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Commonwealth of Pennsylvania State Employees' Retirement System 17th Investigation of Actuarial Experience

January 1, 2006 to December 31, 2010

HayGroup®



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**Seventeenth Investigation of Actuarial Experience of the State Employees’
Retirement System of the Commonwealth of Pennsylvania
Review of Experience from January 1, 2006 to December 31, 2010**

Contents

I. Introduction & Executive Summary	3
II. Background	9
III. Analysis of Economic Experience and Recommended Economic Assumptions	11
IV. Analysis of Demographic Experience and Recommended Demographic Assumptions	19
V. Other Experience Analyses	34
VI. Conclusion	36
VII. Considerations for Members Accruing Benefits Under Act 120	37
VIII. Actuarial Certification	39
IX. Glossary	40
Appendix – Recommended Assumptions	41

I. Introduction & Executive Summary

Introduction

This is the seventeenth in a series of investigations of actuarial experience for the State Employees' Retirement System (SERS) for the Commonwealth of Pennsylvania. This report is based upon economic and demographic experience from January 1, 2006 through December 31, 2010. 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 take into account 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, 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. Since the previous experience study, the ASOP covering the selection of demographic assumptions (ASOP 35) has been revised and reissued. The primary reason for the revision (the main standard was issued in 1999) was to include an explicit recognition the actuary should give to the selection of the mortality assumption, given improvements in life expectancy, and a requirement for the actuary to explicitly disclose the mortality improvement assumption. This issue is addressed explicitly in the section discussing mortality.

- 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 option form election rates) and our conclusions regarding the related actuarial assumptions.
- Section VI provides an overview and final commentary on Hay Group's recommendations.
- Section VII sets out considerations in the selection of assumptions for employees subject to the provisions of Act 120.
- Section VIII provides the Actuarial Certification for the report.
- Section IX defines certain terms used in this report.
- A full set of our recommended assumptions is included in the tables in the Appendix.

The following Executive Summary provides an overview of Hay Group's findings and recommendations.

Executive Summary

The specific objective of this analysis is to develop economic and demographic assumptions as to the expected experience of the System. In general, it is good actuarial practice to select the actuarial valuation assumptions taking into account the System’s actual experience.

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 8.0 percent per year (compounded annually) be continued,
- The current inflation assumption of 3.0 percent per year be reduced to 2.75 percent per year,
- Consistent with the 0.25 percent change in inflation, the current general salary increase assumption of 3.3 percent per year be reduced to 3.05 percent per year and
- The current career salary increase assumptions (which vary by length of service) be reduced by varying amounts depending upon the employee’s length of service at all service levels.

Table I-1 below shows, for the first three recommendations listed above, (i) Hay Group’s recommended assumptions, (ii) the current assumptions, which have now been in use for the past two actuarial valuations (2008 and 2009), and (iii) the prior assumptions, which were utilized for the preceding thirteen years of actuarial valuations (from 1995 through 2007).

Table I-1 Recommended vs. Current vs. Prior Economic Assumptions					
	Annual Inflation	Investment Return		Salary Growth	
		Nominal	Real¹	Nominal	Real¹
Recommended	2.75%	8.00%	5.1%	3.05%	0.3%
Current 2008 & 2009	3.00%	8.00%	4.9%	3.30%	0.3%
Prior 1995 – 2007	3.00%	8.50%	5.3%	3.30%	0.3%

For the specific service-related reductions we are recommending the career salary increase assumptions, per the fourth recommendation listed above, as set out in Table A-1 in the Appendix.

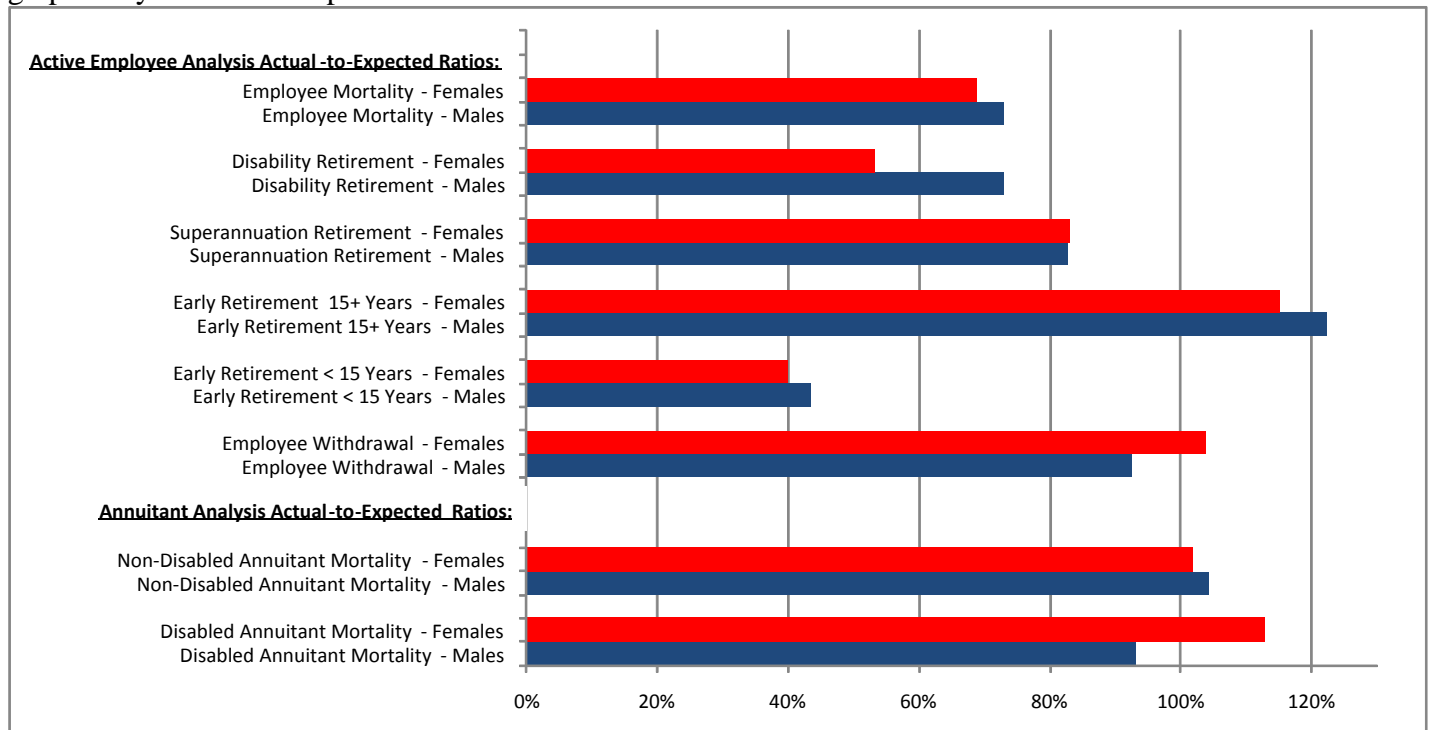
¹ The real investment return and real salary growth rate are determined using the formula $(1+real) = (1+nominal)/(1+inflation)$. The rates shown are annual rates.

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 Class AA and Class A general employees comprise over 80 percent of the membership of SERS. The remaining 20 percent comprise the State Police, members of the General Assembly, members of the judiciary, and other members eligible to retire at age 50.

The actual-to-expected ratios for our Class AA and Class A general employee analyses 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 annuitant mortality (both disabled and non-disabled) as well as for employee withdrawal. Experience was lighter than expected for employee mortality (i.e., in-service deaths) as well as disability retirements. With regard to retirement, we saw heavier than expected early retirement among employees with 15 or more years of service and much lighter than expected early retirement among employees with less than 15 years of service. Lastly, superannuation retirement experience was lighter than expected, with significant variation by year.

As a result of the above observations, Hay Group is recommending the following demographic assumption changes:

- With respect to the assumptions applicable to all active employees:
 - Decreases in the mortality rates for females and males for most ages over age 49; increases in the rates for males at all ages under age 50 (See Table A-2)
 - Significant decreases in the disability retirement rates for both females and males at all ages (See Table A-3)
- With respect to the assumptions applicable to Class AA and Class A general employees:
 - Decreases in the superannuation rates for both females and males at almost all ages (See Table A-4)
 - Increases in the early retirement rates for those with 15 or more years of service for both females and males at most ages over 50; decreases in the early retirement rates for those with 15 or more years of service for both females and males at all ages under 51 (See Table A-5)
 - Significant decreases in the early retirement rates for those with fewer than 15 years of service for both females and males at most ages (See Table A-6)
 - Increases in the employee withdrawal rates for females and males at younger ages and shorter service durations; and decreases in the withdrawal rates at longer-service durations (See Table A-7)
- With respect to the assumptions applicable to annuitants and survivors:
 - Decreases in the non-disabled annuitant and survivor mortality rates for both females and males at most ages 55 through 94 (See Table A-8)
 - Increases in the disabled annuitant mortality rates for females at all ages; decreases in the disabled annuitant mortality rates for males at all ages (See Table A-9)

Hay Group also studied the 2006-2010 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, increases in the superannuation rates for both females and males at all service levels (See Table A-10)
- With respect to the superannuation assumptions applicable to active Hazardous Duty Employees, other than State Police, increases in the superannuation rates for both females and males at ages 59-61; decreases in the superannuation rates for both females and males at ages over 61 (See Table A-11)

- With respect to the assumptions applicable to active State Police and other Hazardous Duty Employees:
 - Decreases in the early retirement rates for both females and males (See Table A-12)
 - Decreases in the employee withdrawal rates for females and males at all service levels except during the first year of service, for which an increased rate is recommended (See Table A-13)
- With respect to the assumptions applicable to active Legislators:
 - Significant increases in the superannuation rates for both females and males at all ages (See Table A-14)
 - Slight decreases in the early retirement rates for both females and males at all ages (See Table A-15)
 - Increases in the employee withdrawal rates for females and males at all service levels (See Table A-16)
- With respect to the assumptions applicable to active Judicial Officers:
 - Significant increases in the superannuation rates for both females and males at all ages over 58 (See Table -17)
 - Significant increases in the early retirement rates for both females and males at all ages (See Table A-18)
 - Increases in the employee withdrawal rates for females and males at all service levels (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 18 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;
- 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.

The Class AA and Class A general employees comprise over 80 percent of the membership of SERS.

Age and Service Requirements for Superannuation (full formula benefits)

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.
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.

Class C

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.
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Other Hazardous Duty

Age 50 with three years of service.

Class D-3 & 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 effect the valuation results. For the 2008 valuation the investment return rate was reduced from 8.50 percent to 8.00 percent, while there was no change made at that time to the salary growth rate. Changes in the investment return assumption effects 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 three-years' 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 from the prior experience investigation 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 real investment return is $[1.08 / 1.03] - 1.0$, which is approximately 4.9%).

Table III-1 Current Economic Assumptions					
	Annual Inflation	Investment Return		Salary Growth	
		Nominal	Real	Nominal	Real
Current 2008 & 2009	3.00%	8.00%	4.9%	3.30%	0.3%
Prior 1995 – 2007	3.00%	8.50%	5.3%	3.30%	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 2004 was 190.3 and the CPI-U

for December of 2005 was 196.8, which resulted in an annual inflation for 2005 of 3.4 percent $[(196.8/190.3) - 1 = 3.4\%]$.

Table III-2
Annual Rates of Growth

Year	Inflation	Investment Return		Salary Growth	
		Nominal	Real	Nominal	Real
1990	6.1	1.0	(4.8)	5.0	(1.0)
1991	3.1	22.6	19.0	1.0	(2.0)
1992	2.9	7.4	4.4	2.1	(0.8)
1993	2.7	13.2	10.2	5.1	2.3
1994	2.7	(1.1)	(3.7)	3.9	1.2
1995	2.5	25.2	22.1	3.8	1.2
1996	3.3	15.9	12.2	2.0	(1.3)
1997	1.7	18.0	16.0	3.0	1.3
1998	1.6	16.3	14.5	3.0	1.4
1999	2.7	19.9	16.8	3.0	0.3
2000	3.4	2.2	(1.1)	3.0	(0.4)
2001	1.6	(7.9)	(9.3)	3.3	1.7
2002	2.4	(10.9)	(13.0)	3.5	1.1
2003	1.9	24.3	22.0	2.0	0.1
2004	3.3	15.1	11.4	1.9	(1.4)
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	1.1 ²	5.0 ³	Not Yet Available	Not Yet Available	Not Yet Available
Averages					
2005-2009 (5 years)	2.55	3.97	1.39	3.06	0.51
2000-2009 (10 years)	2.53	3.84	1.29	2.90	0.36
1995-2009 (15 years)	2.48	8.69	6.07	2.92	0.43
1990-2009 (20 years)	2.73	8.59	5.71	3.04	0.31

