.4279%	18.3920%
95-99	13,096	5,375	3,311.3	3,735.3	1.62	1.44	41.0464%	25.2848%	28.5225%
100 and over	7,628	2,231	2,762.1	3,013.2	0.81	0.74	29.2516%	36.2090%	39.5001%
Total	*28,605,894*	*910,511*	*833,861.9*	*771,315.7*	*1.09*	*1.18*	*3.1829%*	*2.9150%*	*2.6964%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 3B

Mortality Experience of Disabled Annuitants **Males**

Year	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	5,895,072	225,645	196,162.5	178,132.5	1.15	1.27	3.8277%	3.3276%	3.0217%
2021	5,962,434	231,374	201,359.7	183,904.2	1.15	1.26	3.8805%	3.3771%	3.0844%
2022	6,050,704	246,869	207,190.5	190,518.9	1.19	1.30	4.0800%	3.4242%	3.1487%
2023	6,031,703	214,226	210,835.6	195,544.8	1.02	1.10	3.5517%	3.4955%	3.2419%
2024	6,106,680	256,446	215,064.4	200,134.3	1.19	1.28	4.1994%	3.5218%	3.2773%
Total	*30,046,594*	*1,174,560*	*1,030,612.7*	*948,234.7*	*1.14*	*1.24*	*3.9091%*	*3.4300%*	*3.1559%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 3B

Mortality Experience of Disabled Annuitants **Females**

Year	Benefits Exposed	Benefit Weighted Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	5,664,767	179,110	158,596.6	144,832.2	1.13	1.24	3.1618%	2.7997%	2.5567%
2021	5,683,313	194,299	162,099.3	148,919.7	1.20	1.30	3.4188%	2.8522%	2.6203%
2022	5,728,224	188,312	166,806.2	154,259.1	1.13	1.22	3.2874%	2.9120%	2.6930%
2023	5,755,386	163,200	170,764.6	158,859.0	0.96	1.03	2.8356%	2.9670%	2.7602%
2024	5,774,205	185,589	175,595.4	164,445.7	1.06	1.13	3.2141%	3.0410%	2.8479%
Total	*28,605,894*	*910,511*	*833,861.9*	*771,315.7*	*1.09*	*1.18*	*3.1829%*	*2.9150%*	*2.6964%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 4A — **Calendar Years 2020 - 2024**

Disability Experience of Active General Employees — **Males**

Age	Life Years Exposed	Number of Disabilities			Ratio of Actual to		Disability Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
23	1,277	0	0.1	0.1	0.00	0.00	0.0000%	0.0110%	0.0094%
24	1,618	0	0.2	0.2	0.00	0.00	0.0000%	0.0110%	0.0094%
25	1,829	0	0.2	0.2	0.00	0.00	0.0000%	0.0110%	0.0094%
26	2,054	0	0.4	0.3	0.00	0.00	0.0000%	0.0180%	0.0153%
27	2,254	0	0.4	0.3	0.00	0.00	0.0000%	0.0180%	0.0153%
28	2,432	0	0.6	0.5	0.00	0.00	0.0000%	0.0260%	0.0221%
29	2,704	0	0.9	0.7	0.00	0.00	0.0000%	0.0320%	0.0272%
30	2,906	1	0.9	0.8	1.08	1.27	0.0344%	0.0320%	0.0272%
31	3,144	1	1.1	0.9	0.91	1.07	0.0318%	0.0350%	0.0298%
32	3,400	1	1.3	1.1	0.75	0.89	0.0294%	0.0390%	0.0332%
33	3,565	1	1.5	1.3	0.67	0.79	0.0281%	0.0420%	0.0357%
34	3,763	0	2.0	1.7	0.00	0.00	0.0000%	0.0530%	0.0451%
35	3,910	1	2.2	1.9	0.46	0.54	0.0256%	0.0560%	0.0476%
36	4,004	2	2.4	2.0	0.83	0.98	0.0500%	0.0600%	0.0510%
37	4,083	2	2.4	2.1	0.82	0.96	0.0490%	0.0600%	0.0510%
38	4,246	2	2.7	2.3	0.75	0.88	0.0471%	0.0630%	0.0536%
39	4,353	4	2.9	2.5	1.37	1.61	0.0919%	0.0670%	0.0570%
40	4,518	1	4.0	3.4	0.25	0.30	0.0221%	0.0880%	0.0748%
41	4,618	4	4.5	3.8	0.88	1.04	0.0866%	0.0980%	0.0833%
42	4,647	3	5.8	4.9	0.52	0.61	0.0646%	0.1250%	0.1063%
43	4,635	5	7.0	5.9	0.71	0.84	0.1079%	0.1510%	0.1284%
44	4,610	4	8.2	6.9	0.49	0.58	0.0868%	0.1770%	0.1505%
45	4,566	4	9.3	7.9	0.43	0.51	0.0876%	0.2040%	0.1734%
46	4,634	9	10.7	9.1	0.84	0.99	0.1942%	0.2300%	0.1955%
47	4,682	13	12.0	10.2	1.08	1.28	0.2777%	0.2560%	0.2176%
48	4,823	5	13.6	11.6	0.37	0.43	0.1037%	0.2830%	0.2406%
49	5,183	10	16.3	13.9	0.61	0.72	0.1929%	0.3150%	0.2678%
50	5,424	16	18.0	15.3	0.89	1.05	0.2950%	0.3320%	0.2822%
51	5,685	15	20.1	17.1	0.75	0.88	0.2639%	0.3530%	0.3001%
52	5,875	15	21.7	18.5	0.69	0.81	0.2553%	0.3700%	0.3145%
53	5,907	17	23.7	20.2	0.72	0.84	0.2878%	0.4020%	0.3417%
54	5,966	20	25.0	21.2	0.80	0.94	0.3352%	0.4190%	0.3562%
55	5,954	16	25.9	22.0	0.62	0.73	0.2687%	0.4350%	0.3698%
56	5,984	23	26.7	22.7	0.86	1.01	0.3844%	0.4460%	0.3791%
57	6,059	27	28.4	24.1	0.95	1.12	0.4456%	0.4680%	0.3978%
58	6,028	24	28.8	24.5	0.83	0.98	0.3981%	0.4780%	0.4063%
59	5,914	26	29.6	25.1	0.88	1.03	0.4396%	0.5000%	0.4250%
60	5,385	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
61	4,601	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
62	4,137	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
63	3,636	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
64	3,240	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
65	2,774	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
66	2,130	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
67	1,599	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
68	1,277	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
69	1,018	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70	800	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
71	631	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
72	531	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
73	425	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
74	338	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75	275	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
76	222	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
77	167	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
78	125	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
79	99	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80	67	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
81	46	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
82	34	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 4A **Calendar Years 2020 - 2024**

Disability Experience of Active General Employees **Males**

Age	Life Years Exposed	Number of Disabilities			Ratio of Actual to		Disability Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
83	26	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
84	18	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85	13	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
86	9	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
87	5	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
88	4	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
89	3	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90	4	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
91	3	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
92	2	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
93	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
94	1	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
95	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
96	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
97	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
98	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
99	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
101	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*193,156*	*272*	*361.6*	*307.3*	*0.75*	*0.89*	*0.1408%*	*0.1872%*	*0.1591%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 4A **Calendar Years 2020 - 2024**

Disability Experience of Active General Employees **Females**

Age	Life Years Exposed	Number of Disabilities			Ratio of Actual to		Disability Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
23	1,086	0	0.2	0.2	0.00	0.00	0.0000%	0.0200%	0.0140%
24	1,403	0	0.3	0.2	0.00	0.00	0.0000%	0.0200%	0.0140%
25	1,652	0	0.3	0.2	0.00	0.00	0.0000%	0.0200%	0.0140%
26	1,934	0	0.4	0.3	0.00	0.00	0.0000%	0.0220%	0.0154%
27	2,203	0	0.6	0.4	0.00	0.00	0.0000%	0.0280%	0.0196%
28	2,394	0	0.7	0.5	0.00	0.00	0.0000%	0.0280%	0.0196%
29	2,686	0	1.0	0.7	0.00	0.00	0.0000%	0.0390%	0.0273%
30	2,966	1	1.4	1.0	0.72	1.02	0.0337%	0.0470%	0.0329%
31	3,219	1	1.8	1.3	0.55	0.79	0.0311%	0.0560%	0.0392%
32	3,328	3	2.0	1.4	1.48	2.11	0.0901%	0.0610%	0.0427%
33	3,616	1	2.6	1.8	0.38	0.55	0.0277%	0.0720%	0.0504%
34	3,708	1	2.9	2.0	0.35	0.49	0.0270%	0.0780%	0.0546%
35	3,843	4	3.1	2.2	1.29	1.84	0.1041%	0.0810%	0.0567%
36	4,071	2	3.4	2.4	0.58	0.84	0.0491%	0.0840%	0.0588%
37	4,357	5	3.7	2.6	1.33	1.91	0.1148%	0.0860%	0.0602%
38	4,559	6	5.0	3.5	1.21	1.72	0.1316%	0.1090%	0.0763%
39	4,669	3	6.2	4.3	0.49	0.70	0.0643%	0.1320%	0.0924%
40	4,846	3	7.5	5.3	0.40	0.57	0.0619%	0.1550%	0.1085%
41	5,020	4	8.9	6.3	0.45	0.64	0.0797%	0.1780%	0.1246%
42	5,007	8	10.1	7.0	0.79	1.14	0.1598%	0.2010%	0.1407%
43	5,015	3	11.2	7.8	0.27	0.38	0.0598%	0.2230%	0.1561%
44	5,020	7	11.6	8.2	0.60	0.86	0.1394%	0.2320%	0.1624%
45	5,002	5	13.2	9.2	0.38	0.54	0.1000%	0.2630%	0.1841%
46	5,000	7	14.7	10.3	0.48	0.68	0.1400%	0.2930%	0.2051%
47	5,023	4	15.8	11.1	0.25	0.36	0.0796%	0.3150%	0.2205%
48	5,195	11	18.2	12.7	0.60	0.86	0.2117%	0.3500%	0.2450%
49	5,507	10	20.7	14.5	0.48	0.69	0.1816%	0.3760%	0.2632%
50	5,775	14	23.0	16.1	0.61	0.87	0.2424%	0.3980%	0.2786%
51	6,008	17	25.0	17.5	0.68	0.97	0.2830%	0.4160%	0.2912%
52	6,172	22	27.0	18.9	0.81	1.16	0.3564%	0.4380%	0.3066%
53	6,285	21	29.2	20.4	0.72	1.03	0.3341%	0.4640%	0.3248%
54	6,202	14	29.8	20.9	0.47	0.67	0.2257%	0.4810%	0.3367%
55	6,117	17	30.8	21.5	0.55	0.79	0.2779%	0.5030%	0.3521%
56	6,004	22	31.5	22.1	0.70	1.00	0.3664%	0.5250%	0.3675%
57	5,946	23	32.5	22.8	0.71	1.01	0.3868%	0.5470%	0.3829%
58	5,866	24	33.4	23.4	0.72	1.03	0.4091%	0.5690%	0.3983%
59	5,873	15	34.7	24.3	0.43	0.62	0.2554%	0.5910%	0.4137%
60	5,364	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
61	4,581	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
62	4,130	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
63	3,559	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
64	3,072	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
65	2,507	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
66	1,820	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
67	1,332	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
68	981	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
69	762	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70	579	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
71	447	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
72	342	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
73	286	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
74	200	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75	151	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
76	103	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
77	83	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
78	62	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
79	40	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80	29	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
81	22	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
82	12	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 4A **Calendar Years 2020 - 2024**

Disability Experience of Active General Employees **Females**

Age	Life Years Exposed	Number of Disabilities			Ratio of Actual to		Disability Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
83	10	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
84	9	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85	9	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
86	4	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
87	5	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
88	5	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
89	5	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90	3	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
91	2	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
92	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
93	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
94	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
95	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
96	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
97	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
98	1	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
99	1	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100	1	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
101	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*194,606*	*278*	*464.5*	*325.1*	*0.60*	*0.86*	*0.1429%*	*0.2387%*	*0.1671%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 4A — **Calendar Years 2020 - 2024**

Disability Experience of Active General Employees — **Males**

Age	Life Years Exposed	Number of Disabilities			Ratio of Actual to		Disability Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	5,152	0	0.3	0.3	0.00	0.00	0.0000%	0.0062%	0.0053%
25-29	11,273	0	2.5	2.1	0.00	0.00	0.0000%	0.0219%	0.0187%
30-34	16,778	4	6.8	5.8	0.58	0.69	0.0238%	0.0408%	0.0347%
35-39	20,596	11	12.6	10.7	0.87	1.02	0.0534%	0.0613%	0.0521%
40-44	23,028	17	29.5	25.0	0.58	0.68	0.0738%	0.1280%	0.1088%
45-49	23,888	41	61.9	52.6	0.66	0.78	0.1716%	0.2593%	0.2204%
50-54	28,857	83	108.6	92.3	0.76	0.90	0.2876%	0.3762%	0.3198%
55-59	29,939	116	139.3	118.4	0.83	0.98	0.3875%	0.4654%	0.3956%
60-64	20,999	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
65-69	8,798	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70-74	2,725	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75-79	888	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80-84	191	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85-89	34	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90-94	10	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
95-99	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100 and over	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*193,156*	*272*	*361.6*	*307.3*	*0.75*	*0.89*	*0.1408%*	*0.1872%*	*0.1591%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 4A

Disability Experience of Active General Employees

Calendar Years 2020 - 2024

Females

Age	Life Years Exposed	Number of Disabilities			Ratio of Actual to		Disability Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	3,999	0	0.5	0.3	0.00	0.00	0.0000%	0.0124%	0.0087%
25-29	10,869	0	3.1	2.2	0.00	0.00	0.0000%	0.0284%	0.0199%
30-34	16,837	7	10.7	7.5	0.65	0.93	0.0416%	0.0637%	0.0446%
35-39	21,499	20	21.4	15.0	0.93	1.33	0.0930%	0.0996%	0.0697%
40-44	24,908	25	49.3	34.5	0.51	0.72	0.1004%	0.1981%	0.1387%
45-49	25,727	37	82.5	57.8	0.45	0.64	0.1438%	0.3207%	0.2245%
50-54	30,442	88	134.0	93.8	0.66	0.94	0.2891%	0.4402%	0.3081%
55-59	29,806	101	162.9	114.0	0.62	0.89	0.3389%	0.5465%	0.3826%
60-64	20,706	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
65-69	7,402	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70-74	1,854	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75-79	439	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80-84	82	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85-89	28	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90-94	5	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
95-99	2	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100 and over	1	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*194,606*	*278*	*464.5*	*325.1*	*0.60*	*0.86*	*0.1429%*	*0.2387%*	*0.1671%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 4B

Disability Experience of Active General Employees **Males**

Year	Life Years Exposed	Number of Disabilities			Ratio of Actual to		Disability Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	40,213	48	75.8	64.4	0.63	0.75	0.1194%	0.1884%	0.1602%
2021	39,445	67	74.1	63.0	0.90	1.06	0.1699%	0.1879%	0.1597%
2022	38,192	56	72.1	61.3	0.78	0.91	0.1466%	0.1889%	0.1605%
2023	37,458	54	70.0	59.5	0.77	0.91	0.1442%	0.1868%	0.1588%
2024	37,848	47	69.6	59.1	0.68	0.79	0.1242%	0.1838%	0.1563%
Total	*193,156*	*272*	*361.6*	*307.4*	*0.75*	*0.88*	*0.1408%*	*0.1872%*	*0.1591%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 4B

Disability Experience of Active General Employees **Females**

Year	Life Years Exposed	Number of Disabilities			Ratio of Actual to		Disability Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	40,651	55	97.0	67.9	0.57	0.81	0.1353%	0.2385%	0.1670%
2021	39,887	74	94.9	66.5	0.78	1.11	0.1855%	0.2380%	0.1666%
2022	38,252	57	91.8	64.3	0.62	0.89	0.1490%	0.2400%	0.1680%
2023	37,685	55	90.2	63.1	0.61	0.87	0.1459%	0.2394%	0.1676%
2024	38,131	37	90.6	63.4	0.41	0.58	0.0970%	0.2375%	0.1663%
Total	*194,606*	*278*	*464.5*	*325.1*	*0.60*	*0.86*	*0.1429%*	*0.2387%*	*0.1671%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 5A **Calendar Years 2020 - 2024**

Early Retirement Experience of Active General Employees with 5 - 14 Years of Service **Males**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
21	0	0	0.0	0.0	0.00	0.00	0.0000%	2.2000%	0.5500%
22	0	0	0.0	0.0	0.00	0.00	0.0000%	2.2000%	0.5500%
23	0	0	0.0	0.0	0.00	0.00	0.0000%	2.2000%	0.5500%
24	7	0	0.2	0.0	0.00	0.00	0.0000%	2.2000%	0.5500%
25	32	0	0.7	0.2	0.00	0.00	0.0000%	2.2000%	0.5500%
26	38	0	0.8	0.2	0.00	0.00	0.0000%	2.2000%	0.5500%
27	31	0	0.7	0.2	0.00	0.00	0.0000%	2.2000%	0.5500%
28	20	0	0.4	0.1	0.00	0.00	0.0000%	2.2000%	0.5500%
29	69	0	1.5	0.4	0.00	0.00	0.0000%	2.2000%	0.5500%
30	156	0	3.4	1.7	0.00	0.00	0.0000%	2.2000%	1.1000%
31	281	2	6.2	3.1	0.32	0.65	0.7117%	2.2000%	1.1000%
32	452	2	9.9	5.0	0.20	0.40	0.4425%	2.2000%	1.1000%
33	668	7	14.7	7.3	0.48	0.95	1.0479%	2.2000%	1.1000%
34	919	11	20.2	10.1	0.54	1.09	1.1970%	2.2000%	1.1000%
35	1,064	6	13.8	8.3	0.43	0.72	0.5639%	1.3000%	0.7800%
36	1,150	9	15.0	9.0	0.60	1.00	0.7826%	1.3000%	0.7800%
37	1,211	8	15.7	9.4	0.51	0.85	0.6606%	1.3000%	0.7800%
38	1,267	12	16.5	9.9	0.73	1.21	0.9471%	1.3000%	0.7800%
39	1,125	9	14.6	8.8	0.62	1.03	0.8000%	1.3000%	0.7800%
40	1,088	7	10.9	9.8	0.64	0.71	0.6434%	1.0000%	0.9000%
41	1,026	12	10.3	9.2	1.17	1.30	1.1696%	1.0000%	0.9000%
42	973	11	9.7	8.8	1.13	1.26	1.1305%	1.0000%	0.9000%
43	950	4	9.5	8.6	0.42	0.47	0.4211%	1.0000%	0.9000%
44	899	12	9.0	8.1	1.33	1.48	1.3348%	1.0000%	0.9000%
45	857	5	8.6	6.4	0.58	0.78	0.5834%	1.0000%	0.7500%
46	862	6	8.6	6.5	0.70	0.93	0.6961%	1.0000%	0.7500%
47	851	11	8.5	6.4	1.29	1.72	1.2926%	1.0000%	0.7500%
48	859	6	8.6	6.4	0.70	0.93	0.6985%	1.0000%	0.7500%
49	886	4	8.9	6.6	0.45	0.60	0.4515%	1.0000%	0.7500%
50	844	7	8.4	7.2	0.83	0.98	0.8294%	1.0000%	0.8500%
51	874	4	8.7	7.4	0.46	0.54	0.4577%	1.0000%	0.8500%
52	868	10	8.7	7.4	1.15	1.36	1.1521%	1.0000%	0.8500%
53	852	5	8.5	7.2	0.59	0.69	0.5869%	1.0000%	0.8500%
54	854	10	8.5	7.3	1.17	1.38	1.1710%	1.0000%	0.8500%
55	821	11	16.4	14.8	0.67	0.74	1.3398%	2.0000%	1.8000%
56	782	7	15.6	14.1	0.45	0.50	0.8951%	2.0000%	1.8000%
57	843	5	16.9	15.2	0.30	0.33	0.5931%	2.0000%	1.8000%
58	853	16	17.1	15.4	0.94	1.04	1.8757%	2.0000%	1.8000%
59	855	35	17.1	15.4	2.05	2.27	4.0936%	2.0000%	1.8000%
60	193	3	3.9	15.4	0.78	0.19	1.5544%	2.0000%	8.0000%
61	191	10	3.8	15.3	2.62	0.65	5.2356%	2.0000%	8.0000%
62	163	19	3.3	13.0	5.83	1.46	11.6564%	2.0000%	8.0000%
63	158	15	3.2	12.6	4.75	1.19	9.4937%	2.0000%	8.0000%
64	158	24	3.2	12.6	7.59	1.90	15.1899%	2.0000%	8.0000%
65	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
66	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
67	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
68	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
69	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
71	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
72	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
73	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
74	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
76	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
77	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
78	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
79	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
81	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
82	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 5A **Calendar Years 2020 - 2024**

Early Retirement Experience of Active General Employees with 5 - 14 Years of Service **Males**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
83	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
84	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
86	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
87	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
88	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
89	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
91	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
92	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
93	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
94	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
95	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
96	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
97	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
98	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
99	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
101	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*27,050*	*325*	*370.2*	*330.8*	*0.88*	*0.98*	*1.2015%*	*1.3686%*	*1.2228%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 5A **Calendar Years 2020 - 2024**