² November 2009 to November 2010

³ January 1, 2010 through September 30, 2010

Inflation

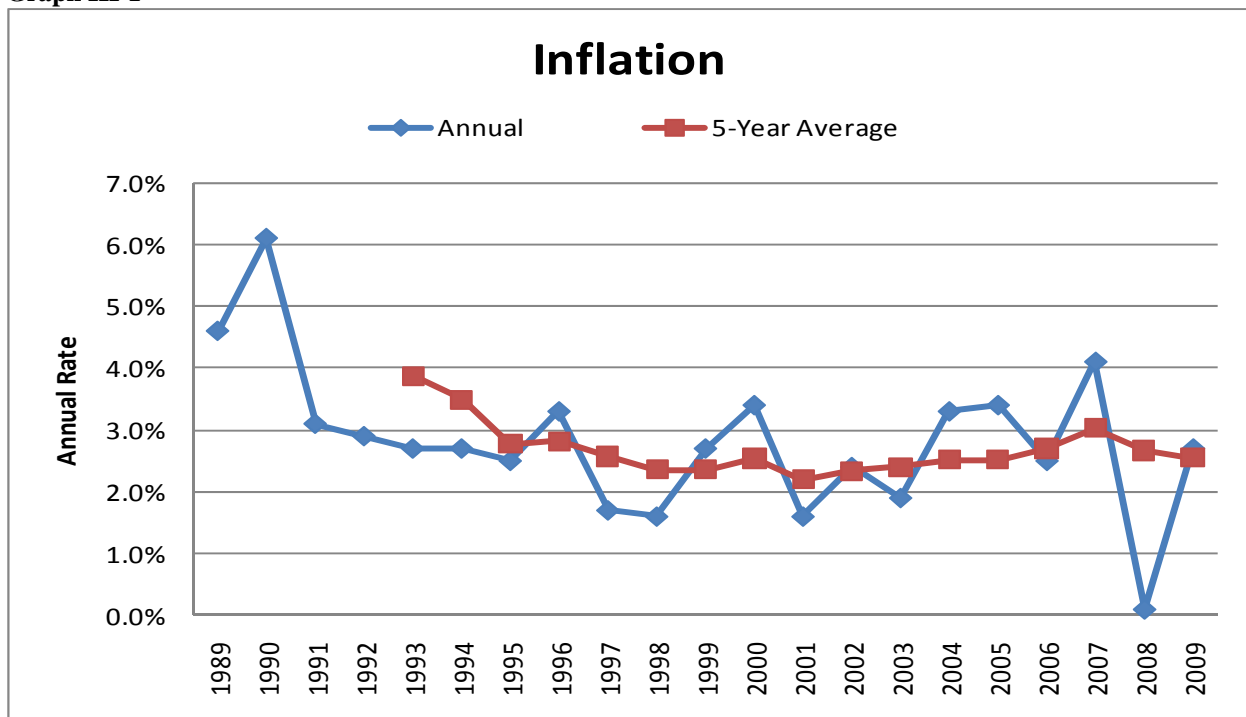
While inflation does not directly affect SERS liabilities or assets (as it would if automatic COLAs applied under SERS), it is an important consideration in our review of both the investment return and general salary increase assumptions. There has been a gradual decline in inflation in the United States, with the rolling five-year average staying below 3 percent for 14 of the past 15 years. The significant federal stimulus monies and expansionary monetary policies have prevented the US economy from entering a deflationary phase but are unlikely to lead to an increase in inflation in the long-term.

SERS investment advisors Rocaton, in their 2010 Long-Term Capital Market Forecast stated that their 10-year inflation forecast was 2.4 percent, based on the Livingston Survey of Professional Forecasters. While we have given some weight to this inflation forecast, it does not project far enough into the future for purposes of setting the inflation assumption for the valuation. The Social Security Administration, for purposes of cost projections included in their most recent annual Trustees' Reports (based upon their "intermediate assumptions"), projects that future annual inflation will be at a rate of 2.8 percent.

We believe, based upon historical inflation rates (as shown in Table III-2) and our current expectations for the future (giving appropriate consideration to the recent stimulus, monetary policy, and supportive points covered in the prior paragraph) that it is reasonable and appropriate to recommend lowering the anticipated annual inflation assumption from 3.0 percent to 2.75 percent.

While the annual inflation rate has ranged from a low of 0.1 percent to a high of 6.1 percent, the rolling 5-year average has ranged between 2.20 percent and 3.87 percent over the last 15 years.

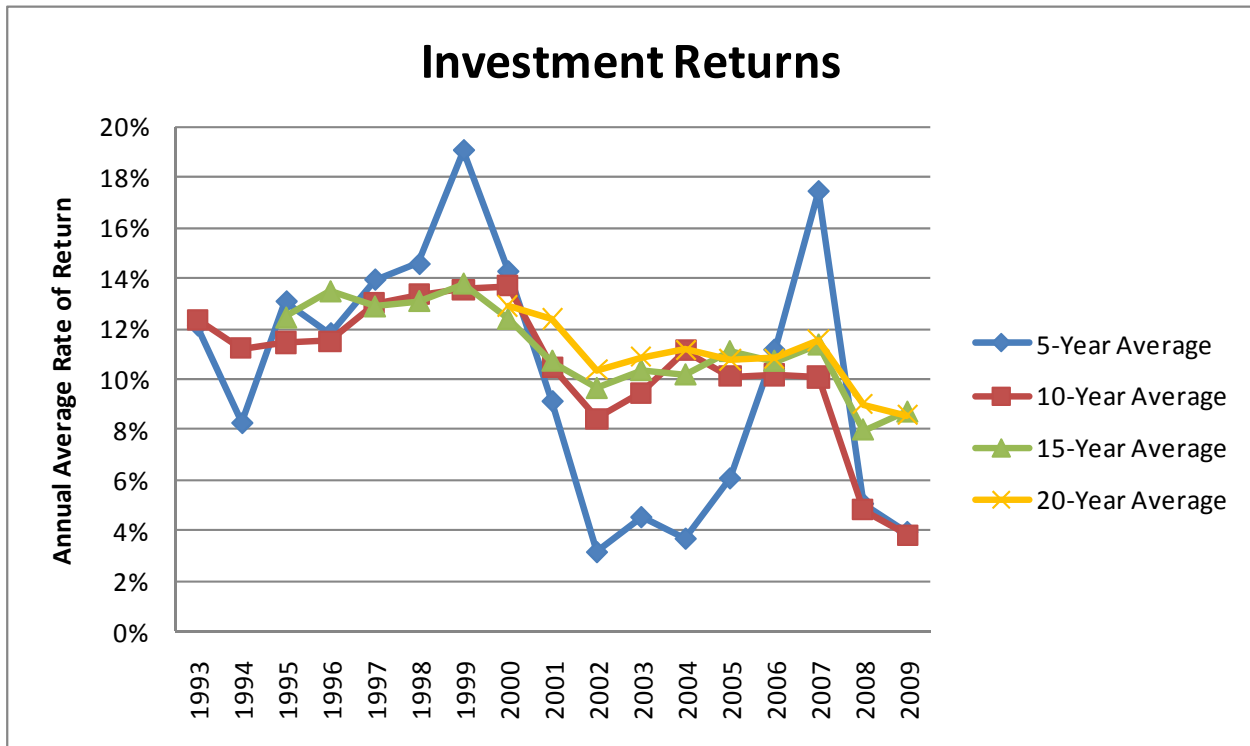
Graph III-1



Investment Return

As shown in Table III-2, the 15-year and 20-year average annual rates of return were 8.7% and 8.6% respectively. The shorter-term averages over the last 5 and 10 years (4% and 3.8% respectively) were materially affected by the severe market decline of 2008.

Graph III-2



We believe that the analysis and investment projection support the continuation of an investment return assumption of 8.0 percent. In fact, given the higher investment returns during the past 15 to 20 years, an 8.0 percent assumption remains somewhat conservative.

This conclusion is supported by SERS' investment advisors, Rocaton Investment Advisors, who currently project that future investment returns on SERS assets will be 8.0 percent per year based on the target asset allocation. The current asset allocation includes a heavier weighting in alternative investments producing an expected return of 8.47 percent.

We believe that continuation of the 8.0 percent investment return assumption still affords SERS and the Board a sufficient and appropriate margin of conservatism considering that returns over the past fifteen to twenty years have averaged more than 8.0 percent (namely 8.7 percent over fifteen years and 8.6 percent over the past twenty years).

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 average 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 3.0 percent and a real salary growth rate of 0.3 percent for a total of 3.3 percent. Consistent with our recommendation to reduce the long-term inflation assumption by 25 basis points, we recommend reducing the general salary increase assumption to 3.05 percent.

The recommended economic assumptions are shown in Table III-3

Table III-3 Recommended Economic Assumptions				
Annual Inflation	Investment Return		Salary Growth	
	Nominal	Real	Nominal	Real
2.75%	8.00%	5.1%	3.05%	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 2005 to 2009. The data was verified and a limited number of records were removed where the year over year pay either increased or decreased by more than 50 percent.

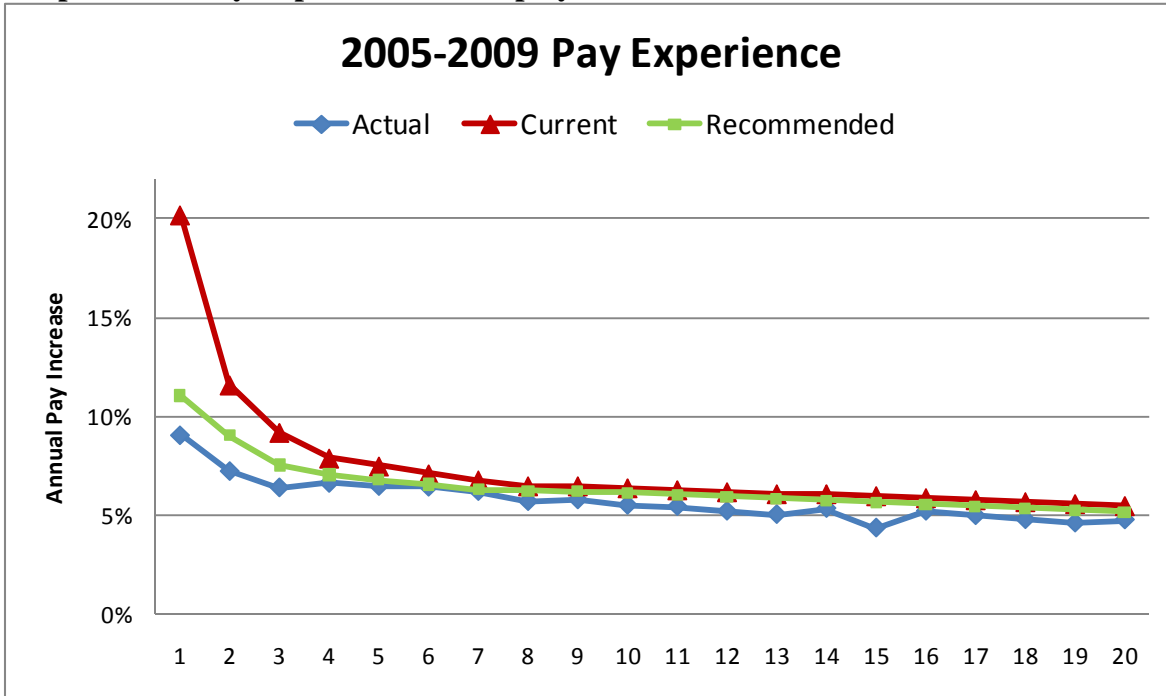
Three events affected the 2005-2009 salary increase experience. First, the period includes two years in which management employees had pay freezes: 2008 and 2009. Management employees comprise less than 20 percent of employees and total payroll. Second, one of the years included 27 pay periods, rather than the usual 26 pay periods, resulting in about a 4 percent higher salary for about half the employees. This event (27 pay periods in a year) will not occur in every experience study, so it is an infrequent event that should be taken into consideration. Third, as part of union negotiations, a one-time payment of \$1,250 was included in the first year of the contract in July 2007. We examined the year by year pay increases by size of increase as well as the number of members who received no increase and concluded that the net impact of these three events was generally neutral. Therefore, we concluded that the salary increase data could be used in aggregate without adjustment.

Graph III-3 shows the total pay experience for 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.

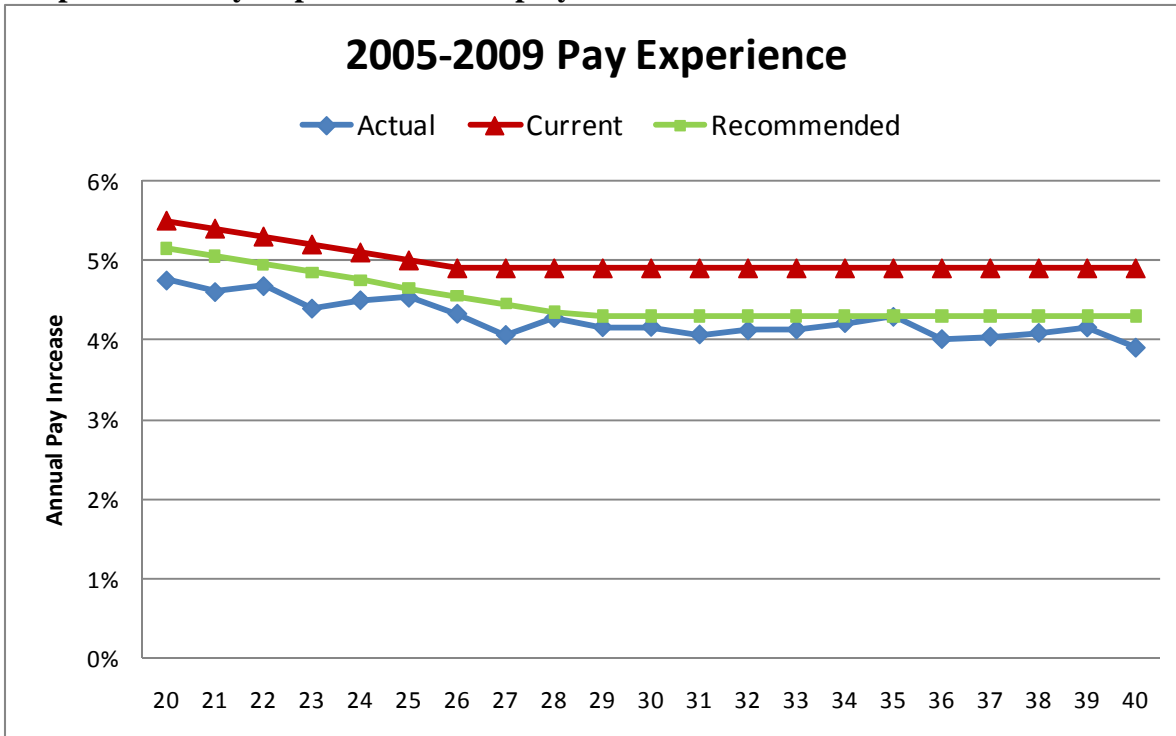
Graph III-3 shows that the pattern of higher increases in the first years of employment continues; however, the rate of increase was much lower than expected for those in their first three years of employment. The pattern of the actual salary increases otherwise conforms well with the pattern of the current assumption, with actual increases at least 0.75 percent lower than expected at all durations.