Early Retirement Experience of Active General Employees with 5 - 14 Years of Service **Females**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
21	0	0	0.0	0.0	0.00	0.00	0.0000%	4.0000%	1.0000%
22	0	0	0.0	0.0	0.00	0.00	0.0000%	4.0000%	1.0000%
23	1	0	0.0	0.0	0.00	0.00	0.0000%	4.0000%	1.0000%
24	1	0	0.0	0.0	0.00	0.00	0.0000%	4.0000%	1.0000%
25	7	0	0.3	0.1	0.00	0.00	0.0000%	4.0000%	1.0000%
26	7	0	0.3	0.1	0.00	0.00	0.0000%	4.0000%	1.0000%
27	7	0	0.3	0.1	0.00	0.00	0.0000%	4.0000%	1.0000%
28	18	0	0.7	0.2	0.00	0.00	0.0000%	4.0000%	1.0000%
29	68	1	2.7	0.7	0.37	1.47	1.4706%	4.0000%	1.0000%
30	149	2	3.0	2.2	0.67	0.89	1.3423%	2.0000%	1.5000%
31	241	4	4.8	3.6	0.83	1.11	1.6598%	2.0000%	1.5000%
32	382	7	7.6	5.7	0.92	1.22	1.8325%	2.0000%	1.5000%
33	609	11	12.2	9.1	0.90	1.20	1.8062%	2.0000%	1.5000%
34	779	9	15.6	11.7	0.58	0.77	1.1553%	2.0000%	1.5000%
35	917	7	18.3	11.9	0.38	0.59	0.7634%	2.0000%	1.3000%
36	1,029	8	20.6	13.4	0.39	0.60	0.7775%	2.0000%	1.3000%
37	1,197	14	23.9	15.6	0.58	0.90	1.1696%	2.0000%	1.3000%
38	1,215	13	24.3	15.8	0.53	0.82	1.0700%	2.0000%	1.3000%
39	1,151	14	23.0	15.0	0.61	0.94	1.2163%	2.0000%	1.3000%
40	1,070	10	15.0	13.5	0.67	0.74	0.9346%	1.4000%	1.2600%
41	991	12	13.9	12.5	0.86	0.96	1.2109%	1.4000%	1.2600%
42	940	16	13.2	11.8	1.22	1.35	1.7021%	1.4000%	1.2600%
43	897	12	12.6	11.3	0.96	1.06	1.3378%	1.4000%	1.2600%
44	898	10	12.6	11.3	0.80	0.88	1.1136%	1.4000%	1.2600%
45	896	7	12.5	9.4	0.56	0.74	0.7813%	1.4000%	1.0500%
46	852	9	11.9	8.9	0.75	1.01	1.0563%	1.4000%	1.0500%
47	833	11	11.7	8.7	0.94	1.26	1.3205%	1.4000%	1.0500%
48	878	9	12.3	9.2	0.73	0.98	1.0251%	1.4000%	1.0500%
49	938	9	13.1	9.8	0.69	0.91	0.9595%	1.4000%	1.0500%
50	957	15	13.4	13.4	1.12	1.12	1.5674%	1.4000%	1.4000%
51	953	15	13.3	13.3	1.12	1.12	1.5740%	1.4000%	1.4000%
52	912	15	12.8	12.8	1.17	1.17	1.6447%	1.4000%	1.4000%
53	905	12	12.7	12.7	0.95	0.95	1.3260%	1.4000%	1.4000%
54	882	11	12.3	12.3	0.89	0.89	1.2472%	1.4000%	1.4000%
55	924	12	21.3	21.3	0.56	0.56	1.2987%	2.3000%	2.3000%
56	955	13	22.0	22.0	0.59	0.59	1.3613%	2.3000%	2.3000%
57	961	19	22.1	22.1	0.86	0.86	1.9771%	2.3000%	2.3000%
58	959	18	22.1	22.1	0.82	0.82	1.8770%	2.3000%	2.3000%
59	956	47	22.0	22.0	2.14	2.14	4.9163%	2.3000%	2.3000%
60	190	4	4.4	13.1	0.92	0.31	2.1053%	2.3000%	6.9000%
61	178	11	4.1	12.3	2.69	0.90	6.1798%	2.3000%	6.9000%
62	165	15	3.8	11.4	3.95	1.32	9.0909%	2.3000%	6.9000%
63	174	10	4.0	12.0	2.50	0.83	5.7471%	2.3000%	6.9000%
64	152	22	3.5	10.5	6.29	2.10	14.4737%	2.3000%	6.9000%
65	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
66	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
67	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
68	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
69	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
71	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
72	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
73	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
74	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
76	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
77	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
78	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
79	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
81	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
82	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 5A | **Calendar Years 2020 - 2024**

Early Retirement Experience of Active General Employees with 5 - 14 Years of Service | **Females**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
83	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
84	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
86	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
87	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
88	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
89	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
91	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
92	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
93	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
94	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
95	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
96	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
97	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
98	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
99	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
101	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*27,194*	*434*	*480.1*	*444.9*	*0.90*	*0.98*	*1.5959%*	*1.7654%*	*1.6359%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 5A — **Calendar Years 2020 - 2024**

Early Retirement Experience of Active General Employees with 5 - 14 Years of Service — **Males**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	7	0	0.2	0.0	0.00	0.00	0.0000%	2.2000%	0.5500%
25-29	190	0	4.2	1.0	0.00	0.00	0.0000%	2.2000%	0.5500%
30-34	2,476	22	54.5	27.2	0.40	0.81	0.8885%	2.2000%	1.1000%
35-39	5,817	44	75.6	45.4	0.58	0.97	0.7564%	1.3000%	0.7800%
40-44	4,936	46	49.4	44.4	0.93	1.04	0.9319%	1.0000%	0.9000%
45-49	4,315	32	43.1	32.4	0.74	0.99	0.7416%	1.0000%	0.7500%
50-54	4,292	36	42.9	36.5	0.84	0.99	0.8388%	1.0000%	0.8500%
55-59	4,154	74	83.1	74.8	0.89	0.99	1.7814%	2.0000%	1.8000%
60-64	863	71	17.3	69.0	4.11	1.03	8.2271%	2.0000%	8.0000%
65-69	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70-74	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75-79	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80-84	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85-89	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90-94	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
95-99	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100 and over	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*27,050*	*325*	*370.2*	*330.8*	*0.88*	*0.98*	*1.2015%*	*1.3686%*	*1.2228%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 5A | **Calendar Years 2020 - 2024**

Early Retirement Experience of Active General Employees with 5 - 14 Years of Service | **Females**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	2	0	0.1	0.0	0.00	0.00	0.0000%	4.0000%	1.0000%
25-29	107	1	4.3	1.1	0.23	0.93	0.9346%	4.0000%	1.0000%
30-34	2,160	33	43.2	32.4	0.76	1.02	1.5278%	2.0000%	1.5000%
35-39	5,509	56	110.2	71.6	0.51	0.78	1.0165%	2.0000%	1.3000%
40-44	4,796	60	67.1	60.4	0.89	0.99	1.2510%	1.4000%	1.2600%
45-49	4,397	45	61.6	46.2	0.73	0.97	1.0234%	1.4000%	1.0500%
50-54	4,609	68	64.5	64.5	1.05	1.05	1.4754%	1.4000%	1.4000%
55-59	4,755	109	109.4	109.4	1.00	1.00	2.2923%	2.3000%	2.3000%
60-64	859	62	19.8	59.3	3.14	1.05	7.2177%	2.3000%	6.9000%
65-69	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70-74	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75-79	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80-84	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85-89	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90-94	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
95-99	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100 and over	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*27,194*	*434*	*480.1*	*444.9*	*0.90*	*0.98*	*1.5959%*	*1.7654%*	*1.6359%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 5B

Early Retirement Experience of Active General Employees with 5 - 14 Years of Service **Males**

Year	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	6,609	49	90.5	67.2	0.54	0.73	0.7414%	1.3686%	1.0164%
2021	5,383	64	72.8	56.0	0.88	1.14	1.1889%	1.3522%	1.0404%
2022	5,226	68	70.9	61.9	0.96	1.10	1.3012%	1.3571%	1.1850%
2023	4,957	85	68.2	69.2	1.25	1.23	1.7147%	1.3755%	1.3951%
2024	4,875	59	67.8	76.5	0.87	0.77	1.2103%	1.3917%	1.5695%
Total	*27,050*	*325*	*370.2*	*330.8*	*0.88*	*0.98*	*1.2015%*	*1.3686%*	*1.2228%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 5B

Early Retirement Experience of Active General Employees with 5 - 14 Years of Service **Females**

Year	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	6,983	72	122.7	103.0	0.59	0.70	1.0311%	1.7564%	1.4749%
2021	5,615	99	98.4	83.6	1.01	1.18	1.7631%	1.7518%	1.4881%
2022	5,327	101	93.7	87.0	1.08	1.16	1.8960%	1.7590%	1.6339%
2023	4,743	94	84.5	85.1	1.11	1.10	1.9819%	1.7807%	1.7949%
2024	4,526	68	80.9	86.2	0.84	0.79	1.5024%	1.7878%	1.9034%
Total	*27,194*	*434*	*480.1*	*444.9*	*0.90*	*0.98*	*1.5959%*	*1.7654%*	*1.6359%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 6A — **Calendar Years 2020 - 2024**

Early Retirement Experience of Active General Employees with 15 or more Years of Service — **Males**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
31	0	0	0.0	0.0	0.00	0.00	0.0000%	0.8000%	0.8000%
32	4	0	0.0	0.0	0.00	0.00	0.0000%	0.8000%	0.9200%
33	13	0	0.1	0.1	0.00	0.00	0.0000%	0.8000%	0.9200%
34	89	1	0.7	0.8	1.40	1.22	1.1236%	0.8000%	0.9200%
35	244	1	2.0	2.2	0.51	0.45	0.4098%	0.8000%	0.9200%
36	366	3	2.9	3.4	1.02	0.89	0.8197%	0.8000%	0.9200%
37	503	7	4.0	4.6	1.74	1.51	1.3917%	0.8000%	0.9200%
38	740	7	5.9	6.8	1.18	1.03	0.9459%	0.8000%	0.9200%
39	1,022	9	8.2	9.4	1.10	0.96	0.8806%	0.8000%	0.9200%
40	1,235	7	7.4	8.9	0.94	0.79	0.5668%	0.6000%	0.7200%
41	1,417	11	8.5	10.2	1.29	1.08	0.7763%	0.6000%	0.7200%
42	1,601	13	9.6	11.5	1.35	1.13	0.8120%	0.6000%	0.7200%
43	1,662	8	10.0	12.0	0.80	0.67	0.4813%	0.6000%	0.7200%
44	1,774	13	10.6	12.8	1.22	1.02	0.7328%	0.6000%	0.7200%
45	1,848	10	11.1	13.3	0.90	0.75	0.5411%	0.6000%	0.7200%
46	1,985	21	11.9	14.3	1.76	1.47	1.0579%	0.6000%	0.7200%
47	2,050	16	22.6	23.7	0.71	0.68	0.7805%	1.1000%	1.1550%
48	2,174	24	23.9	25.1	1.00	0.96	1.1040%	1.1000%	1.1550%
49	2,465	33	27.1	28.5	1.22	1.16	1.3387%	1.1000%	1.1550%
50	2,756	29	30.3	31.8	0.96	0.91	1.0522%	1.1000%	1.1550%
51	2,983	41	32.8	34.5	1.25	1.19	1.3745%	1.1000%	1.1550%
52	3,174	60	76.2	53.3	0.79	1.13	1.8904%	2.4000%	1.6800%
53	3,244	60	103.8	72.7	0.58	0.83	1.8496%	3.2000%	2.2400%
54	3,211	96	128.4	89.9	0.75	1.07	2.9897%	4.0000%	2.8000%
55	3,211	134	160.5	128.4	0.83	1.04	4.1732%	5.0000%	4.0000%
56	3,195	154	175.7	158.2	0.88	0.97	4.8200%	5.5000%	4.9500%
57	3,160	185	199.1	189.1	0.93	0.98	5.8544%	6.3000%	5.9850%
58	3,064	217	245.1	220.6	0.89	0.98	7.0822%	8.0000%	7.2000%
59	2,985	508	477.6	501.5	1.06	1.01	17.0184%	16.0000%	16.8000%
60	10	2	0.0	0.0	0.00	0.00	20.0000%	0.0000%	0.0000%
61	11	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
62	13	1	0.0	0.0	0.00	0.00	7.6923%	0.0000%	0.0000%
63	11	1	0.0	0.0	0.00	0.00	9.0909%	0.0000%	0.0000%
64	11	1	0.0	0.0	0.00	0.00	9.0909%	0.0000%	0.0000%
65	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
66	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
67	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
68	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
69	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
71	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
72	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
73	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
74	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
76	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
77	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
78	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
79	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
81	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
82	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 6A **Calendar Years 2020 - 2024**