Graph III-4 shows the pattern of increases for employees with more than 20 years of service also conforms well with the valuation assumption, with the actual rate 0.75 percent lower on average at all durations.

Graph III-3 – Pay Experience for Employees with less than 21 Years of Service



Graph III-4 – Pay Experience for Employees with 20 or more Years of Service



Based upon our pay 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 2005-2009 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.

Tables IV-1 through IV-6 below compare the actual terminations that have occurred in the 2006-2010 period to the expected results based on the current set of actuarial demographic assumptions used in the 2009 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 177, or approximately 69 percent of the 258 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 on active duty 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 553 deaths. Based on the current assumptions, we would have expected 773 deaths during the 4 and a half year period. The resulting actual-to-expected ratio was 0.72. 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 continues to improve so it is not surprising that the actual deaths during this recent period are lower than expected.

We propose to adjust the current rates to produce an actual-to-expected ratio closer to 1.0. Unlike post-retirement mortality, lower mortality (fewer deaths) among active participants would reduce benefits. Therefore, the assumptions we are proposing are somewhat conservative.

**TABLE IV-1
Employees Leaving Active Employment Because of Death**

	Actual Deaths	Expected Deaths	Ratio Actual-to- Expected	Ratio with Recommended Rates
	2006-2010	2006-2010	2006-2010	2011-2015
Female Deaths	177	258	69%	86%
Male Deaths	376	515	73%	90%
Total Deaths	553	773	72%	89%

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 service requirement.

The data on terminations included 1,333 disability retirements. However, 158 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 1,175 members who became disabled before superannuation age.

The total number of disability retirement terminations included in this analysis was 1,175. We would have expected 2,178 disability retirements during the same period, based on the current assumptions. The actual disabilities were 39 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 with Recommended Rates
	2006-2010	2006-2010	2006-2010	2011-2015
Female Disabilities	604	1,283	47%	86%
Male Disabilities	571	895	64%	85%
Total Disabilities	1,175	2,178	61%	85%

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 part of the 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	Expected with Recommended Rates
	2006-2010	2006-2010	2006-2010	2011-2015
Female Retirements	5,146	6,109	84%	101%
Male Retirements	5,821	6,944	84%	94%
Total Retirements	10,967	13,053	84%	97%

The overall experience was a lower number of retirements than expected, which implies employees are retiring later. The experience was affected by the change in retiree healthcare cost-sharing, which resulted in a surge of retirements in 2007, as shown in Table IV-4.

Table IV-4

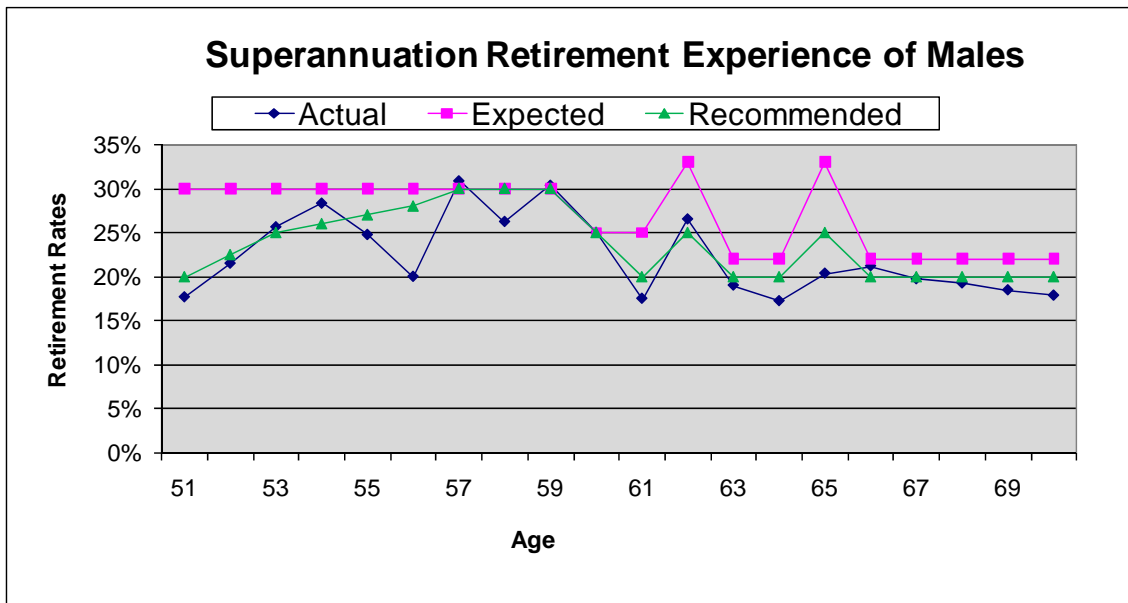
Ratio of Actual to Expected Superannuation Retirements by Year

Year	2006	2007	2008	2009	2010	Total
Ratio of Actual-to-Expected	57%	122%	61%	68%	112%	84%

The retirements in 2007 pulled forward some of the retirements that would have occurred in 2008 and later years. Although the 2010 experience only represents six months experience, it was slightly above the expected number. The retirement rates were adjusted to reflect the overall trend observed, with the 2007 surge pulling forward some retirements, against an overall trend of slightly lower rates of retirement at the earliest eligible ages and after age 60. The experience of female employees' retirement under age 60 is lighter than for males and a sufficiently different pattern to justify a separate set of rates.

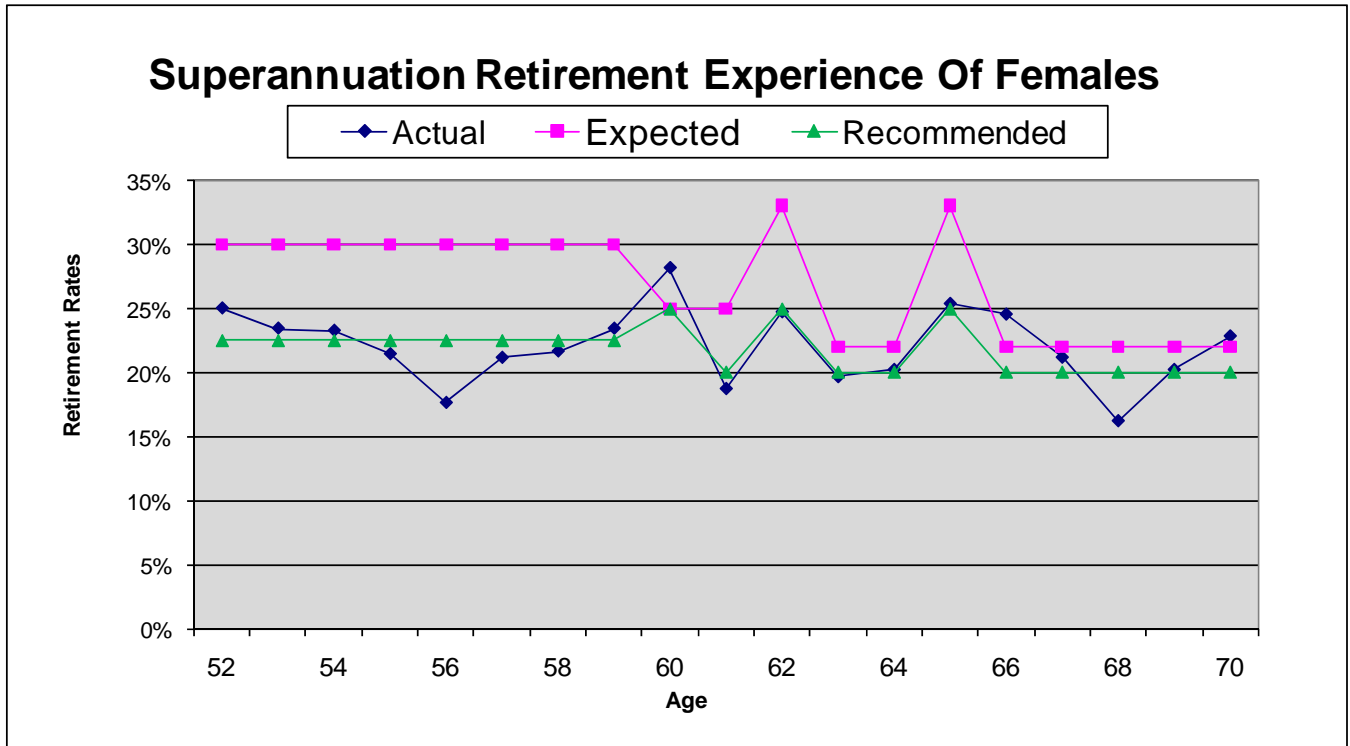
The following charts show the retirement experience by age at retirement. The current assumption was 30 percent for ages 51 through 59, higher rates at ages 62 and 65 (Social Security Early Retirement Eligibility and Medicare Eligibility respectively).

Graph IV-1 – Male Superannuation Retirement Experience



The observed retirement pattern for females was lighter than that for males for retirement before age 60. The difference between the male retirement experience and the female retirement experience is large enough to warrant separate rates for males and females. The recommended rates continue to anticipate a spike at ages 62 and 65.

Graph IV-2 – Female Superannuation Retirement Experience



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 three categories. These are (1) non-vested separations, (2) vested separations who take immediate early retirement benefits and (3) vested separations who defer their benefits until superannuation age. Non-vested separations are those who do not have five years of service upon separation. We examined those with more than five years of service and found that 74 percent of those with 5 to 14 years of service elected an immediate annuity and 84 percent of those with 15 or more years of service elected an immediate annuity. We recommend assuming that 75 percent of those with 5 to 14 years of service and all (100 percent) of those with 15 or more years of service will elect an immediate annuity. The current assumptions are 60 percent of those with 5 to 14 years of service and 100 percent of those with 15 or more years of service.

Our analysis also showed that the greater than expected number of early retirements with 15+ years of service was due primarily to the change in cost-sharing for retiree healthcare coverage. For employees who retired before July 1, 2005, the Commonwealth pays 100 percent of the cost. Commonwealth employees who retire on or after July 1, 2005 are required to pay retiree contributions as a condition of receiving retiree medical coverage. For employees who retired after June 30, 2005, and before July 1, 2007, the retiree contribution was set at 1 percent of the employee's final salary. Commonwealth employees who retire on or after July 1, 2007, are required to pay retiree contributions at the same rate as active employees, phased in as follows: 1 percent of employee's final salary for FY 2007-2008, 1.5 percent of final salary for FY 2008-2009, 2 percent of final salary for FY 2009-2010 and 3 percent of final salary thereafter.

In addition to the introduction of higher retiree contributions, the eligibility for retiree healthcare benefits was lengthened. For employees (other than a defined group of "grandfathered employees"), eligibility for retiree medical benefits is restricted to employees who retire with 20 or more years of service.

**TABLE IV-5
Other Separations From Active Employment**

	Actual Separations 2006-2010	Expected Separations 2006-2010	Ratio Actual-to-Expected 2006-2010	Ratio with Recommended Rates 2011-2015
Female Separations	9,568	10,574	0.90	1.02
Male Separations	8,564	9,548	0.89	0.93
Total Separations	18,132	20,122	0.90	0.97

The following charts show the withdrawal experience by age. The valuation assumptions include select and ultimate rates, that is higher 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 the withdrawal experience at the younger ages was materially higher than expected. From age 30, the observed rates were at or slightly below the expected rates. During periods of economic downturn, voluntary termination rates are typically lower, as employees find fewer employment opportunities. We therefore do not recommend changes to the rates for longer service and at the older ages, but are proposing increases in the rates at the younger ages and early service years for both males and females.

Chart IV-3 – Male Withdrawal Experience

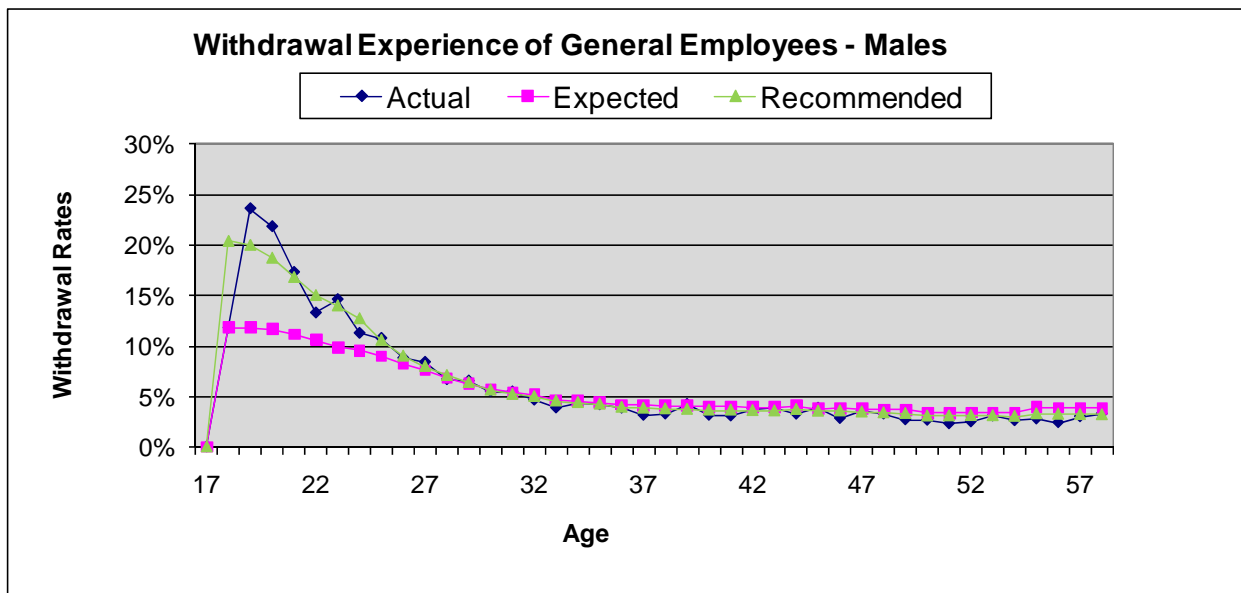


Chart IV-4 – Female Withdrawal Experience

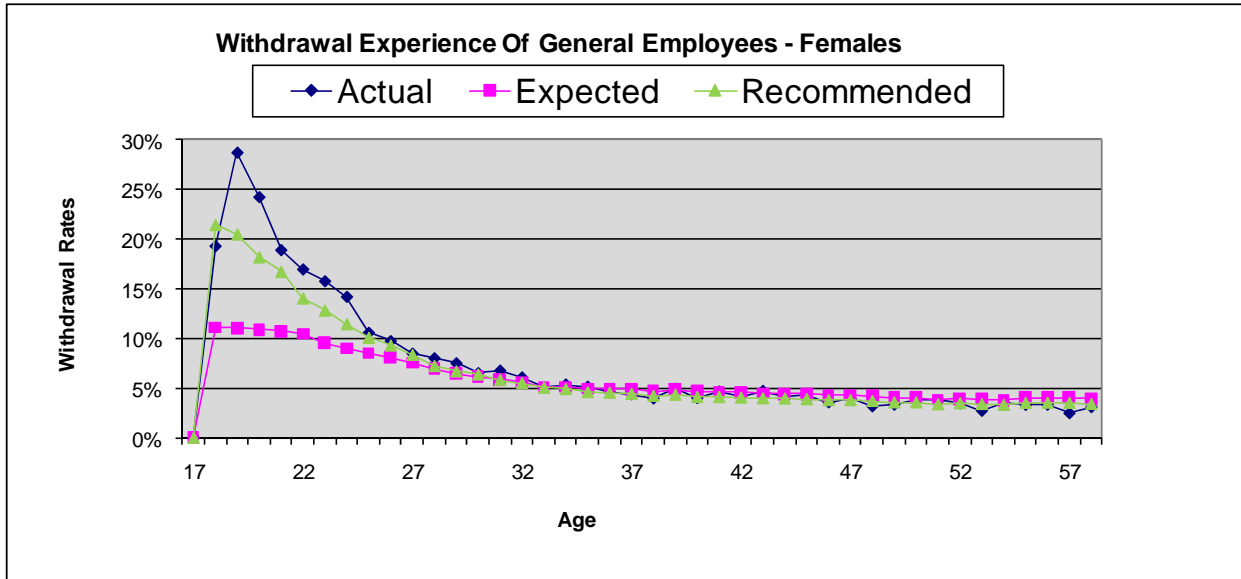


Table IV-6 summarizes the total actual terminations, expected terminations based on the current rates, the actual-to-expected ratio, and the actual-to-expected ratio based upon the recommended rates.

**TABLE IV-6
Total Employees Leaving Active Employment**

	Actual Terminations	Expected In Valuation	Ratio Actual-to-Expected	Ratio with Recommended Rates
	2006-2010	2006-2010	2006-2010	2011-2015
Deaths	553	773	0.72	0.89
Disabilities	1,175	2,178	0.54	0.85
Superannuation Retirements	10,967	13,052	0.84	0.97
Other Separations	18,132	20,121	0.90	0.97
TOTAL	30,827	36,124	0.85	0.97

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 do 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 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. We 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 four and a half year study period.

We recommend that the Board adopt 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 with Recommended Rates
	2006-2010	2006-2010	2006-2010	2011-2015
Superannuation				
State Police With More Than 20 Years of Service	575	331	1.74	1.03
Other Hazardous Duty	1,938	2,364	0.82	1.00
Legislators	81	21	3.82	1.00
Members of the Judiciary	192	89	2.17	0.98
Early Retirement				
Hazardous Duty and State Police	515	590	0.87	1.01
Legislators	9	12	0.75	0.95
Members of the Judiciary	30	7	4.22	1.00
Withdrawal				
Hazardous Duty and State Police	1,346	1,625	0.83	0.99
Legislators	22	17	1.30	1.01
Members of the Judiciary	19	8	2.27	1.02

Analysis of Annuitant Mortality

The actual and expected numbers of deaths among annuitants are shown in Table IV-8 through Table IV-11. The annuitants are categorized as non-disabled retirees, disabled retirees, and survivors. The survivor category also includes alternate payees.

The current assumptions expected 7,654 deaths for male annuitants compared to the actual deaths of 7,910 or an actual-to-expected ratio of 1.03. For females, the expected deaths were 7,483 compared to actual deaths of 7,673 or an actual-to-expected ratio also of 1.03.

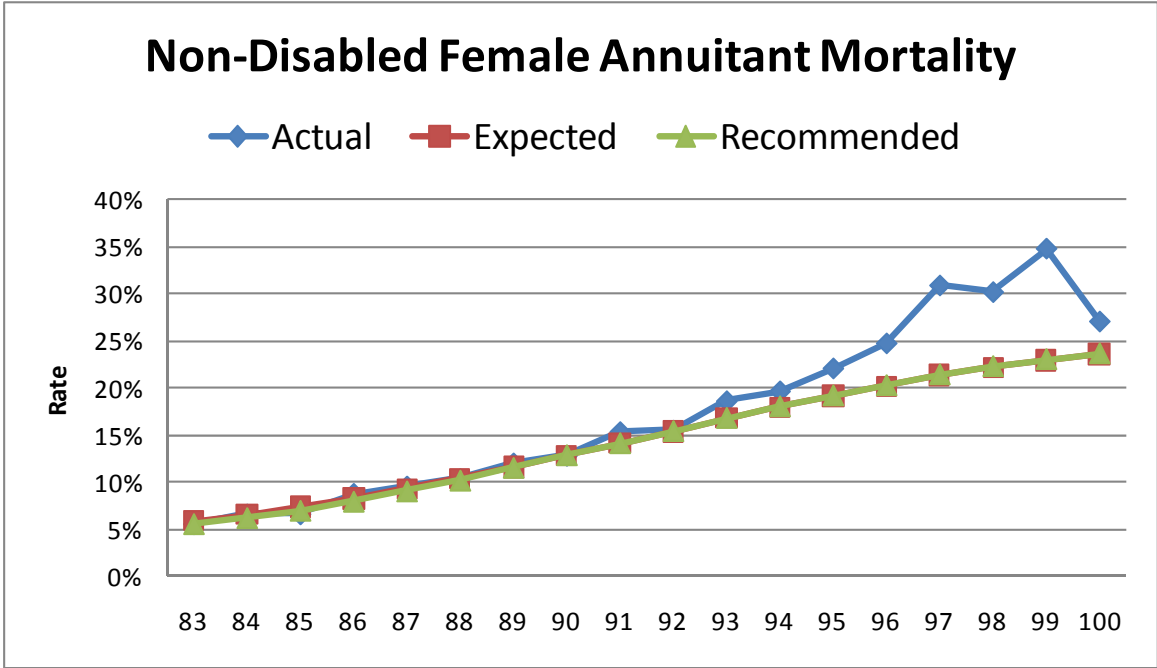
Mortality has generally improved throughout the last 100 years so we had set rates that allowed for that improvement in the future. The mortality assumption for annuitants is one of the most important factors in the valuation. As a result, we recommended mortality rates that would project an improvement in mortality.

The number of deaths among non-disabled annuitants (males and females) was 3 percent greater than expected and the number of deaths among disabled annuitants (males and females) was 1 percent greater than expected. Overall, the total number of deaths was 3 percent greater than expected. In the context of a pension plan, adverse mortality experience occurs if retirees live longer and, therefore, draw more benefits than predicted by the table (i.e., adverse experience is when a smaller number of deaths occur than expected). Since life expectancies nationally and among SERS members have continually increased, and that in turn increases the cost of the pension plan, it would be prudent to set mortality rates that have a margin reflecting that improvement. In other words, the mortality rates should be set to project fewer deaths than shown by recent experience.

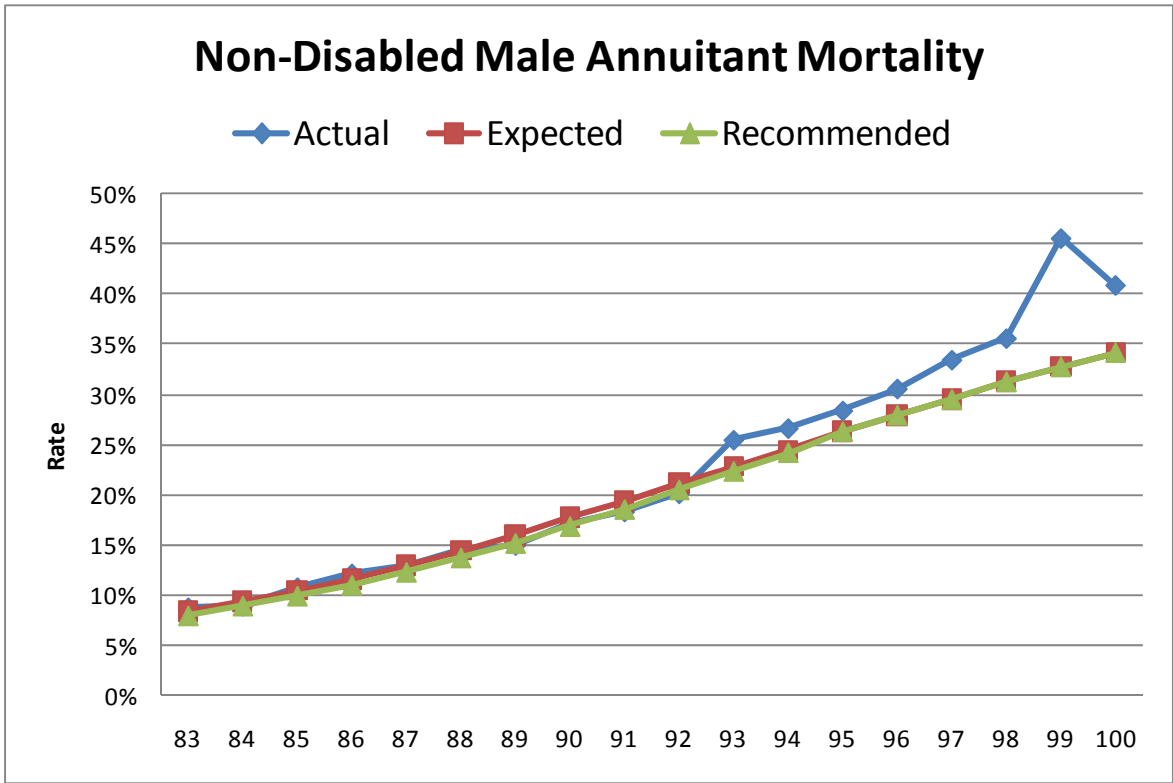
The current assumption was based on the RP-2000 tables projected to 2008, and included a margin for mortality improvement of about 10 percent. The actual deaths for non-disabled annuitants were 104 percent of expected for males and 102 percent of expected for females, indicating that some improvement in mortality has occurred. We therefore propose adjustments to the current table to provide an additional margin for mortality improvement at ages 64 through age 94 for males and ages 55 through age 89 for females. The observed mortality was much higher than expected at the advanced ages, as shown in the following charts, so no mortality improvement was applied after age 94. For younger annuitants, as shown in Table IV-8, we observed that the ratio of actual to expected deaths for males already included an adequate margin for mortality improvement at ages under age 65. For females, the observed ratio of actual to expected has an adequate margin for improvement for ages under 55. For females aged 55 and older, adjustments were made to provide an additional margin for future improvements.

Table IV-8				
Age	Ratio of Actual to		Ratio of Actual to	
	Expected Males	Recommended Males	Expected Females	Recommended Females
50-54	123%	123%	130%	130%
55-59	140%	140%	109%	116%
60-64	115%	115%	92%	106%

Graph IV-5 – Non-Disabled Female Annuitant Mortality Experience



Graph IV-6 – Non-Disabled Male Annuitant Mortality Experience



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 significant additional losses or gains resulting from the exercise of optional elections at retirement. The optional elections do result in overall losses, in any event, because they are, by law, based on 4 percent interest rather than the 8 percent interest assumption used for actuarial funding.

However, we believe 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. The current set of actuarial equivalence factors were reasonable given life expectancies at the time of their adoption and they continue to reflect life expectancies fairly closely. As shown in Table IV-11 the current experience is only 103 percent of that expected during the study period. Therefore, we recommend that the actuarial equivalence factors remain unchanged but that the issue be reconsidered at the time of the next experience study.