Early Retirement Experience of Active General Employees with 15 or more Years of Service **Males**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
83	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
84	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
86	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
87	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
88	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
89	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
91	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
92	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
93	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
94	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
95	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
96	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
97	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
98	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
99	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
101	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*52,231*	*1,673*	*1,796.2*	*1,667.6*	*0.93*	*1.00*	*3.2031%*	*3.4389%*	*3.1928%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 6A | **Calendar Years 2020 - 2024**

Early Retirement Experience of Active General Employees with 15 or more Years of Service | **Females**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
31	2	0	0.0	0.0	0.00	0.00	0.0000%	1.4000%	1.4000%
32	7	0	0.1	0.1	0.00	0.00	0.0000%	1.4000%	1.4000%
33	23	0	0.3	0.3	0.00	0.00	0.0000%	1.4000%	1.4000%
34	92	3	1.3	1.3	2.33	2.33	3.2609%	1.4000%	1.4000%
35	191	5	2.7	2.7	1.87	1.87	2.6178%	1.4000%	1.4000%
36	314	7	4.4	4.4	1.59	1.59	2.2293%	1.4000%	1.4000%
37	483	10	6.8	6.8	1.48	1.48	2.0704%	1.4000%	1.4000%
38	711	9	10.0	10.0	0.90	0.90	1.2658%	1.4000%	1.4000%
39	985	6	13.8	13.8	0.44	0.44	0.6091%	1.4000%	1.4000%
40	1,271	12	16.5	13.2	0.73	0.91	0.9441%	1.3000%	1.0400%
41	1,497	16	19.5	15.6	0.82	1.03	1.0688%	1.3000%	1.0400%
42	1,636	18	21.3	17.0	0.85	1.06	1.1002%	1.3000%	1.0400%
43	1,746	13	22.7	18.2	0.57	0.72	0.7446%	1.3000%	1.0400%
44	1,822	17	23.7	18.9	0.72	0.90	0.9330%	1.3000%	1.0400%
45	1,879	18	24.4	19.5	0.74	0.92	0.9580%	1.3000%	1.0400%
46	1,977	20	25.7	20.6	0.78	0.97	1.0116%	1.3000%	1.0400%
47	2,052	22	26.7	21.3	0.82	1.03	1.0721%	1.3000%	1.0400%
48	2,190	37	28.5	22.8	1.30	1.62	1.6895%	1.3000%	1.0400%
49	2,434	22	31.6	25.3	0.70	0.87	0.9039%	1.3000%	1.0400%
50	2,661	45	42.6	44.7	1.06	1.01	1.6911%	1.6000%	1.6800%
51	2,921	52	70.1	52.6	0.74	0.99	1.7802%	2.4000%	1.8000%
52	3,126	92	140.7	119.6	0.65	0.77	2.9431%	4.5000%	3.8250%
53	3,165	106	142.4	121.1	0.74	0.88	3.3491%	4.5000%	3.8250%
54	3,031	119	136.4	115.9	0.87	1.03	3.9261%	4.5000%	3.8250%
55	2,928	139	131.8	112.0	1.05	1.24	4.7473%	4.5000%	3.8250%
56	2,841	136	156.3	140.6	0.87	0.97	4.7870%	5.5000%	4.9500%
57	2,834	167	178.5	169.6	0.94	0.98	5.8927%	6.3000%	5.9850%
58	2,772	150	221.8	155.2	0.68	0.97	5.4113%	8.0000%	5.6000%
59	2,810	428	449.6	427.1	0.95	1.00	15.2313%	16.0000%	15.2000%
60	15	1	0.0	0.0	0.00	0.00	6.6667%	0.0000%	0.0000%
61	17	3	0.0	0.0	0.00	0.00	17.6471%	0.0000%	0.0000%
62	16	2	0.0	0.0	0.00	0.00	12.5000%	0.0000%	0.0000%
63	9	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
64	10	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
65	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
66	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
67	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
68	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
69	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
71	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
72	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
73	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
74	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
76	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
77	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
78	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
79	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
81	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
82	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 6A **Calendar Years 2020 - 2024**

Early Retirement Experience of Active General Employees with 15 or more Years of Service **Females**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
83	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
84	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
86	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
87	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
88	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
89	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
91	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
92	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
93	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
94	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
95	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
96	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
97	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
98	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
99	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
101	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*50,468*	*1,675*	*1,950.0*	*1,690.2*	*0.86*	*0.99*	*3.3189%*	*3.8637%*	*3.3490%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 6A | **Calendar Years 2020 - 2024**

Early Retirement Experience of Active General Employees with 15 or more Years of Service | **Males**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
25-29	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
30-34	106	1	0.8	1.0	1.18	1.03	0.9434%	0.8000%	0.9200%
35-39	2,875	27	23.0	26.5	1.17	1.02	0.9391%	0.8000%	0.9200%
40-44	7,689	52	46.1	55.4	1.13	0.94	0.6763%	0.6000%	0.7200%
45-49	10,522	104	96.6	104.9	1.08	0.99	0.9884%	0.9179%	0.9965%
50-54	15,368	286	371.6	282.2	0.77	1.01	1.8610%	2.4177%	1.8362%
55-59	15,615	1,198	1,258.1	1,197.8	0.95	1.00	7.6721%	8.0568%	7.6709%
60-64	56	5	0.0	0.0	0.00	0.00	8.9286%	0.0000%	0.0000%
65-69	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70-74	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75-79	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80-84	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85-89	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90-94	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
95-99	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100 and over	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*52,231*	*1,673*	*1,796.2*	*1,667.6*	*0.93*	*1.00*	*3.2031%*	*3.4389%*	*3.1928%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 6A **Calendar Years 2020 - 2024**

Early Retirement Experience of Active General Employees with 15 or more Years of Service **Females**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
25-29	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
30-34	124	3	1.7	1.7	1.73	1.73	2.4194%	1.4000%	1.4000%
35-39	2,684	37	37.6	37.6	0.98	0.98	1.3785%	1.4000%	1.4000%
40-44	7,972	76	103.6	82.9	0.73	0.92	0.9533%	1.3000%	1.0400%
45-49	10,532	119	136.9	109.5	0.87	1.09	1.1299%	1.3000%	1.0400%
50-54	14,904	414	532.2	453.8	0.78	0.91	2.7778%	3.5707%	3.0452%
55-59	14,185	1,020	1,137.9	1,004.6	0.90	1.02	7.1907%	8.0220%	7.0821%
60-64	67	6	0.0	0.0	0.00	0.00	8.9552%	0.0000%	0.0000%
65-69	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70-74	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75-79	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80-84	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85-89	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90-94	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
95-99	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100 and over	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*50,468*	*1,675*	*1,950.0*	*1,690.2*	*0.86*	*0.99*	*3.3189%*	*3.8637%*	*3.3490%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 6B

Early Retirement Experience of Active General Employees with 15 or more Years of Service **Males**

Year	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	10,628	342	376.3	350.0	0.91	0.98	3.2179%	3.5403%	3.2935%
2021	10,580	363	366.2	340.0	0.99	1.07	3.4310%	3.4612%	3.2138%
2022	10,473	358	358.7	333.1	1.00	1.07	3.4183%	3.4246%	3.1809%
2023	10,345	313	350.4	325.0	0.89	0.96	3.0256%	3.3875%	3.1413%
2024	10,205	297	344.6	319.5	0.86	0.93	2.9103%	3.3770%	3.1306%
Total	*52,231*	*1,673*	*1,796.2*	*1,667.6*	*0.93*	*1.00*	*3.2031%*	*3.4389%*	*3.1928%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 6B

Early Retirement Experience of Active General Employees with 15 or more Years of Service **Females**

Year	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	10,202	316	401.5	349.0	0.79	0.91	3.0974%	3.9354%	3.4208%
2021	10,235	372	392.8	340.4	0.95	1.09	3.6346%	3.8378%	3.3254%
2022	10,035	393	388.2	336.1	1.01	1.17	3.9163%	3.8688%	3.3491%
2023	10,032	299	387.8	335.6	0.77	0.89	2.9805%	3.8658%	3.3457%
2024	9,964	295	379.6	329.1	0.78	0.90	2.9607%	3.8098%	3.3032%
Total	*50,468*	*1,675*	*1,950.0*	*1,690.2*	*0.86*	*0.99*	*3.3189%*	*3.8637%*	*3.3490%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 7A | **Calendar Years 2020 - 2024**