**TABLE IV-9
Deaths of Male Annuitants**

	Actual Deaths	Expected Deaths	Ratio Actual-to- Expected	Expected with Recommended Rates	Ratio Actual-to- Expected
	2006-2010	2006-2010	2006-2010	2006-2010	2011-2015
Non-disabled Retirees and Survivors	7,262	6,957	1.04	6,671	1.09
Disabled Retirees	648	697	0.93	662	0.98
TOTAL	7,910	7,654	1.03	7,333	1.08

**TABLE IV-10
Deaths of Female Annuitants**

	Actual Deaths	Expected Deaths	Ratio Actual-to- Expected	Expected with Recommended Rates	Ratio Actual-to- Expected
	2006-2010	2006-2010	2006-2010	2006-2010	2011-2015
Non-disabled Retirees and Survivors	7,152	7,022	1.02	6,705	1.07
Disabled Retirees	521	461	1.13	496	1.05
TOTAL	7,673	7,483	1.03	7,201	1.06

**TABLE IV-11
Total Deaths of Annuitants**

	Actual Deaths	Expected Deaths	Ratio Actual-to- Expected	Expected with Recommended Rates	Ratio Actual-to- Expected
	2006-2010	2006-2010	2006-2010	2006-2010	2011-2015
Non-disabled Retirees and Survivors	14,414	13,979	1.03	13,376	1.08
Disabled Retirees	1,169	1,158	1.01	1,158	1.00
TOTAL	15,583	15,137	1.03	14,534	1.07

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 an increase in the selection of an Option 1 form of benefit and a decline in the prevalence of Option 2, 3 or other forms of benefit with Option 1.

TABLE V-1
Assumed Elections of Options at Retirement

Election	Current Assumption	Experience	Recommended Assumption
I. Single Life Annuity	32%	32.6%	33%
II. Option 1	28%	38.5%	41%
III. Option 2 or 3 or other percentage survivor	27%	24.4%	26%
IV. Option 1 combined with 2, 3 or other	13%	4.5%	Included in II and III.
V. Total	100%	100%	100%
VI. Election Including Option 4	84%	84.7%	85%

The recommended assumptions are shown in the table and as IV is combined with II for valuation purposes, these assumptions are very similar to the current assumptions. Eleven percent of the Option 4 withdrawals were partial, but we recommend assuming the maximum permitted withdrawals for Option 4 elections. That will be slightly conservative since partial withdrawals are less costly.

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.

We recommend the continued use of the current assumptions.

VI. Conclusion

Our recommended changes, in total, would continue the Board policy of establishing moderately conservative assumptions. The assumptions, as a set, are conservative in that they produce a somewhat higher employer cost than would be produced without including the conservatism. Use of the recommended set of assumptions would allow some margin for adverse experience without significantly overstating the current cost of the system.

Most of the demographic assumptions were set to be close to or the same as experience in the last five years. We propose two deviations from that approach that, we believe, are justified by the analysis of those particular rates. First, as in the past, we are recommending adding a margin to the annuitant mortality rates to anticipate continued improvement in mortality. The SERS experience shows some signs that the continuous improvement in mortality may have paused, with higher than expected mortality at both younger (under 55) and older (over 90) ages. Second, we assume that the rate of disability retirements will be lower, but not as large a decrease in rates as observed during the last five years. Thus we have set the disability rates to 85 percent of the experience rather than 100 percent.

Some of the changes in assumptions will increase the projected cost of the retirement system and some will decrease the cost. Overall, we expect that adoption of the recommended assumptions will slightly lower costs, due primarily to the slower expected pace of future salary increases.

VII. Considerations for Members Accruing Benefits Under Act 120

On November 23, 2010, Governor Rendell signed HB 2497 in to law as Act 120. This legislation preserves all the benefits now in place for all current members but mandates a number of benefit reductions for future members effective January 1, 2011 (except that the effective date is the expiration of collective bargaining agreements for State Police Troopers, Capitol Police and Park Rangers, and December 1, 2010 for legislators newly elected in November. State Police would retain the special retirement benefits they currently receive as a result of a collective bargaining arbitration award known as the DiLauro Award).

The following benefit provisions are included the bill:

Creates a new A-3 Class of Service for future non-judicial employees entering SERS membership on or after Jan. 1, 2011. As is the case with most current SERS members, the new A-3 members will contribute 6.25% of their pay toward their benefit; however, they will accrue benefits at only 2% of their Final Average Salary for each year of Credited Service (as opposed to the 2.5% accrual rate for most current members).

Creates an optional new A-4 Class of Service for future non-judicial employees entering SERS membership on or after Jan. 1, 2011. New members who elect this Class of Service will contribute 9.3% of their pay toward their benefit in order to accrue benefits at the rate most members currently do, 2.5% of their Final Average Salary for each year of Credited Service. This higher benefit will be entirely funded through the higher employee contribution rate. There will be no additional cost to the employers.

Increases the Vesting period for A-3 and A-4 members to 10 years, as opposed to five years under current law.

Eliminates “Option 4” lump sum withdrawals of Accumulated Deductions for A-3 and A-4 members otherwise eligible to receive monthly benefits.

Increases the Normal Retirement Age for Class A-3 and A-4 members. Normal retirement age for most members in the new classes will increase from age 60 to age 65 with a minimum of three years of Credited Service. For those members in the new classes in positions that currently have an age 50 Normal Retirement Age, an increase to age 55 with a minimum of three years of Credited Service including law enforcement officers and legislators. The special retirement terms provided to State Police Troopers under their arbitration award will continue in effect.

Replaces the current 35-years-of-service superannuation provision with a Rule of 92 with 35 Minimum Years of Service provision. The “Rule of 92” portion of this new dual superannuation eligibility rule will be met when a member’s age (last birthday) plus his/her completed years of credited service total at least 92. The effect of this provision is to require that State employees entering the workforce at a very young age would have to work a few additional years before superannuating. (Upon meeting the superannuation thresholds, a member becomes eligible to retire before reaching normal retirement age without incurring an early retirement reduction.)

Requires members who wish to purchase creditable nonstate service, other than intervening military or magisterial service, to pay the full actuarial cost of the increased benefit attributable to the purchase.

Implements a “shared risk” provision that introduces the possibility of higher or lower member contribution rates for future members. Higher or lower member contribution rates could be triggered when annual investment returns over a multi-year period are higher or lower than the rate assumed for SERS’ valuations. Member contributions could never be lower than the base rates set in the bill of 6.25% for A-3 Class of Service or 9.3% for A-4 Class of Service.

Table A-19 sets out the recommended early retirement rates for Class A-3 and Class A-4 employees.

Table A-20 sets out the recommended superannuation retirement rates for Class A-3 and Class A-4 employees.

For all other rates (mortality, disability, withdrawal), we recommend using the same rates as for General employees.

VIII. 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, 2006 to December 31, 2010

The recommended rates shown in this report are reasonable actuarial assumptions. However, a different set of rates could also be considered reasonable actuarial assumptions. The reason for this is that actuarial standards of practice describe a "best-estimate range" for each assumption, rather than a single best-estimate value. Thus, reasonable rates differing from those presented in this report could have been developed by selecting different points within the best-estimate ranges for various assumptions.

The actuaries certifying to this investigation are members of the American Academy of Actuaries and 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,
Hay Group
January 12, 2011



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IX. 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 8 percent will yield \$21,589.

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	Nominal	Real
Recommended	2.75%	8.00%	5.1%	3.05%	0.3%
Current 2008 & 2009	3.00%	8.00%	4.9%	3.30%	0.3%
Prior 1995 – 2007	3.00%	8.50%	5.3%	3.30%	0.3%

Table A – 1	Career Salary Increase Rates
Table A – 2	Mortality Rates for All Active Employees
Table A – 3	Disability Retirement Rates for All Active Employees
Table A – 4	Superannuation Retirement Rates for General Employees
Table A – 5	Early Retirement Rates for General Employees with 15 or More Years of Service
Table A – 6	Early Retirement Rates for General Employees with 4 – 14 Years of Service
Table A – 7	Recommended Withdrawal Rates for General Employees (Current Rates Not Shown)
Table A – 8	Mortality Rates for Non-Disabled Annuitants and Survivors
Table A – 9	Mortality Rates for Disabled Annuitants
Table A – 10	Superannuation Retirement Rates for State Police
Table A – 11	Superannuation Retirement Rates for Hazardous Duty Employees
Table A – 12	Early Retirement Rates for State Police and Hazardous Duty Employees
Table A – 13	Withdrawal Rates for State Police and Hazardous Duty Employees
Table A – 14	Superannuation Retirement Rates for Legislators
Table A – 15	Early Retirement Rates for Legislators
Table A – 16	Withdrawal Rates for Legislators
Table A – 17	Superannuation Rates for Judicial Officers
Table A – 18	Early Retirement Rates for Judicial Officers
Table A – 19	Withdrawal Rates for Judicial Officers
Table A – 20	Early Retirement Rates for Class A-3 and A-4 General Employees
Table A – 21	Superannuation Retirement Rates for Class A-3 and A-4 General Employees

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	9.08%	20.20%	11.05%	16.90%	8.00%
2	7.24%	11.60%	9.05%	8.30%	6.00%
3	6.40%	9.20%	7.55%	5.90%	4.50%
4	6.63%	7.90%	7.05%	4.60%	4.00%
5	6.47%	7.50%	6.80%	4.20%	3.75%
6	6.43%	7.10%	6.55%	3.80%	3.50%
7	6.21%	6.80%	6.30%	3.50%	3.25%
8	5.69%	6.50%	6.25%	3.20%	3.20%
9	5.78%	6.50%	6.20%	3.20%	3.15%
10	5.50%	6.40%	6.15%	3.10%	3.10%
11	5.44%	6.30%	6.05%	3.00%	3.00%
12	5.19%	6.20%	5.95%	2.90%	2.90%
13	5.02%	6.10%	5.85%	2.80%	2.80%
14	5.34%	6.10%	5.75%	2.80%	2.70%
15	4.33%	6.00%	5.65%	2.70%	2.60%
16	5.20%	5.90%	5.55%	2.60%	2.50%
17	4.96%	5.80%	5.45%	2.50%	2.40%
18	4.76%	5.70%	5.35%	2.40%	2.30%
19	4.58%	5.60%	5.25%	2.30%	2.20%
20	4.75%	5.50%	5.15%	2.20%	2.10%
21	4.60%	5.40%	5.05%	2.10%	2.00%
22	4.68%	5.30%	4.95%	2.00%	1.90%
23	4.40%	5.20%	4.85%	1.90%	1.80%
24	4.50%	5.10%	4.75%	1.80%	1.70%
25	4.53%	5.00%	4.65%	1.70%	1.60%

**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)
26	4.33%	4.90%	4.55%	1.60%	1.50%
27	4.06%	4.90%	4.45%	1.60%	1.40%
28	4.28%	4.90%	4.35%	1.60%	1.30%
29	4.16%	4.90%	4.30%	1.60%	1.25%
30	4.17%	4.90%	4.30%	1.60%	1.25%
31	4.07%	4.90%	4.30%	1.60%	1.25%
32	4.12%	4.90%	4.30%	1.60%	1.25%
33	4.13%	4.90%	4.30%	1.60%	1.25%
34	4.21%	4.90%	4.30%	1.60%	1.25%
35	4.29%	4.90%	4.30%	1.60%	1.25%
36	4.01%	4.90%	4.30%	1.60%	1.25%
37	4.04%	4.90%	4.30%	1.60%	1.25%
38	4.09%	4.90%	4.30%	1.60%	1.25%
39	4.16%	4.90%	4.30%	1.60%	1.25%
40	3.90%	4.90%	4.30%	1.60%	1.25%

Table A-2				
Mortality Rates for All Active Employees				
Age	Males Current	Males Recommended	Females Current	Females Recommended
17	0.0002	0.0004	0.0001	0.0001
18	0.0002	0.0004	0.0001	0.0001
19	0.0002	0.0004	0.0002	0.0002
20	0.0002	0.0004	0.0002	0.0002
21	0.0002	0.0004	0.0002	0.0002
22	0.0002	0.0004	0.0002	0.0002
23	0.0002	0.0004	0.0002	0.0002
24	0.0002	0.0004	0.0002	0.0002
25	0.0002	0.0004	0.0002	0.0002
26	0.0002	0.0004	0.0002	0.0002
27	0.0002	0.0004	0.0002	0.0002
28	0.0003	0.0004	0.0002	0.0002
29	0.0003	0.0004	0.0002	0.0002
30	0.0003	0.0005	0.0002	0.0002
31	0.0003	0.0005	0.0002	0.0002
32	0.0004	0.0005	0.0002	0.0002
33	0.0004	0.0005	0.0003	0.0003
34	0.0004	0.0005	0.0003	0.0003
35	0.0005	0.0006	0.0003	0.0003
36	0.0005	0.0006	0.0003	0.0003
37	0.0005	0.0007	0.0004	0.0004
38	0.0005	0.0007	0.0004	0.0004
39	0.0006	0.0008	0.0004	0.0004
40	0.0006	0.0008	0.0005	0.0004
41	0.0007	0.0009	0.0005	0.0004
42	0.0008	0.0009	0.0006	0.0005
43	0.0009	0.0010	0.0006	0.0005
44	0.0010	0.0010	0.0007	0.0006
45	0.0012	0.0012	0.0007	0.0006
46	0.0013	0.0014	0.0007	0.0007
47	0.0015	0.0016	0.0009	0.0007
48	0.0016	0.0018	0.0010	0.0008
49	0.0019	0.0020	0.0011	0.0008
50	0.0021	0.0022	0.0012	0.0009
51	0.0023	0.0023	0.0012	0.0009
52	0.0025	0.0024	0.0014	0.0010
53	0.0027	0.0025	0.0015	0.0010
54	0.0030	0.0026	0.0016	0.0012
55	0.0033	0.0027	0.0018	0.0014