Superannuation Retirement Experience of Active General Employees | **Males**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
45	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
46	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
47	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
48	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
49	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
50	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
51	1	0	0.2	0.2	0.00	0.00	0.0000%	15.0000%	15.0000%
52	11	0	1.6	1.6	0.00	0.00	0.0000%	15.0000%	15.0000%
53	35	3	5.3	5.3	0.57	0.57	8.5714%	15.0000%	15.0000%
54	104	15	15.6	15.6	0.96	0.96	14.4231%	15.0000%	15.0000%
55	188	30	37.6	28.2	0.80	1.06	15.9574%	20.0000%	15.0000%
56	237	32	47.4	35.6	0.68	0.90	13.5021%	20.0000%	15.0000%
57	325	59	65.0	65.0	0.91	0.91	18.1538%	20.0000%	20.0000%
58	408	87	102.0	81.6	0.85	1.07	21.3235%	25.0000%	20.0000%
59	422	105	105.5	105.5	1.00	1.00	24.8815%	25.0000%	25.0000%
60	3,717	908	743.4	929.3	1.22	0.98	24.4283%	20.0000%	25.0000%
61	3,063	522	612.6	582.0	0.85	0.90	17.0421%	20.0000%	19.0000%
62	2,684	595	536.8	510.0	1.11	1.17	22.1684%	20.0000%	19.0000%
63	2,301	401	460.2	437.2	0.87	0.92	17.4272%	20.0000%	19.0000%
64	2,032	404	406.4	386.1	0.99	1.05	19.8819%	20.0000%	19.0000%
65	2,496	655	649.0	649.0	1.01	1.01	26.2420%	26.0000%	26.0000%
66	1,934	518	502.8	502.8	1.03	1.03	26.7839%	26.0000%	26.0000%
67	1,416	326	368.2	325.7	0.89	1.00	23.0226%	26.0000%	23.0000%
68	1,099	236	252.8	241.8	0.93	0.98	21.4741%	23.0000%	22.0000%
69	890	179	204.7	195.8	0.87	0.91	20.1124%	23.0000%	22.0000%
70	703	156	161.7	154.7	0.96	1.01	22.1906%	23.0000%	22.0000%
71	553	103	110.6	110.6	0.93	0.93	18.6257%	20.0000%	20.0000%
72	469	97	93.8	93.8	1.03	1.03	20.6823%	20.0000%	20.0000%
73	382	66	76.4	76.4	0.86	0.86	17.2775%	20.0000%	20.0000%
74	306	50	61.2	61.2	0.82	0.82	16.3399%	20.0000%	20.0000%
75	238	37	47.6	35.7	0.78	1.04	15.5462%	20.0000%	15.0000%
76	189	31	37.8	28.4	0.82	1.09	16.4021%	20.0000%	15.0000%
77	141	19	28.2	21.2	0.67	0.90	13.4752%	20.0000%	15.0000%
78	112	18	22.4	16.8	0.80	1.07	16.0714%	20.0000%	15.0000%
79	88	23	17.6	22.0	1.31	1.05	26.1364%	20.0000%	25.0000%
80	60	17	60.0	60.0	0.28	0.28	28.3333%	100.0000%	100.0000%
81	39	7	39.0	39.0	0.18	0.18	17.9487%	100.0000%	100.0000%
82	31	5	31.0	31.0	0.16	0.16	16.1290%	100.0000%	100.0000%
83	23	5	23.0	23.0	0.22	0.22	21.7391%	100.0000%	100.0000%
84	17	4	17.0	17.0	0.24	0.24	23.5294%	100.0000%	100.0000%
85	13	8	13.0	13.0	0.62	0.62	61.5385%	100.0000%	100.0000%
86	8	1	8.0	8.0	0.13	0.13	12.5000%	100.0000%	100.0000%
87	5	3	5.0	5.0	0.60	0.60	60.0000%	100.0000%	100.0000%
88	4	1	4.0	4.0	0.25	0.25	25.0000%	100.0000%	100.0000%
89	3	0	3.0	3.0	0.00	0.00	0.0000%	100.0000%	100.0000%
90	4	1	4.0	4.0	0.25	0.25	25.0000%	100.0000%	100.0000%
91	3	1	3.0	3.0	0.33	0.33	33.3333%	100.0000%	100.0000%
92	2	0	2.0	2.0	0.00	0.00	0.0000%	100.0000%	100.0000%
93	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
94	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
95	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 7A **Calendar Years 2020 - 2024**

Superannuation Retirement Experience of Active General Employees **Males**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
96	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
97	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
98	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
99	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
100	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
101	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
110	0	0	0.0	0.0	0.0	0.0	0.0000%	100.0000%	100.0000%
Total	*26,756*	*5,728*	*5,986.3*	*5,930.7*	*0.96*	*0.97*	*21.4083%*	*22.3736%*	*22.1658%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 7A | **Calendar Years 2020 - 2024**

Superannuation Retirement Experience of Active General Employees | **Females**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
45	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
46	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
47	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
48	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
49	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
50	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
51	1	0	0.2	0.2	0.00	0.00	0.0000%	15.0000%	15.0000%
52	11	2	1.7	1.7	1.21	1.21	18.1818%	15.0000%	15.0000%
53	64	12	14.7	12.8	0.82	0.94	18.7500%	23.0000%	20.0000%
54	192	45	44.2	44.2	1.02	1.02	23.4375%	23.0000%	23.0000%
55	248	60	57.0	57.0	1.05	1.05	24.1935%	23.0000%	23.0000%
56	297	64	68.3	68.3	0.94	0.94	21.5488%	23.0000%	23.0000%
57	354	68	81.4	70.8	0.84	0.96	19.2090%	23.0000%	20.0000%
58	424	76	97.5	84.8	0.78	0.90	17.9245%	23.0000%	20.0000%
59	452	114	126.6	113.0	0.90	1.01	25.2212%	28.0000%	25.0000%
60	3,730	915	857.9	932.5	1.07	0.98	24.5308%	23.0000%	25.0000%
61	3,034	531	606.8	606.8	0.88	0.88	17.5016%	20.0000%	20.0000%
62	2,707	570	541.4	541.4	1.05	1.05	21.0565%	20.0000%	20.0000%
63	2,293	370	458.6	458.6	0.81	0.81	16.1361%	20.0000%	20.0000%
64	1,983	422	396.6	396.6	1.06	1.06	21.2809%	20.0000%	20.0000%
65	2,335	629	607.1	607.1	1.04	1.04	26.9379%	26.0000%	26.0000%
66	1,704	435	443.0	443.0	0.98	0.98	25.5282%	26.0000%	26.0000%
67	1,238	311	321.9	321.9	0.97	0.97	25.1212%	26.0000%	26.0000%
68	906	197	208.4	190.3	0.95	1.04	21.7439%	23.0000%	21.0000%
69	693	138	159.4	145.5	0.87	0.95	19.9134%	23.0000%	21.0000%
70	530	108	121.9	111.3	0.89	0.97	20.3774%	23.0000%	21.0000%
71	414	84	82.8	82.8	1.01	1.01	20.2899%	20.0000%	20.0000%
72	318	61	63.6	63.6	0.96	0.96	19.1824%	20.0000%	20.0000%
73	270	55	54.0	54.0	1.02	1.02	20.3704%	20.0000%	20.0000%
74	192	45	38.4	38.4	1.17	1.17	23.4375%	20.0000%	20.0000%
75	141	26	28.2	21.2	0.92	1.23	18.4397%	20.0000%	15.0000%
76	96	17	19.2	14.4	0.89	1.18	17.7083%	20.0000%	15.0000%
77	76	10	15.2	11.4	0.66	0.88	13.1579%	20.0000%	15.0000%
78	59	14	11.8	14.8	1.19	0.95	23.7288%	20.0000%	25.0000%
79	39	10	7.8	9.8	1.28	1.03	25.6410%	20.0000%	25.0000%
80	27	6	27.0	27.0	0.22	0.22	22.2222%	100.0000%	100.0000%
81	21	3	21.0	21.0	0.14	0.14	14.2857%	100.0000%	100.0000%
82	11	2	11.0	11.0	0.18	0.18	18.1818%	100.0000%	100.0000%
83	10	1	10.0	10.0	0.10	0.10	10.0000%	100.0000%	100.0000%
84	9	0	9.0	9.0	0.00	0.00	0.0000%	100.0000%	100.0000%
85	7	2	7.0	7.0	0.29	0.29	28.5714%	100.0000%	100.0000%
86	4	1	4.0	4.0	0.25	0.25	25.0000%	100.0000%	100.0000%
87	5	0	5.0	5.0	0.00	0.00	0.0000%	100.0000%	100.0000%
88	5	0	5.0	5.0	0.00	0.00	0.0000%	100.0000%	100.0000%
89	5	1	5.0	5.0	0.20	0.20	20.0000%	100.0000%	100.0000%
90	3	1	3.0	3.0	0.33	0.33	33.3333%	100.0000%	100.0000%
91	2	1	2.0	2.0	0.50	0.50	50.0000%	100.0000%	100.0000%
92	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
93	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
94	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
95	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 7A **Calendar Years 2020 - 2024**

Superannuation Retirement Experience of Active General Employees **Females**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
96	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
97	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
98	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
99	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
100	1	1	1.0	1.0	1.00	1.00	100.0000%	100.0000%	100.0000%
101	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	*24,913*	*5,408*	*5,647.5*	*5,630.0*	*0.96*	*0.96*	*21.7075%*	*22.6690%*	*22.5985%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 7A | **Calendar Years 2020 - 2024**

Superannuation Retirement Experience of Active General Employees | **Males**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
25-29	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
30-34	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
35-39	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
40-44	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
45-49	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
50-54	151	18	22.6	22.6	0.79	0.79	11.9205%	15.0000%	15.0000%
55-59	1,580	313	357.5	315.8	0.88	0.99	19.8101%	22.6266%	19.9905%
60-64	13,797	2,830	2,759.4	2,844.5	1.03	0.99	20.5117%	20.0000%	20.6164%
65-69	7,835	1,914	1,977.4	1,915.1	0.97	1.00	24.4288%	25.2384%	24.4424%
70-74	2,413	472	503.7	496.7	0.94	0.95	19.5607%	20.8740%	20.5827%
75-79	768	128	153.6	124.0	0.83	1.03	16.6667%	20.0000%	16.1458%
80-84	170	38	170.0	170.0	0.22	0.22	22.3529%	100.0000%	100.0000%
85-89	33	13	33.0	33.0	0.39	0.39	39.3939%	100.0000%	100.0000%
90-94	9	2	9.0	9.0	0.22	0.22	22.2222%	100.0000%	100.0000%
95-99	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100 and over	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*26,756*	*5,728*	*5,986.3*	*5,930.7*	*0.96*	*0.97*	*21.4083%*	*22.3736%*	*22.1658%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 7A — **Calendar Years 2020 - 2024**

Superannuation Retirement Experience of Active General Employees — **Females**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
25-29	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
30-34	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
35-39	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
40-44	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
45-49	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
50-54	268	59	60.7	58.8	0.97	1.00	22.0149%	22.6418%	21.9254%
55-59	1,775	382	430.9	394.0	0.89	0.97	21.5211%	24.2732%	22.1944%
60-64	13,747	2,808	2,861.3	2,935.9	0.98	0.96	20.4263%	20.8140%	21.3567%
65-69	6,876	1,710	1,739.8	1,707.8	0.98	1.00	24.8691%	25.3024%	24.8373%
70-74	1,724	353	360.7	350.1	0.98	1.01	20.4756%	20.9223%	20.3074%
75-79	411	77	82.2	71.5	0.94	1.08	18.7348%	20.0000%	17.3844%
80-84	78	12	78.0	78.0	0.15	0.15	15.3846%	100.0000%	100.0000%
85-89	26	4	26.0	26.0	0.15	0.15	15.3846%	100.0000%	100.0000%
90-94	5	2	5.0	5.0	0.40	0.40	40.0000%	100.0000%	100.0000%
95-99	2	0	2.0	2.0	0.00	0.00	0.0000%	100.0000%	100.0000%
100 and over	1	1	1.0	1.0	1.00	1.00	100.0000%	100.0000%	100.0000%
Total	*24,913*	*5,408*	*5,647.5*	*5,630.0*	*0.96*	*0.96*	*21.7075%*	*22.6690%*	*22.5985%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 7B

Superannuation Retirement Experience of Active General Employees **Males**

Year	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	5,676	1,152	1,258.3	1,250.0	0.92	0.92	20.2960%	22.1690%	22.0227%
2021	5,564	1,291	1,237.7	1,227.8	1.04	1.05	23.2027%	22.2442%	22.0667%
2022	5,242	1,212	1,175.3	1,161.9	1.03	1.04	23.1209%	22.4208%	22.1648%
2023	5,184	1,091	1,165.7	1,152.9	0.94	0.95	21.0455%	22.4871%	22.2388%
2024	5,090	982	1,149.3	1,138.1	0.85	0.86	19.2927%	22.5788%	22.3601%
Total	*26,756*	*5,728*	*5,986.3*	*5,930.7*	*0.96*	*0.97*	*21.4083%*	*22.3736%*	*22.1658%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 7B