Table A-2				
Mortality Rates for All Active Employees				
Age	Males Current	Males Recommended	Females Current	Females Recommended
56	0.0035	0.0028	0.0020	0.0016
57	0.0038	0.0029	0.0021	0.0018
58	0.0041	0.0030	0.0024	0.0020
59	0.0044	0.0031	0.0026	0.0022
60	0.0048	0.0032	0.0030	0.0024
61	0.0053	0.0034	0.0033	0.0026
62	0.0059	0.0036	0.0036	0.0028
63	0.0065	0.0038	0.0040	0.0030
64	0.0073	0.0040	0.0045	0.0035
65	0.0083	0.0045	0.0049	0.0040
66	0.0093	0.0050	0.0054	0.0045
67	0.0105	0.0055	0.0061	0.0050
68	0.0118	0.0062	0.0068	0.0060
69	0.0132	0.0070	0.0077	0.0070
70	0.0146	0.0080	0.0087	0.0080
71	0.0160	0.0090	0.0099	0.0090
72	0.0177	0.0100	0.0113	0.0100
73	0.0194	0.0120	0.0129	0.0110
74	0.0214	0.0145	0.0148	0.0120
75	0.0236	0.0170	0.0168	0.0130
76	0.0262	0.0200	0.0190	0.0140
77	0.0290	0.0240	0.0215	0.0150
78	0.0322	0.0260	0.0242	0.0160
79	0.0355	0.0280	0.0270	0.0170
80	0.0355	0.0300	0.0270	0.0180
81	0.0355	0.0300	0.0270	0.0190
82+	0.0355	0.0300	0.0270	0.0200

Table A-3				
Disability Retirement Rates for All Active Employees				
Age	Males		Females	
	Current	Recommended	Current	Recommended
23	0.00030	0.00023	0.00070	0.00039
24	0.00030	0.00023	0.00070	0.00039
25	0.00030	0.00023	0.00070	0.00039
26	0.00050	0.00038	0.00080	0.00044
27	0.00050	0.00038	0.00100	0.00055
28	0.00100	0.00050	0.00100	0.00055
29	0.00090	0.00068	0.00140	0.00077
30	0.00090	0.00068	0.00170	0.00094
31	0.00100	0.00075	0.00200	0.00110
32	0.00110	0.00083	0.00220	0.00121
33	0.00120	0.00090	0.00260	0.00143
34	0.00150	0.00113	0.00280	0.00154
35	0.00160	0.00120	0.00290	0.00160
36	0.00170	0.00128	0.00300	0.00165
37	0.00170	0.00128	0.00310	0.00171
38	0.00180	0.00135	0.00340	0.00187
39	0.00190	0.00143	0.00360	0.00198
40	0.00250	0.00188	0.00380	0.00209
41	0.00280	0.00210	0.00420	0.00231
42	0.00320	0.00240	0.00460	0.00253
43	0.00350	0.00263	0.00510	0.00281
44	0.00390	0.00293	0.00530	0.00292
45	0.00440	0.00330	0.00600	0.00330
46	0.00470	0.00353	0.00670	0.00369
47	0.00510	0.00383	0.00720	0.00396
48	0.00520	0.00390	0.00800	0.00440
49	0.00580	0.00435	0.00860	0.00473
50	0.00610	0.00458	0.00910	0.00501
51	0.00650	0.00488	0.00950	0.00523
52	0.00680	0.00510	0.01000	0.00550
53	0.00740	0.00555	0.01060	0.00583
54	0.00770	0.00578	0.01100	0.00605
55	0.00800	0.00600	0.01150	0.00633

Table A-3				
Disability Retirement Rates for All Active Employees				
56	0.00820	0.00615	0.01200	0.00660
57	0.00860	0.00645	0.01250	0.00688
58	0.00880	0.00660	0.01300	0.00715
59	0.00920	0.00690	0.01350	0.00743
60	0.00000	0.00000	0.00000	0.00000

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

Age	Current Superannuation Retirement Rates Males and Females	Recommended Superannuation Retirement Rates Male	Recommended Superannuation Retirement Rates Female
53	30%	25%	23%
54	30%	26%	23%
55	30%	27%	23%
56	30%	28%	23%
57	30%	30%	23%
58	30%	30%	23%
59	30%	30%	23%
60	25%	25%	25%
61	25%	20%	20%
62	33%	25%	25%
63	22%	20%	20%
64	22%	20%	20%
65	33%	25%	25%
66 to 79	22%	20%	20%
80	100%	100%	100%

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

Age	Males Current	Males Recommended	Females Current	Females Recommended
31	0.03860	0.01500	0.05060	0.01500
32	0.03860	0.01500	0.05060	0.01500
33	0.02630	0.01500	0.02710	0.01500
34	0.02630	0.01500	0.02710	0.01500
35	0.02630	0.01500	0.02710	0.01500
36	0.02630	0.01500	0.02710	0.01500
37	0.02630	0.01500	0.02710	0.01500
38	0.02630	0.01500	0.02710	0.01500
39	0.02630	0.01500	0.02710	0.01500
40	0.02630	0.01500	0.02710	0.01500
41	0.02630	0.01500	0.02710	0.01500
42	0.02630	0.01500	0.02710	0.01500
43	0.02630	0.01500	0.02710	0.01500
44	0.02630	0.01500	0.02710	0.01500
45	0.02630	0.01500	0.02710	0.01500
46	0.02630	0.01500	0.02710	0.01500
47	0.02630	0.02000	0.02710	0.02000
48	0.02630	0.02000	0.02710	0.02000
49	0.02630	0.02000	0.02710	0.02000
50	0.02630	0.02000	0.02710	0.02000
51	0.02630	0.03000	0.02710	0.03000
52	0.02630	0.04000	0.02710	0.04000
53	0.02630	0.04500	0.02710	0.04500
54	0.02630	0.05000	0.02710	0.05000
55	0.03860	0.05500	0.03890	0.05500
56	0.03860	0.06000	0.03890	0.06000
57	0.03860	0.08000	0.03890	0.08000
58	0.03860	0.10000	0.03890	0.10000
59	0.13730	0.15000	0.15660	0.15000
60	0.00000	0.00000	0.00000	0.00000

**Table A-6
Early Retirement Rates for Active General Employees with 4 -14 Years
of Service**

Age	Males Current	Males Recommended	Females Current	Females Recommended
21	0.02960	0.01000	0.04050	0.01000
22	0.02960	0.01000	0.04050	0.01000
23	0.02960	0.01000	0.03980	0.01000
24	0.02960	0.01000	0.03990	0.01000
25	0.02960	0.01000	0.03880	0.01000
26	0.02960	0.01000	0.03710	0.01000
27	0.02960	0.01000	0.03540	0.01000
28	0.02550	0.01000	0.03450	0.01000
29	0.02510	0.01500	0.03520	0.01500
30	0.02490	0.01500	0.03530	0.01500
31	0.02460	0.01500	0.03520	0.01500
32	0.02460	0.01500	0.03500	0.01500
33	0.01950	0.01500	0.02810	0.01500
34	0.01910	0.01500	0.02820	0.01500
35	0.01890	0.01500	0.02840	0.01500
36	0.01890	0.01500	0.02830	0.01500
37	0.01880	0.01500	0.02810	0.01500
38	0.01870	0.01500	0.02290	0.01500
39	0.01880	0.01000	0.02270	0.01000
40	0.01690	0.01000	0.01720	0.01000
41	0.01690	0.01000	0.01660	0.01000
42	0.01680	0.01000	0.01640	0.01000
43	0.01690	0.01000	0.01680	0.01000
44	0.01690	0.01000	0.01640	0.01000
45	0.01120	0.01000	0.01640	0.01000
46	0.01110	0.01000	0.01470	0.01000
47	0.01100	0.01000	0.01480	0.01000
48	0.01080	0.01000	0.01310	0.01000
49	0.01090	0.01000	0.01300	0.01000
50	0.00950	0.01000	0.01300	0.01000
51	0.00960	0.01000	0.01250	0.01000
52	0.00950	0.01000	0.01240	0.01000
53	0.00950	0.01000	0.01210	0.01000

**Table A-6
Early Retirement Rates for Active General Employees with 4 -14 Years
of Service**

Age	Males Current	Males Recommended	Females Current	Females Recommended
54	0.00970	0.01000	0.01200	0.01000
55	0.02330	0.01000	0.02330	0.01000
56	0.02330	0.01000	0.02330	0.01000
57	0.02330	0.01000	0.02330	0.01000
58	0.02330	0.01000	0.02330	0.01000
59	0.08250	0.03000	0.09370	0.03000
60	0.00000	0.00000	0.00000	0.00000

Table A-7 Recommended Withdrawal Rates for Males

Service	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Age															
17	0.20738	0.17775													
18	0.20738	0.17775	0.12500												
19	0.20738	0.17775	0.12500	0.06777											
20	0.20738	0.17775	0.12500	0.06777	0.05273										
21	0.20738	0.17775	0.11500	0.06777	0.05273	0.00888									
22	0.20738	0.17775	0.11500	0.06777	0.05273	0.00888	0.00788								
23	0.20300	0.17400	0.11213	0.06219	0.04815	0.00788	0.00788	0.00788							
24	0.17400	0.17400	0.11213	0.06219	0.04815	0.00788	0.00788	0.00788	0.00788						
25	0.16240	0.14500	0.11213	0.06219	0.04815	0.00788	0.00788	0.00788	0.00788	0.00788					
26	0.15080	0.13920	0.11213	0.06219	0.04815	0.00788	0.00788	0.00788	0.00788	0.00788	0.00988				
27	0.14500	0.13920	0.11213	0.06219	0.04815	0.00788	0.00788	0.00788	0.00788	0.00788	0.00988	0.00880			
28	0.14500	0.13920	0.11213	0.06219	0.04815	0.00788	0.00632	0.00592	0.00592	0.00592	0.00772	0.00680	0.00672		
29	0.14500	0.13920	0.11213	0.06219	0.04815	0.00788	0.00632	0.00592	0.00592	0.00592	0.00772	0.00680	0.00672	0.00672	
30	0.13888	0.13332	0.09713	0.06219	0.04815	0.00788	0.00632	0.00592	0.00592	0.00592	0.00772	0.00680	0.00672	0.00672	0.00616
31	0.13888	0.13332	0.09713	0.06219	0.04815	0.00788	0.00632	0.00592	0.00592	0.00592	0.00772	0.00680	0.00672	0.00672	0.00616
32	0.13888	0.13332	0.09713	0.06219	0.04815	0.00788	0.00632	0.00592	0.00592	0.00592	0.00772	0.00680	0.00672	0.00672	0.00616
33	0.13888	0.13332	0.09713	0.05886	0.04538	0.00732	0.00572	0.00472	0.00472	0.00396	0.00572	0.00484	0.00472	0.00472	0.00420
34	0.13888	0.13332	0.09713	0.05886	0.04538	0.00732	0.00572	0.00472	0.00472	0.00396	0.00572	0.00484	0.00472	0.00472	0.00420
35	0.13575	0.13032	0.09461	0.05886	0.04538	0.00732	0.00572	0.00472	0.00472	0.00396	0.00572	0.00484	0.00472	0.00472	0.00420
36	0.13466	0.12489	0.09370	0.05886	0.04538	0.00732	0.00572	0.00472	0.00472	0.00396	0.00572	0.00484	0.00472	0.00472	0.00420
37	0.13358	0.12380	0.09280	0.05886	0.04538	0.00732	0.00572	0.00472	0.00472	0.00396	0.00572	0.00484	0.00472	0.00472	0.00420
38	0.13249	0.12272	0.09190	0.05886	0.04538	0.00732	0.00572	0.00472	0.00472	0.00396	0.00572	0.00484	0.00472	0.00472	0.00420
39	0.13141	0.12163	0.09100	0.05886	0.04538	0.00732	0.00572	0.00472	0.00472	0.00396	0.00572	0.00484	0.00472	0.00472	0.00420
40	0.13032	0.12055	0.09010	0.05559	0.03518	0.00512	0.00396	0.00396	0.00396	0.00396	0.00532	0.00484	0.00472	0.00472	0.00420
41	0.12923	0.11946	0.09010	0.05559	0.03518	0.00512	0.00396	0.00396	0.00396	0.00396	0.00532	0.00484	0.00472	0.00472	0.00420

Table A-7 Recommended Withdrawal Rates for Males

Service	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Age															
42	0.12815	0.11837	0.09010	0.05559	0.03518	0.00512	0.00396	0.00396	0.00396	0.00396	0.00532	0.00484	0.00472	0.00472	0.00420
43	0.12706	0.11729	0.09010	0.05143	0.03518	0.00512	0.00396	0.00396	0.00396	0.00396	0.00532	0.00484	0.00472	0.00472	0.00420
44	0.12598	0.11620	0.09010	0.05143	0.03518	0.00512	0.00396	0.00396	0.00396	0.00396	0.00532	0.00484	0.00472	0.00472	0.00420
45	0.12064	0.11119	0.08640	0.05143	0.03518	0.00512	0.00356	0.00256	0.00256	0.00196	0.00336	0.00288	0.00276	0.00276	0.00224
46	0.11959	0.11015	0.08640	0.05143	0.03518	0.00512	0.00356	0.00256	0.00256	0.00196	0.00336	0.00288	0.00276	0.00276	0.00224
47	0.11854	0.10910	0.08640	0.05143	0.03518	0.00512	0.00356	0.00256	0.00256	0.00196	0.00316	0.00288	0.00276	0.00276	0.00224
48	0.11749	0.10805	0.08640	0.05143	0.03518	0.00512	0.00356	0.00256	0.00256	0.00196	0.00316	0.00288	0.00276	0.00276	0.00224
49	0.11644	0.10700	0.08640	0.05143	0.03518	0.00512	0.00356	0.00256	0.00256	0.00196	0.00316	0.00288	0.00276	0.00276	0.00224
50	0.11264	0.10445	0.07400	0.05143	0.03240	0.00456	0.00296	0.00196	0.00196	0.00196	0.00256	0.00256	0.00256	0.00256	0.00224
51	0.11264	0.10445	0.07400	0.05143	0.03240	0.00456	0.00296	0.00196	0.00196	0.00196	0.00256	0.00256	0.00256	0.00256	0.00224
52	0.11264	0.10445	0.07400	0.05143	0.03240	0.00456	0.00296	0.00196	0.00196	0.00196	0.00256	0.00256	0.00256	0.00256	0.00224
53	0.11264	0.10445	0.07400	0.05143	0.03240	0.00456	0.00296	0.00196	0.00196	0.00196	0.00256	0.00256	0.00256	0.00256	0.00224
54	0.11264	0.10445	0.07400	0.05143	0.03240	0.00456	0.00296	0.00196	0.00196	0.00196	0.00256	0.00256	0.00256	0.00256	0.00224
55	0.11264	0.10445	0.07400	0.05143	0.03240	0.00592	0.00592	0.00592	0.00592	0.00592	0.00652	0.00652	0.00652	0.00652	0.00616
56	0.11264	0.10445	0.07400	0.05143	0.03240	0.00592	0.00592	0.00592	0.00592	0.00592	0.00652	0.00652	0.00652	0.00652	0.00616
57	0.11264	0.10445	0.07400	0.05143	0.03240	0.00592	0.00592	0.00592	0.00592	0.00592	0.00652	0.00652	0.00652	0.00652	0.00616
58	0.11264	0.10445	0.07400	0.05143	0.03240	0.00592	0.00592	0.00592	0.00592	0.00592	0.00652	0.00652	0.00652	0.00652	0.00616
59	0.11264	0.10445	0.07400	0.05143	0.03240	0.00592	0.00592	0.00592	0.00592	0.00592	0.00652	0.00652	0.00652	0.00652	0.00616

Table A-7 Recommended Withdrawal Rates for Females

Service	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Age															
17	0.22380	0.16065	-	-	-	-	-	-	-	-	-	-	-	-	-
18	0.22380	0.16065	0.10480	-	-	-	-	-	-	-	-	-	-	-	-
19	0.22380	0.16065	0.10480	0.09180	-	-	-	-	-	-	-	-	-	-	-
20	0.22380	0.16065	0.10480	0.09180	0.08240	-	-	-	-	-	-	-	-	-	-
21	0.22380	0.16065	0.10480	0.09180	0.08240	0.02920	-	-	-	-	-	-	-	-	-
22	0.22380	0.10710	0.10480	0.09180	0.08240	0.02920	0.02331	-	-	-	-	-	-	-	-
23	0.20480	0.10240	0.09540	0.09180	0.08240	0.02680	0.02331	0.02115	-	-	-	-	-	-	-
24	0.20480	0.10240	0.09300	0.09180	0.08240	0.02680	0.02331	0.02115	0.01908	-	-	-	-	-	-
25	0.20480	0.10240	0.09300	0.09180	0.08240	0.02680	0.02331	0.02115	0.01908	0.01908	-	-	-	-	-
26	0.17920	0.10240	0.09300	0.09180	0.08240	0.02680	0.02331	0.02115	0.01908	0.01908	0.02547	-	-	-	-
27	0.17920	0.10240	0.09300	0.09180	0.08240	0.02680	0.02331	0.01908	0.01908	0.01908	0.02331	0.02331	-	-	-
28	0.17920	0.09216	0.08370	0.08262	0.07416	0.02412	0.02115	0.01908	0.01908	0.01692	0.02331	0.02331	0.02331	-	-
29	0.17920	0.09216	0.08370	0.08262	0.07416	0.02412	0.02115	0.01908	0.01908	0.01692	0.02331	0.02331	0.02331	0.02331	-
30	0.17920	0.09216	0.08370	0.08262	0.07416	0.02412	0.02115	0.01908	0.01908	0.01692	0.02331	0.02331	0.02331	0.02331	0.01827
31	0.15360	0.09216	0.08370	0.08262	0.07416	0.02412	0.02115	0.01908	0.01908	0.01692	0.02331	0.02331	0.02331	0.02331	0.01827
32	0.15360	0.09216	0.08370	0.08262	0.07416	0.02412	0.02115	0.01908	0.01908	0.01692	0.02331	0.02331	0.02331	0.02331	0.01827
33	0.15360	0.09216	0.08370	0.07209	0.06354	0.01989	0.01863	0.01485	0.01269	0.01269	0.01908	0.01908	0.01908	0.01908	0.01395
34	0.15360	0.09216	0.07905	0.06809	0.06001	0.01879	0.01760	0.01403	0.01199	0.01199	0.01802	0.01802	0.01802	0.01802	0.01318
35	0.12800	0.09216	0.07905	0.06809	0.06001	0.01879	0.01760	0.01403	0.01199	0.01199	0.01802	0.01802	0.01802	0.01802	0.01318
36	0.12288	0.09216	0.07905	0.06809	0.06001	0.01879	0.01760	0.01403	0.01199	0.01199	0.01802	0.01802	0.01802	0.01802	0.01318
37	0.11776	0.09216	0.07905	0.06809	0.06001	0.01879	0.01760	0.01403	0.01199	0.01199	0.01802	0.01802	0.01802	0.01802	0.01318
38	0.11264	0.09216	0.07905	0.06809	0.05007	0.01879	0.01598	0.01403	0.00799	0.00799	0.01403	0.01403	0.01403	0.01403	0.00918
39	0.10752	0.09216	0.07905	0.06809	0.05007	0.01879	0.01598	0.01403	0.00799	0.00799	0.01403	0.01403	0.01403	0.01403	0.00918

Table A-7 Recommended Withdrawal Rates for Females

Service	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Age															
40	0.10010	0.09009	0.07905	0.06809	0.05007	0.01879	0.01403	0.01403	0.00799	0.00723	0.00705	0.00705	0.00705	0.00705	0.00458
41	0.10010	0.09009	0.07905	0.06809	0.05007	0.01879	0.01403	0.01199	0.00799	0.00723	0.00705	0.00705	0.00705	0.00705	0.00458
42	0.10010	0.09009	0.07905	0.06809	0.05007	0.01879	0.01403	0.01199	0.00799	0.00723	0.00705	0.00705	0.00705	0.00705	0.00458
43	0.09770	0.08793	0.07506	0.06503	0.05007	0.01989	0.01403	0.01199	0.00799	0.00723	0.00705	0.00705	0.00705	0.00705	0.00458
44	0.09770	0.08793	0.07506	0.06503	0.04505	0.01782	0.01403	0.01199	0.00799	0.00723	0.00705	0.00705	0.00705	0.00705	0.00458
45	0.09770	0.08793	0.07506	0.06503	0.04505	0.01782	0.01403	0.01199	0.00799	0.00723	0.00705	0.00705	0.00705	0.00705	0.00458
46	0.09770	0.08793	0.07506	0.06503	0.04505	0.01782	0.01080	0.01199	0.00799	0.00723	0.00705	0.00533	0.00533	0.00533	0.00458
47	0.09770	0.08793	0.07506	0.06503	0.04505	0.01782	0.01080	0.01199	0.00799	0.00723	0.00705	0.00533	0.00533	0.00533	0.00458
48	0.09770	0.08793	0.07506	0.06503	0.04505	0.01782	0.01080	0.00799	0.00604	0.00400	0.00705	0.00533	0.00533	0.00533	0.00458
49	0.09770	0.08793	0.07506	0.06503	0.04505	0.01782	0.01080	0.00799	0.00604	0.00400	0.00705	0.00533	0.00533	0.00533	0.00458
50	0.09770	0.08793	0.07506	0.06503	0.04505	0.01782	0.01080	0.00799	0.00604	0.00400	0.00705	0.00533	0.00533	0.00533	0.00458
51	0.09770	0.08793	0.07506	0.06001	0.03706	0.01485	0.01080	0.00799	0.00604	0.00400	0.00705	0.00533	0.00533	0.00533	0.00458
52	0.09770	0.08793	0.07506	0.06001	0.03706	0.01485	0.00961	0.00799	0.00604	0.00400	0.00705	0.00533	0.00533	0.00533	0.00458
53	0.09770	0.08793	0.07506	0.06001	0.03706	0.01485	0.00961	0.00799	0.00604	0.00400	0.00533	0.00533	0.00533	0.00533	0.00458
54	0.09770	0.08793	0.07506	0.06001	0.03706	0.01485	0.00961	0.00799	0.00604	0.00400	0.00533	0.00533	0.00533	0.00533	0.00458
55	0.09770	0.08793	0.07506	0.06001	0.03706	0.01485	0.01199	0.01199	0.01199	0.01199	0.01238	0.01238	0.01238	0.01238	0.01163
56	0.09770	0.08793	0.07506	0.06001	0.03706	0.01485	0.01199	0.01199	0.01199	0.01199	0.01238	0.01238	0.01238	0.01238	0.01163
57	0.09770	0.08793	0.07506	0.06001	0.03706	0.01485	0.01199	0.01199	0.01199	0.01199	0.01238	0.01238	0.01238	0.01238	0.01163
58	0.09770	0.08793	0.07506	0.06001	0.03706	0.01485	0.01199	0.01199	0.01199	0.01199	0.01238	0.01238	0.01238	0.01238	0.01163
59	0.09770	0.08793	0.07506	0.06001	0.03706	0.01485	0.01199	0.01199	0.01199	0.01199	0.01238	0.01238	0.01238	0.01238	0.01163

Table A-8
Mortality Rates for Non Disabled Annuitants and Survivors

Age	Males Current	Males Recommended	Females Current	Females Recommended
30	0.00107	0.00107	0.00034	0.00034
31	0.00120	0.00120	0.00040	0.00040
32	0.00135	0.00135	0.00046	0.00046
33	0.00152	0.00152	0.00051	0.00051
34	0.00169	0.00169	0.00056	0.00056
35	0.00186	0.00186	0.00061	0.00061
36	0.00202	0.00202	0.00065	0.00065
37	0.00217	0.00217	0.00070	0.00070
38	0.00230	0.00230	0.00075	0.00075
39	0.00241	0.00241	0.00080	0.00080
40	0.00253	0.00253	0.00088	0.00088
41	0.00266	0.00266	0.00096	0.00096
42	0.00280	0.00280	0.00106	0.00106
43	0.00297	0.00297	0.00116	0.00116
44	0.00317	0.00317	0.00128	0.00128
45	0.00340	0.00340	0.00138	0.00138
46	0.00361	0.00361	0.00149	0.00149
47	0.00384	0.00384	0.00160	0.00160
48	0.00409	0.00409	0.00173	0.00173
49	0.00435	0.00435	0.00188	0.00188
50	0.00462	0.00462	0.00204	0.00204
51	0.00474	0.00474	0.00216	0.00216
52	0.00480	0.00480	0.00237	0.00237
53	0.00487	0.00487	0.00263	0.00263
54	0.00493	0.00493	0.00294	0.00294
55	0.00507	0.00507	0.00331	0.00328
56	0.00530	0.00530	0.00374	0.00363
57	0.00562	0.00562	0.00421	0.00400
58	0.00606	0.00606	0.00473	0.00440
59	0.00658	0.00658	0.00531	0.00484
60	0.00720	0.00720	0.00596	0.00530
61	0.00798	0.00798	0.00665	0.00585

Table A-8
Mortality Rates for Non Disabled Annuitants and Survivors

Age	Males Current	Males Recommended	Females Current	Females Recommended
62	0.00879	0.00879	0.00739	0.00643
63	0.00978	0.00978	0.00818	0.00703
64	0.01083	0.01072	0.00903	0.00767
65	0.01199	0.01175	0.00996	0.00846
66	0.01339	0.01299	0.01096	0.00932
67	0.01482	0.01423	0.01205	0.01024
68	0.01626	0.01545	0.01323	0.01125
69	0.01796	0.01706	0.01456	0.01252
70	0.01968	0.01869	0.01608	0.01399
71	0.02177	0.02068	0.01771	0.01558
72	0.02417	0.02297	0.01969	0.01753
73	0.02693	0.02558	0.02172	0.01954
74	0.03004	0.02854	0.02407	0.02190
75	0.03380	0.03211	0.02636	0.02425
76	0.03767	0.03579	0.02904	0.02701
77	0.04224	0.04013	0.03224	0.03031
78	0.04732	0.04496	0.03554	0.03376
79	0.05302	0.05037	0.03924	0.03728
80	0.05940	0.05643	0.04337	0.04120
81	0.06702	0.06366	0.04801	0.04560
82	0.07548	0.07170	0.05322	0.05056
83	0.08413	0.07993	0.05909	0.05614
84	0.09433	0.08961	0.06572	0.06243
85	0.10470	0.09947	0.07381	0.07012
86	0.11609	0.11028	0.08298	0.07966
87	0.12965	0.12317	0.09330	0.09050
88	0.14467	0.13744	0.10392	0.10184
89	0.15988	0.15189	0.11632	0.11516
90	0.17762	0.16874	0.12856	0.12856
91	0.19347	0.18573	0.14117	0.14117
92	0.21146	0.20512	0.15388	0.15388
93	0.22811	0.22355	0.16773	0.16773
94	0.24474	0.24229	0.17990	0.17990