Superannuation Retirement Experience of Active General Employees **Females**

Year	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	5,157	1,018	1,161.0	1,159.7	0.88	0.88	19.7402%	22.5127%	22.4873%
2021	5,253	1,285	1,187.8	1,185.7	1.08	1.08	24.4622%	22.6120%	22.5724%
2022	4,886	1,093	1,104.1	1,099.6	0.99	0.99	22.3700%	22.5966%	22.5049%
2023	4,833	1,034	1,102.2	1,097.4	0.94	0.94	21.3946%	22.8061%	22.7060%
2024	4,784	978	1,092.4	1,087.6	0.90	0.90	20.4431%	22.8353%	22.7341%
Total	*24,913*	*5,408*	*5,647.5*	*5,630.0*	*0.96*	*0.96*	*21.7075%*	*22.6690%*	*22.5985%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 7C

Superannuation Retirement Experience of Active General Employees **Males and Females**

Year	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	10,833	2,170	2,419.0	2,409.7	0.90	0.90	20.0314%	22.3299%	22.2439%
2021	10,817	2,576	2,425.0	2,413.5	1.06	1.07	23.8144%	22.4184%	22.3123%
2022	10,128	2,305	2,279.0	2,261.5	1.01	1.02	22.7587%	22.5020%	22.3289%
2023	10,017	2,125	2,268.0	2,250.2	0.94	0.94	21.2139%	22.6415%	22.4642%
2024	9,874	1,960	2,242.0	2,225.7	0.87	0.88	19.8501%	22.7061%	22.5413%
Total	*51,669*	*11,136*	*11,633.0*	*11,560.6*	*0.96*	*0.96*	*21.5526%*	*22.5145%*	*22.3744%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 8A | **Calendar Years 2020 - 2024**

Withdrawal Experience of Active General Employees | **Males**

Age	Life Years Exposed	Number of Withdrawals			Ratio of Actual to		Withdrawal Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
17	1	0	0.3	0.3	0.00	0.00	0.0000%	30.0000%	27.0000%
18	23	6	6.9	6.2	0.87	0.97	26.0870%	30.0000%	27.0000%
19	231	44	67.3	60.6	0.65	0.73	19.0476%	29.1463%	26.2317%
20	492	118	129.8	117.5	0.91	1.00	23.9837%	26.3793%	23.8761%
21	636	131	149.9	136.9	0.87	0.96	20.5975%	23.5765%	21.5301%
22	874	185	196.7	183.0	0.94	1.01	21.1670%	22.5045%	20.9381%
23	1,277	241	271.5	233.4	0.89	1.03	18.8724%	21.2634%	18.2742%
24	1,618	296	294.9	290.8	1.00	1.02	18.2942%	18.2273%	17.9729%
25	1,829	290	271.1	296.0	1.07	0.98	15.8557%	14.8210%	16.1837%
26	2,054	261	280.5	281.0	0.93	0.93	12.7069%	13.6572%	13.6822%
27	2,254	315	269.2	289.6	1.17	1.09	13.9752%	11.9452%	12.8498%
28	2,432	283	255.0	288.1	1.11	0.98	11.6365%	10.4836%	11.8481%
29	2,704	299	257.7	305.8	1.16	0.98	11.0577%	9.5309%	11.3099%
30	2,906	294	245.9	295.8	1.20	0.99	10.1170%	8.4606%	10.1790%
31	3,144	302	270.4	299.9	1.12	1.01	9.6056%	8.5995%	9.5393%
32	3,396	296	271.8	301.9	1.09	0.98	8.7161%	8.0021%	8.8887%
33	3,552	290	233.7	276.9	1.24	1.05	8.1644%	6.5797%	7.7962%
34	3,674	261	232.6	275.2	1.12	0.95	7.1040%	6.3298%	7.4904%
35	3,666	257	212.7	253.1	1.21	1.02	7.0104%	5.8019%	6.9027%
36	3,638	242	192.0	234.5	1.26	1.03	6.6520%	5.2769%	6.4461%
37	3,580	242	180.1	229.3	1.34	1.06	6.7598%	5.0302%	6.4060%
38	3,506	198	166.9	208.7	1.19	0.95	5.6475%	4.7610%	5.9528%
39	3,331	182	169.0	186.7	1.08	0.98	5.4638%	5.0746%	5.6037%
40	3,283	179	168.0	187.1	1.07	0.96	5.4523%	5.1161%	5.6981%
41	3,201	176	162.6	176.8	1.08	1.00	5.4983%	5.0784%	5.5218%
42	3,046	177	149.3	165.7	1.19	1.07	5.8109%	4.9010%	5.4413%
43	2,973	168	147.8	157.4	1.14	1.07	5.6509%	4.9724%	5.2928%
44	2,836	160	141.0	156.7	1.14	1.02	5.6417%	4.9702%	5.5270%
45	2,718	157	144.2	158.9	1.09	0.99	5.7763%	5.3041%	5.8453%
46	2,649	154	139.3	138.5	1.11	1.11	5.8135%	5.2598%	5.2289%
47	2,632	136	132.3	142.8	1.03	0.95	5.1672%	5.0251%	5.4241%
48	2,649	121	130.5	143.1	0.93	0.85	4.5678%	4.9259%	5.4027%
49	2,718	158	136.7	148.9	1.16	1.06	5.8131%	5.0307%	5.4775%
50	2,668	137	131.7	148.8	1.04	0.92	5.1349%	4.9379%	5.5783%
51	2,701	151	136.3	147.2	1.11	1.03	5.5905%	5.0446%	5.4482%
52	2,690	155	140.9	151.0	1.10	1.03	5.7621%	5.2384%	5.6123%
53	2,628	126	143.3	146.1	0.88	0.86	4.7945%	5.4540%	5.5586%
54	2,651	151	137.4	145.5	1.10	1.04	5.6960%	5.1832%	5.4890%
55	2,555	134	119.4	126.0	1.12	1.06	5.2446%	4.6747%	4.9331%
56	2,552	145	122.7	129.8	1.18	1.12	5.6818%	4.8090%	5.0865%
57	2,574	125	116.5	122.8	1.07	1.02	4.8563%	4.5277%	4.7727%
58	2,556	129	113.2	120.6	1.14	1.07	5.0469%	4.4280%	4.7199%
59	2,507	114	113.3	119.4	1.01	0.95	4.5473%	4.5207%	4.7635%
60	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*105,605*	*7,986*	*7,352.3*	*7,984.3*	*1.09*	*1.00*	*7.5621%*	*6.9621%*	*7.5606%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 8A **Calendar Years 2020 - 2024**

Withdrawal Experience of Active General Employees **Females**

Age	Life Years Exposed	Number of Withdrawals			Ratio of Actual to		Withdrawal Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
16	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
17	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
18	22	8	8.7	7.3	0.92	1.09	36.3636%	39.4377%	33.3365%
19	127	41	49.5	41.7	0.83	0.98	32.2835%	39.0113%	32.8383%
20	278	77	101.4	84.2	0.76	0.91	27.6978%	36.4833%	30.2757%
21	421	103	138.2	118.4	0.75	0.87	24.4656%	32.8357%	28.1171%
22	662	173	202.1	179.6	0.86	0.96	26.1329%	30.5293%	27.1351%
23	1,086	273	280.9	256.3	0.97	1.07	25.1381%	25.8676%	23.5972%
24	1,403	309	306.6	283.0	1.01	1.09	22.0242%	21.8515%	20.1705%
25	1,652	301	296.5	317.1	1.02	0.95	18.2203%	17.9485%	19.1967%
26	1,934	323	302.4	331.9	1.07	0.97	16.7011%	15.6371%	17.1600%
27	2,203	345	325.2	361.7	1.06	0.95	15.6605%	14.7602%	16.4174%
28	2,394	320	283.9	302.2	1.13	1.06	13.3668%	11.8595%	12.6222%
29	2,686	333	299.2	325.4	1.11	1.02	12.3976%	11.1381%	12.1141%
30	2,966	323	306.1	345.0	1.06	0.94	10.8901%	10.3192%	11.6333%
31	3,217	350	303.1	344.6	1.15	1.02	10.8797%	9.4206%	10.7103%
32	3,321	314	271.3	325.4	1.16	0.96	9.4550%	8.1704%	9.7997%
33	3,593	310	262.4	323.5	1.18	0.96	8.6279%	7.3018%	9.0045%
34	3,616	304	223.4	278.3	1.36	1.09	8.4071%	6.1788%	7.6965%
35	3,652	282	219.3	285.6	1.29	0.99	7.7218%	6.0050%	7.8213%
36	3,757	296	223.6	296.4	1.32	1.00	7.8786%	5.9502%	7.8882%
37	3,874	281	226.2	290.1	1.24	0.97	7.2535%	5.8385%	7.4890%
38	3,848	261	209.5	264.4	1.25	0.99	6.7827%	5.4440%	6.8713%
39	3,684	244	203.0	242.3	1.20	1.01	6.6232%	5.5100%	6.5758%
40	3,575	234	198.7	221.2	1.18	1.06	6.5455%	5.5589%	6.1870%
41	3,523	223	199.0	234.4	1.12	0.95	6.3298%	5.6500%	6.6543%
42	3,371	214	186.5	210.4	1.15	1.02	6.3483%	5.5337%	6.2401%
43	3,269	209	169.0	212.2	1.24	0.98	6.3934%	5.1712%	6.4920%
44	3,198	202	172.6	206.8	1.17	0.98	6.3164%	5.3987%	6.4675%
45	3,123	202	168.5	202.1	1.20	1.00	6.4681%	5.3968%	6.4702%
46	3,023	190	160.6	192.0	1.18	0.99	6.2851%	5.3121%	6.3526%
47	2,971	167	161.2	192.4	1.04	0.87	5.6210%	5.4244%	6.4754%
48	3,005	186	160.8	190.3	1.16	0.98	6.1897%	5.3525%	6.3325%
49	3,073	166	174.5	193.3	0.95	0.86	5.4019%	5.6769%	6.2893%
50	3,114	196	169.7	185.8	1.15	1.06	6.2942%	5.4504%	5.9657%
51	3,086	220	158.6	184.7	1.39	1.19	7.1290%	5.1401%	5.9845%
52	3,035	169	157.5	175.7	1.07	0.96	5.5684%	5.1887%	5.7903%
53	3,056	188	158.7	182.5	1.18	1.03	6.1518%	5.1936%	5.9727%
54	2,979	186	148.9	172.9	1.25	1.08	6.2437%	4.9977%	5.8038%
55	2,941	173	142.0	164.9	1.22	1.05	5.8824%	4.8286%	5.6073%
56	2,866	173	124.6	155.8	1.39	1.11	6.0363%	4.3463%	5.4349%
57	2,758	134	115.8	146.0	1.16	0.92	4.8586%	4.1984%	5.2923%
58	2,670	133	110.7	137.6	1.20	0.97	4.9813%	4.1460%	5.1522%
59	2,611	146	105.0	132.6	1.39	1.10	5.5917%	4.0229%	5.0782%
60	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*111,643*	*9,282*	*8,185.5*	*9,297.8*	*1.13*	*1.00*	*8.3140%*	*7.3319%*	*8.3282%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 8A **Calendar Years 2020 - 2024**

Withdrawal Experience of Active General Employees **Males**

Age	Life Years Exposed	Number of Withdrawals			Ratio of Actual to		Withdrawal Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	5,152	1,021	1,117.4	1,028.6	0.91	0.99	19.8175%	21.6887%	19.9658%
25-29	11,273	1,448	1,333.5	1,460.6	1.09	0.99	12.8449%	11.8293%	12.9569%
30-34	16,672	1,443	1,254.3	1,449.7	1.15	1.00	8.6552%	7.5231%	8.6954%
35-39	17,721	1,121	920.7	1,112.3	1.22	1.01	6.3258%	5.1956%	6.2765%
40-44	15,339	860	768.6	843.7	1.12	1.02	5.6066%	5.0107%	5.5001%
45-49	13,366	726	683.0	732.1	1.06	0.99	5.4317%	5.1098%	5.4777%
50-54	13,338	720	689.6	738.5	1.04	0.97	5.3981%	5.1705%	5.5372%
55-59	12,744	647	585.2	618.8	1.11	1.05	5.0769%	4.5921%	4.8553%
60-64	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
65-69	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70-74	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75-79	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80-84	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85-89	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90-94	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
95-99	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100 and over	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*105,605*	*7,986*	*7,352.3*	*7,984.3*	*1.09*	*1.00*	*7.5621%*	*6.9621%*	*7.5606%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 8A **Calendar Years 2020 - 2024**

Withdrawal Experience of Active General Employees **Females**

Age	Life Years Exposed	Number of Withdrawals			Ratio of Actual to		Withdrawal Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	3,999	984	1,087.5	970.5	0.90	1.01	24.6062%	27.1939%	24.2678%
25-29	10,869	1,622	1,507.2	1,638.2	1.08	0.99	14.9232%	13.8668%	15.0726%
30-34	16,713	1,601	1,366.2	1,616.9	1.17	0.99	9.5794%	8.1748%	9.6744%
35-39	18,815	1,364	1,081.5	1,378.8	1.26	0.99	7.2495%	5.7481%	7.3281%
40-44	16,936	1,082	926.0	1,085.0	1.17	1.00	6.3888%	5.4678%	6.4066%
45-49	15,195	911	825.6	970.0	1.10	0.94	5.9954%	5.4332%	6.3840%
50-54	15,270	959	793.4	901.6	1.21	1.06	6.2803%	5.1959%	5.9044%
55-59	13,846	759	598.1	736.8	1.27	1.03	5.4817%	4.3197%	5.3213%
60-64	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
65-69	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70-74	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75-79	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80-84	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85-89	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90-94	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
95-99	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
100 and over	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*111,643*	*9,282*	*8,185.5*	*9,297.8*	*1.13*	*1.00*	*8.3140%*	*7.3319%*	*8.3282%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 8B

Withdrawal Experience of Active General Employees **Males**

Year	Life Years Exposed	Number of Withdrawals			Ratio of Actual to		Withdrawal Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	22,401	1,234	1,572.3	1,705.9	0.78	0.72	5.5087%	7.0187%	7.6152%
2021	21,631	1,699	1,415.1	1,559.6	1.20	1.09	7.8545%	6.5418%	7.2098%
2022	20,739	1,912	1,362.2	1,492.6	1.40	1.28	9.2193%	6.5685%	7.1970%
2023	20,168	1,564	1,417.1	1,536.1	1.10	1.02	7.7549%	7.0264%	7.6164%
2024	20,666	1,577	1,585.7	1,690.3	0.99	0.93	7.6309%	7.6728%	8.1789%
Total	*105,605*	*7,986*	*7,352.3*	*7,984.3*	*1.09*	*1.00*	*7.5621%*	*6.9621%*	*7.5606%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 8B

Withdrawal Experience of Active General Employees — **Females**

Year	Life Years Exposed	Number of Withdrawals			Ratio of Actual to		Withdrawal Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2020	23,984	1,497	1,809.6	2,036.3	0.83	0.74	6.2417%	7.5450%	8.4903%
2021	22,918	2,035	1,586.0	1,824.6	1.28	1.12	8.8795%	6.9203%	7.9613%
2022	21,750	2,152	1,476.6	1,704.9	1.46	1.26	9.8943%	6.7890%	7.8385%
2023	21,248	1,823	1,571.3	1,784.2	1.16	1.02	8.5796%	7.3949%	8.3970%
2024	21,743	1,775	1,742.1	1,947.9	1.02	0.91	8.1635%	8.0122%	8.9587%
Total	*111,643*	*9,282*	*8,185.5*	*9,297.8*	*1.13*	*1.00*	*8.3140%*	*7.3319%*	*8.3282%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 9A **Calendar Years 2020 - 2024**

Withdrawal Experience of Judicial Officers **Males and Females**

Service	Life Years Exposed	Number of Withdrawals			Ratio of Actual to		Withdrawal Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
0	289	11	8.7	11.0	1.27	1.00	3.8062%	3.0000%	3.8000%
1	203	1	6.1	1.2	0.16	0.82	0.4926%	3.0000%	0.6000%
2	93	0	0.4	0.6	0.00	0.00	0.0000%	0.4000%	0.6000%
3	167	0	0.7	1.0	0.00	0.00	0.0000%	0.4000%	0.6000%
4	209	2	0.8	1.3	2.39	1.59	0.9569%	0.4000%	0.6000%
5	142	2	0.6	0.9	3.52	2.35	1.4085%	0.4000%	0.6000%
6	114	0	0.5	0.7	0.00	0.00	0.0000%	0.4000%	0.6000%
7	132	0	0.5	0.8	0.00	0.00	0.0000%	0.4000%	0.6000%
8	104	0	0.4	0.6	0.00	0.00	0.0000%	0.4000%	0.6000%
9	114	1	0.5	0.7	2.19	1.46	0.8772%	0.4000%	0.6000%
10	1,089	8	4.4	6.5	1.84	1.22	0.7346%	0.4000%	0.6000%
Total	*2,656*	*25*	*23.4*	*25.2*	*1.07*	*0.99*	*0.9413%*	*0.8816%*	*0.9482%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 9B — **Calendar Years 2020 - 2024**

Super Annuation Retirement Experience of Judicial Officers — **Males and Females**

Service	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
49	0	0	0.0	0.0	0.00	0.00	0.0000%	5.0000%	5.0000%
50	0	0	0.0	0.0	0.00	0.00	0.0000%	5.0000%	5.0000%
51	0	0	0.0	0.0	0.00	0.00	0.0000%	5.0000%	5.0000%
52	0	0	0.0	0.0	0.00	0.00	0.0000%	5.0000%	5.0000%
53	0	0	0.0	0.0	0.00	0.00	0.0000%	5.0000%	5.0000%
54	1	0	0.1	0.1	0.00	0.00	0.0000%	5.0000%	5.0000%
55	4	0	0.2	0.2	0.00	0.00	0.0000%	5.0000%	5.0000%
56	4	0	0.2	0.2	0.00	0.00	0.0000%	5.0000%	5.0000%
57	5	0	0.3	0.3	0.00	0.00	0.0000%	5.0000%	5.0000%
58	6	0	0.3	0.3	0.00	0.00	0.0000%	5.0000%	5.0000%
59	6	0	0.3	0.3	0.00	0.00	0.0000%	5.0000%	5.0000%
60	161	12	8.1	8.1	1.49	1.49	7.4534%	5.0000%	5.0000%
61	163	5	8.2	8.2	0.61	0.61	3.0675%	5.0000%	5.0000%
62	178	16	8.9	8.9	1.80	1.80	8.9888%	5.0000%	5.0000%
63	185	5	9.3	9.3	0.54	0.54	2.7027%	5.0000%	5.0000%
64	202	12	10.1	10.1	1.19	1.19	5.9406%	5.0000%	5.0000%
65	215	9	21.5	10.8	0.42	0.84	4.1860%	10.0000%	5.0000%
66	230	39	23.0	27.6	1.70	1.41	16.9565%	10.0000%	12.0000%
67	188	23	18.8	22.6	1.22	1.02	12.2340%	10.0000%	12.0000%
68	171	21	17.1	20.5	1.23	1.02	12.2807%	10.0000%	12.0000%
69	146	12	29.2	17.5	0.41	0.68	8.2192%	20.0000%	12.0000%
70	134	14	33.5	16.1	0.42	0.87	10.4478%	25.0000%	12.0000%
71	114	20	22.8	22.8	0.88	0.88	17.5439%	20.0000%	20.0000%
72	86	15	17.2	17.2	0.87	0.87	17.4419%	20.0000%	20.0000%
73	79	15	15.8	15.8	0.95	0.95	18.9873%	20.0000%	20.0000%
74	54	26	10.8	27.0	2.41	0.96	48.1481%	20.0000%	50.0000%
75	17	9	17.0	8.5	0.53	1.06	52.9412%	100.0000%	50.0000%
76	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
77	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
78	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
79	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
80	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	*2,351*	*253*	*274.5*	*254.1*	*0.92*	*1.00*	*10.7614%*	*11.6738%*	*10.8073%*

Table 9B — **Calendar Years 2020 - 2024**

Early Retirement Experience of Judicial Officers — **Males and Females**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
17 to 49	460	1	4.6	4.4	0.22	0.23	0.2174%	1.0000%	0.9600%
50 to 59	1209	15	12.1	11.6	1.24	1.29	1.2407%	1.0000%	0.9600%
Total	*1,669*	*16*	*16.7*	*16.0*	*0.96*	*1.00*	*0.9587%*	*1.0000%*	*0.9600%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 10A | **Calendar Years 2020 - 2024**

Withdrawal Experience of Legislators | **Males and Females**

Service	Life Years Exposed	Number of Withdrawals			Ratio of Actual to		Withdrawal Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
0	17	0	0.7	0.6	0.00	0.00	0.0000%	4.0000%	3.8000%
1	42	2	1.7	1.6	1.19	1.25	4.7619%	4.0000%	3.8000%
2	46	0	1.8	1.7	0.00	0.00	0.0000%	4.0000%	3.8000%
3	37	2	1.5	1.4	1.35	1.42	5.4054%	4.0000%	3.8000%
4	45	4	1.8	1.7	2.22	2.34	8.8889%	4.0000%	3.8000%
5	33	0	1.3	1.3	0.00	0.00	0.0000%	4.0000%	3.8000%
6	26	0	1.0	1.0	0.00	0.00	0.0000%	4.0000%	3.8000%
7	21	0	0.8	0.8	0.00	0.00	0.0000%	4.0000%	3.8000%
8	24	0	1.0	0.9	0.00	0.00	0.0000%	4.0000%	3.8000%
9	23	3	0.9	0.9	3.26	3.43	13.0435%	4.0000%	3.8000%
10	106	5	4.2	4.0	1.18	1.24	4.7170%	4.0000%	3.8000%
Total	*420*	*16*	*16.8*	*16.0*	*0.95*	*1.00*	*3.8095%*	*4.0000%*	*3.8000%*

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 10B — **Calendar Years 2020 - 2024**

Super Annuation Retirement Experience of Legislators — **Males and Females**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
49	0	0	0.0	0.0	0.00	0.00	0.0000%	7.0000%	9.6000%
50	10	1	0.7	1.0	1.43	1.04	10.0000%	7.0000%	9.6000%
51	9	0	0.6	0.9	0.00	0.00	0.0000%	7.0000%	9.6000%
52	10	1	0.7	1.0	1.43	1.04	10.0000%	7.0000%	9.6000%
53	9	1	0.6	0.9	1.59	1.16	11.1111%	7.0000%	9.6000%
54	10	0	0.7	1.0	0.00	0.00	0.0000%	7.0000%	9.6000%
55	16	1	1.1	1.5	0.89	0.65	6.2500%	7.0000%	9.6000%
56	18	2	1.3	1.7	1.59	1.16	11.1111%	7.0000%	9.6000%
57	19	2	1.3	1.8	1.50	1.10	10.5263%	7.0000%	9.6000%
58	18	3	1.3	1.7	2.38	1.74	16.6667%	7.0000%	9.6000%
59	21	2	1.5	2.0	1.36	0.99	9.5238%	7.0000%	9.6000%
60	22	2	1.5	2.1	1.30	0.95	9.0909%	7.0000%	9.6000%
61	23	2	1.6	2.2	1.24	0.91	8.6957%	7.0000%	9.6000%
62	24	3	1.7	2.3	1.79	1.30	12.5000%	7.0000%	9.6000%
63	21	1	2.3	2.7	0.43	0.37	4.7619%	11.0000%	13.0000%
64	23	3	2.5	3.0	1.19	1.00	13.0435%	11.0000%	13.0000%
65	20	4	2.2	2.6	1.82	1.54	20.0000%	11.0000%	13.0000%
66	18	4	2.0	2.3	2.02	1.71	22.2222%	11.0000%	13.0000%
67	15	1	1.7	2.0	0.61	0.51	6.6667%	11.0000%	13.0000%
68	14	1	1.5	1.8	0.65	0.55	7.1429%	11.0000%	13.0000%
69	11	2	1.2	1.4	1.65	1.40	18.1818%	11.0000%	13.0000%
70	11	2	1.0	2.4	2.02	0.83	18.1818%	9.0000%	22.0000%
71	11	1	1.0	2.4	1.01	0.41	9.0909%	9.0000%	22.0000%
72	10	1	0.9	2.2	1.11	0.45	10.0000%	9.0000%	22.0000%
73	8	3	0.7	1.8	4.17	1.70	37.5000%	9.0000%	22.0000%
74	8	1	0.7	1.8	1.39	0.57	12.5000%	9.0000%	22.0000%
75	8	3	0.7	1.8	4.17	1.70	37.5000%	9.0000%	22.0000%
76	6	2	0.5	1.3	3.70	1.52	33.3333%	9.0000%	22.0000%
77	6	1	0.5	1.3	1.85	0.76	16.6667%	9.0000%	22.0000%
78	7	3	0.6	1.5	4.76	1.95	42.8571%	9.0000%	22.0000%
79	2	0	0.2	0.4	0.00	0.00	0.0000%	9.0000%	22.0000%
80	2	0	2.0	2.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	*410*	*53*	*37.0*	*54.9*	*1.43*	*0.97*	*12.9268%*	*9.0195%*	*13.3815%*

Table 10B — **Calendar Years 2020 - 2024**

Early Retirement Experience of Legislators — **Males and Females**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
17 to 49	95	1	2.8	1.0	0.36	1.00	1.0526%	2.9000%	1.0500%
50 to 59	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	*95*	*1*	*2.8*	*1.0*	*0.36*	*1.00*	*1.0526%*	*2.9000%*	*1.0500%*

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Table 11A **Calendar Years 2020 - 2024**

Withdrawal Experience of State Police and Hazardous Duty Employees **Males and Females**

Service	Life Years Exposed	Number of Withdrawals			Ratio of Actual to		Withdrawal Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
0	6,891	1,013	620.2	1,033.7	1.63	0.98	14.7003%	9.0000%	15.0000%
1	6,090	410	304.5	426.3	1.35	0.96	6.7323%	5.0000%	7.0000%
2	5,699	306	171.0	285.0	1.79	1.07	5.3694%	3.0000%	5.0000%
3	5,475	279	164.3	273.8	1.70	1.02	5.0959%	3.0000%	5.0000%
4	5,635	185	112.7	169.1	1.64	1.09	3.2831%	2.0000%	3.0000%
5	5,382	149	107.6	161.5	1.38	0.92	2.7685%	2.0000%	3.0000%
6	4,864	102	48.6	97.3	2.10	1.05	2.0970%	1.0000%	2.0000%
7	4,610	106	25.4	92.2	4.18	1.15	2.2993%	0.5500%	2.0000%
8	3,826	54	21.0	57.4	2.57	0.94	1.4114%	0.5500%	1.5000%
9	3,210	37	17.7	32.1	2.10	1.15	1.1526%	0.5500%	1.0000%
10	30,074	111	90.2	120.3	1.23	0.92	0.3691%	0.3000%	0.4000%
Total	*81,756*	*2,752*	*1,683.2*	*2,748.4*	*1.64*	*1.00*	*3.3661%*	*2.0588%*	*3.3617%*

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Table 11B — **Calendar Years 2020 - 2024**

Super Annuation Retirement Experience of Hazardous Duty Employees — **Males and Females**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
49	0	0	0	0.0	0.00	0.00	0.0000%	10.0000%	10.0000%
50	2,207	404	331	397.3	1.22	1.02	18.3054%	15.0000%	18.0000%
51	1,900	228	190	228.0	1.20	1.00	12.0000%	10.0000%	12.0000%
52	1,810	234	181	217.2	1.29	1.08	12.9282%	10.0000%	12.0000%
53	1,663	217	166	199.6	1.30	1.09	13.0487%	10.0000%	12.0000%
54	1,486	184	149	178.3	1.24	1.03	12.3822%	10.0000%	12.0000%
55	1,699	242	204	237.9	1.19	1.02	14.2437%	12.0000%	14.0000%
56	1,531	183	153	183.7	1.20	1.00	11.9530%	10.0000%	12.0000%
57	1,384	168	138	166.1	1.21	1.01	12.1387%	10.0000%	12.0000%
58	1,237	163	124	148.4	1.32	1.10	13.1770%	10.0000%	12.0000%
59	1,117	149	134	134.0	1.11	1.11	13.3393%	12.0000%	12.0000%
60	978	155	156	156.5	0.99	0.99	15.8487%	16.0000%	16.0000%
61	817	147	131	147.1	1.12	1.00	17.9927%	16.0000%	18.0000%
62	685	147	137	143.9	1.07	1.02	21.4599%	20.0000%	21.0000%
63	550	107	110	115.5	0.97	0.93	19.4545%	20.0000%	21.0000%
64	432	91	86	90.7	1.05	1.00	21.0648%	20.0000%	21.0000%
65	369	120	85	110.7	1.41	1.08	32.5203%	23.0000%	30.0000%
66	256	92	77	89.6	1.20	1.03	35.9375%	30.0000%	35.0000%
67	166	45	42	41.5	1.08	1.08	27.1084%	25.0000%	25.0000%
68	124	28	31	31.0	0.90	0.90	22.5806%	25.0000%	25.0000%
69	101	34	20	30.3	1.68	1.12	33.6634%	20.0000%	30.0000%
70	68	17	14	17.0	1.25	1.00	25.0000%	20.0000%	25.0000%
71	55	12	11	13.8	1.09	0.87	21.8182%	20.0000%	25.0000%
72	46	15	9	11.5	1.63	1.30	32.6087%	20.0000%	25.0000%
73	25	5	5	6.3	1.00	0.80	20.0000%	20.0000%	25.0000%
74	20	3	4	5.0	0.75	0.60	15.0000%	20.0000%	25.0000%
75	20	6	4	5.0	1.50	1.20	30.0000%	20.0000%	25.0000%
76	17	7	3	4.3	2.06	1.65	41.1765%	20.0000%	25.0000%
77	10	2	2	2.5	1.00	0.80	20.0000%	20.0000%	25.0000%
78	8	1	2	2.0	0.63	0.50	12.5000%	20.0000%	25.0000%
79	7	0	1.4	1.8	0.00	0.00	0.0000%	20.0000%	25.0000%
80	5	4	5.0	5.0	0.80	0.80	80.0000%	100.0000%	100.0000%
Total	*20,793*	*3,210*	*2,705.2*	*3,121.2*	*1.19*	*1.03*	*15.4379%*	*13.0103%*	*15.0108%*

Table 11B — **Calendar Years 2020 - 2024**

Early Retirement Experience of State Police and Hazardous Duty Employees — **Males and Females**

Age	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
17 to 49	30686	576	460.3	583.0	1.25	0.99	1.8771%	1.5000%	1.9000%
50 to 59	399	5	0.0	0.0	0.00	0.00	1.2531%	0.0000%	0.0000%
Total	*31,085*	*581*	*460.3*	*583.0*	*1.26*	*1.00*	*1.8691%*	*1.4807%*	*1.8756%*

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Table 12A **Calendar Years 2020 - 2024**

Super Annuation Retirement Experience of State Police **Males and Females**

Service	Life Years Exposed	Number of Retirements			Ratio of Actual to		Retirement Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
19	547	49	41.0	38.3	1.19	1.28	8.9580%	7.5000%	7.0000%
20	577	44	43.3	40.4	1.02	1.09	7.6256%	7.5000%	7.0000%
21	569	23	42.7	39.8	0.54	0.58	4.0422%	7.5000%	7.0000%
22	466	12	35.0	32.6	0.34	0.37	2.5751%	7.5000%	7.0000%
23	589	55	44.2	41.2	1.25	1.33	9.3379%	7.5000%	7.0000%
24	596	347	357.6	357.6	0.97	0.97	58.2215%	60.0000%	60.0000%
25	271	120	162.6	122.0	0.74	0.98	44.2804%	60.0000%	45.0000%
26	148	48	37.0	37.0	1.30	1.30	32.4324%	25.0000%	25.0000%
27	118	23	29.5	29.5	0.78	0.78	19.4915%	25.0000%	25.0000%
28	106	26	26.5	26.5	0.98	0.98	24.5283%	25.0000%	25.0000%
29	78	19	19.5	19.5	0.97	0.97	24.3590%	25.0000%	25.0000%
30	57	15	14.3	14.3	1.05	1.05	26.3158%	25.0000%	25.0000%
31	46	16	11.5	11.5	1.39	1.39	34.7826%	25.0000%	25.0000%
32	30	7	7.5	7.5	0.93	0.93	23.3333%	25.0000%	25.0000%
33	23	5	5.8	5.8	0.87	0.87	21.7391%	25.0000%	25.0000%
34	20	6	5.0	5.0	1.20	1.20	30.0000%	25.0000%	25.0000%
35	17	6	4.3	4.3	1.41	1.41	35.2941%	25.0000%	25.0000%
36	13	9	5.2	5.2	1.73	1.73	69.2308%	40.0000%	40.0000%
37	3	0	1.2	1.2	0.00	0.00	0.0000%	40.0000%	40.0000%
38	3	1	1.2	1.2	0.83	0.83	33.3333%	40.0000%	40.0000%
39	1	0	0.4	0.4	0.00	0.00	0.0000%	40.0000%	40.0000%
40	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	*4,279*	*831*	*896.1*	*841.7*	*0.93*	*0.99*	*19.4204%*	*20.9406%*	*19.6695%*