Table A-8
Mortality Rates for Non Disabled Annuitants and Survivors

Age	Males Current	Males Recommended	Females Current	Females Recommended
95	0.26324	0.26324	0.19142	0.19142
96	0.27939	0.27939	0.20212	0.20212
97	0.29509	0.29509	0.21352	0.21352
98	0.31278	0.31278	0.22216	0.22216
99	0.32758	0.32758	0.22954	0.22954
100	0.34181	0.34181	0.23557	0.23557
101	0.35863	0.35863	0.24483	0.24483
102	0.37169	0.37169	0.25450	0.25450
103	0.38304	0.38304	0.26604	0.26604
104	0.39200	0.39200	0.27906	0.27906
105	0.39789	0.39789	0.29312	0.29312
106	0.40000	0.40000	0.30781	0.30781
107	0.40000	0.40000	0.32273	0.32273
108	0.40000	0.40000	0.33744	0.33744
109	0.40000	0.40000	0.35154	0.35154
110	0.40000	0.40000	0.36462	0.36462
111	0.40000	0.40000	0.37625	0.37625
112	0.40000	0.40000	0.38602	0.38602
113	0.40000	0.40000	0.39351	0.39351
114	0.40000	0.40000	0.39831	0.39831
115	0.40000	0.40000	0.40000	0.40000
116	0.40000	0.40000	0.40000	0.40000
117	0.40000	0.40000	0.40000	0.40000
118	0.40000	0.40000	0.40000	0.40000
119	0.40000	0.40000	0.40000	0.40000
120	1.00000	1.00000	1.00000	1.00000

Table A-9
Mortality Rates for Disabled Annuitants

Age	Males Current	Males Recommended	Females Current	Females Recommended
30	0.02168	0.02060	0.00687	0.00739
31	0.02168	0.02060	0.00699	0.00751
32	0.02168	0.02060	0.00699	0.00751
33	0.02168	0.02060	0.00693	0.00745
34	0.02168	0.02060	0.00687	0.00739
35	0.02168	0.02060	0.00682	0.00733
36	0.02168	0.02060	0.00676	0.00727
37	0.02168	0.02060	0.00671	0.00721
38	0.02151	0.02043	0.00666	0.00715
39	0.02134	0.02027	0.00660	0.00710
40	0.02117	0.02011	0.00660	0.00710
41	0.02100	0.01995	0.00660	0.00710
42	0.02083	0.01979	0.00660	0.00710
43	0.02066	0.01963	0.00660	0.00710
44	0.02049	0.01947	0.00660	0.00710
45	0.02033	0.01931	0.00655	0.00704
46	0.02130	0.02024	0.00714	0.00767
47	0.02226	0.02115	0.00775	0.00833
48	0.02321	0.02205	0.00845	0.00909
49	0.02414	0.02293	0.00920	0.00989
50	0.02506	0.02380	0.01006	0.01081
51	0.02596	0.02466	0.01097	0.01179
52	0.02685	0.02551	0.01202	0.01292
53	0.02796	0.02656	0.01313	0.01412
54	0.02906	0.02760	0.01430	0.01537
55	0.03040	0.02888	0.01551	0.01668
56	0.03176	0.03018	0.01677	0.01803
57	0.03315	0.03149	0.01792	0.01927
58	0.03457	0.03284	0.01894	0.02036
59	0.03575	0.03396	0.01995	0.02145

**Table A-9
Mortality Rates for Disabled Annuitants**

Age	Males Current	Males Recommended	Females Current	Females Recommended
60	0.03695	0.03511	0.02098	0.02255
61	0.03852	0.03660	0.02203	0.02369
62	0.03986	0.03787	0.02313	0.02487
63	0.04162	0.03953	0.02430	0.02612
64	0.04315	0.04100	0.02555	0.02747
65	0.04482	0.04258	0.02692	0.02894
66	0.04702	0.04467	0.02843	0.03056
67	0.04904	0.04659	0.03009	0.03235
68	0.05084	0.04830	0.03193	0.03432
69	0.05325	0.05059	0.03395	0.03649
70	0.05546	0.05268	0.03616	0.03887
71	0.05834	0.05543	0.03825	0.04112
72	0.06150	0.05843	0.04084	0.04390
73	0.06495	0.06170	0.04327	0.04651
74	0.06869	0.06525	0.04622	0.04969
75	0.07331	0.06965	0.04898	0.05265
76	0.07768	0.07379	0.05231	0.05623
77	0.08299	0.07884	0.05629	0.06051
78	0.08865	0.08422	0.06007	0.06458
79	0.09464	0.08990	0.06409	0.06889
80	0.10092	0.09588	0.06836	0.07349
81	0.10748	0.10211	0.07292	0.07839
82	0.11429	0.10858	0.07780	0.08364
83	0.12036	0.11434	0.08304	0.08927
84	0.12755	0.12117	0.08867	0.09532
85	0.13387	0.12717	0.09549	0.10265
86	0.14027	0.13325	0.10289	0.11061
87	0.14794	0.14054	0.11090	0.11922
88	0.15581	0.14802	0.11860	0.12750
89	0.16258	0.15445	0.12786	0.13745
90	0.17762	0.16874	0.13672	0.14698
91	0.19347	0.18379	0.14614	0.15710

**Table A-9
Mortality Rates for Disabled Annuitants**

Age	Males	Males	Females	Females
	Current	Recommended	Current	Recommended
92	0.21146	0.20089	0.15613	0.16784
93	0.22811	0.21671	0.16773	0.18030
94	0.24474	0.23250	0.17990	0.19339
95	0.26324	0.25008	0.19142	0.20578
96	0.27939	0.26542	0.20212	0.21727
97	0.29509	0.28033	0.21352	0.22954
98	0.31278	0.29714	0.22216	0.23882
99	0.32758	0.31120	0.22954	0.24676
100	0.34181	0.32472	0.23557	0.25324
101	0.35863	0.34070	0.24483	0.26320
102	0.37169	0.35310	0.25450	0.27359
103	0.38304	0.36389	0.26604	0.28600
104	0.39200	0.37240	0.27906	0.29998
105	0.39789	0.37799	0.29312	0.31510
106	0.40000	0.40000	0.30781	0.33090
107	0.40000	0.40000	0.32273	0.34693
108	0.40000	0.40000	0.33744	0.36275
109	0.40000	0.40000	0.35154	0.37791
110	0.40000	0.40000	0.36462	0.39196
111	0.40000	0.40000	0.37625	0.37625
112	0.40000	0.40000	0.38602	0.38602
113	0.40000	0.40000	0.39351	0.39351
114	0.40000	0.40000	0.39831	0.39831
115	0.40000	0.40000	0.40000	0.40000
116	0.40000	0.40000	0.40000	0.40000
117	0.40000	0.40000	0.40000	0.40000
118	0.40000	0.40000	0.40000	0.40000
119	0.40000	0.40000	0.40000	0.40000
120	1.00000	1.00000	1.00000	1.00000

Table A-10 Superannuation Retirement Rates for State Police Males & Females		
Service	Current	Males & Females Recommended
20	0.04700	0.05000
21	0.01180	0.05000
22	0.01180	0.05000
23	0.01180	0.05000
24	0.01180	0.15000
25	0.35270	0.50000
26	0.19990	0.20000
27	0.18810	0.20000
28	0.18810	0.20000
29	0.18810	0.20000
30	0.18810	0.30000
31	0.18810	0.20000
32	0.18810	0.40000
33	0.18810	0.40000
34	0.35270	0.40000
35	0.48210	0.50000
36	0.48210	0.50000
37	0.48210	0.50000
38	0.48210	0.50000
39	0.48210	0.50000
40	1.00000	1.00000

**Table A-11
Superannuation Retirement Rates for Hazardous Duty
Employees**

Age	Males & Females Current	Males & Females Recommended
49	0.07180	0.07000
50	0.07180	0.07000
51	0.07180	0.07000
52	0.07180	0.07000
53	0.07180	0.07000
54	0.07180	0.07000
55	0.07180	0.07000
56	0.07180	0.07000
57	0.07180	0.07000
58	0.07180	0.07000
59	0.07180	0.10000
60	0.07180	0.12000
61	0.14360	0.16000
62	0.57430	0.30000
63	0.44500	0.15000
64	0.50250	0.15000
65	0.71780	0.25000
66 to 75	0.34460	0.25000
76 to 79	0.34460	0.35000
80	1.00000	1.00000

Table A-12
Early Retirement Rates for State Police and Hazardous Duty
Employees

	Males & Females	Males & Females
	Current	Recommended
Age		
17 to 49	0.0093	0.0080
50 to 59	0.0000	0.0000

Table A-13
Withdrawal Rates for State Police and Hazardous Duty Employees

	Males & Females	Males & Females
	Current	Recommended
Service		
0	0.0560	0.1500
1	0.0560	0.0500
2	0.0373	0.0300
3	0.0280	0.0250
4	0.0280	0.0150
5	0.0187	0.0090
6	0.0187	0.0065
7	0.0093	0.0055
8	0.0093	0.0040
9	0.0093	0.0025
10	0.0093	0.0020

Table A-14 Superannuation Retirement Rates for Legislators		
Age	Males & Females	Males & Females
	Current	Recommended
49	0.0125	0.05000
50	0.0125	0.05000
51	0.0188	0.05000
52	0.0188	0.05000
53	0.0188	0.05000
54	0.0188	0.07500
55	0.0188	0.07500
56	0.0188	0.07500
57	0.0251	0.07500
58	0.0251	0.07500
59	0.0251	0.12000
60	0.0251	0.12000
61	0.0314	0.12000
62	0.0314	0.12000
63	0.0314	0.12000
64	0.0376	0.25000
65	0.0376	0.25000
66	0.0376	0.25000
67	0.0439	0.25000
68	0.0439	0.25000
69	0.0502	0.25000
70	0.0502	0.25000
71	0.0564	0.25000
72	0.0564	0.25000
73 +	0.0627	0.25000

Table A-15
Early Retirement Rates for Legislators

Age	Males & Females	Males & Females
	Current	Recommended
17 to 49	0.0386	0.0300
50 to 59	0.0000	0.0000

Table A-16
Withdrawal Rates for Legislators

Service	Males & Females	Males & Females
	Current	Recommended
0	-	0.05000
1	0.03860	0.05000
2	0.03860	0.05000
3	0.03860	0.10000
4	0.03860	0.05000
5	0.03860	0.10000
6	0.03860	0.05000
7	0.03860	0.05000
8	0.03860	0.05000
9	0.03860	0.05000
10	0.03860	0.01250

Table A-17 Superannuation Retirement Rates for Judicial Officers Males & Females		
Age	Current	Recommended
49 to 58	0.0227	0.0227
59	0.0227	0.1000
60	0.0227	0.0500
61	0.0227	0.0500
62	0.0227	0.0500
63	0.0227	0.0500
64	0.0227	0.0500
65	0.0227	0.1000
66	0.0227	0.1000
67	0.0227	0.1000
68	0.0227	0.1000
69	0.0227	0.5000
70	1.0000	1.0000

Table A-18 Early Retirement Rates for Judicial Officers Males & Females		
Age	Current	Recommended
17 to 49	0.00240	0.00500
50 to 59	0.00240	0.01200

Table A-19
Withdrawal Rates for Judicial Officers
Males & Females **Males & Females**
Service **Current** **Recommended**

0	0.0002	0.0200
1	0.0024	0.0200
2	0.0024	0.0100
3	0.0024	0.0100
4	0.0024	0.0100
5	0.0024	0.0050
6	0.0024	0.0045
7	0.0024	0.0040
8	0.0024	0.0035
9	0.0024	0.0030
10	0.0024	0.0025

Table A-20
Early Retirement Rates for Class A-3 and Class A-4 Active
General Employees with 15 or more Years of Service

Ages	Females Recommended	Males Recommended
31 to 46	0.01500	0.01500
47	0.02000	0.02000
48	0.02000	0.02000
49	0.02000	0.02000
50	0.02000	0.02000
51	0.03000	0.03000
52	0.04000	0.04000
53	0.04500	0.04500
54	0.05000	0.05000
55	0.05500	0.05500
56	0.05500	0.05500
57	0.05500	0.05500
58	0.05500	0.05500
59	0.05500	0.05500
60	0.05500	0.05500
61	0.06000	0.06000
62	0.20000	0.20000
63	0.10000	0.10000
64	0.15000	0.15000
65	0.00000	0.00000

Table A-21
Recommended Superannuation Retirement Rates
for Class A-3 and Class A-4 General Employees

Age	Recommended Superannuation Retirement Rates	Recommended Superannuation Retirement Rates
	Male	Female
55	15%	15%
56	16%	16%
57	17%	17%
58	18%	18%
59	19%	19%
60	20%	20%
61	20%	20%
62	25%	25%
63	20%	20%
64	20%	20%
65	25%	25%
66 to 79	20%	20%
80	100%	100%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

EXPERIENCE STUDY RESULTS SUMMARY				
Table Number		Calendar Years 2006-2010		
		Ratio of Actual to		Average Number of Decrements Per Year
		Expected	Recommended*	
1	Active Member Pre Retirement Mortality			
	Males	0.73	0.90	75.2
	Females	0.69	0.86	35.4
2	Non Disabled Annuitant and Survivor Mortality			
	Males	1.04	1.09	1,452.4
	Females	1.02	1.07	1,430.4
3	Disabled Annuitant Mortality			
	Males	0.93	0.98	129.6
	Females	1.13	1.05	104.2
4	Active Member Ordinary Disability			
	Males	0.73	0.85	130.4
	Females	0.53	0.86	136.2
	Rate of Early Retirements			
5	5-14 Years of Service			
	Males	0.43	0.73	179.6
	Females	0.40	0.83	208.4
6	15 or More Years of Service			
	Males	1.22	0.99	611.8
	Females	1.15	1.01	535.6
7	Rate of Superannuation Retirement			
	Males	0.83	0.94	1,148.0
	Females	0.83	1.01	1,013.8
8	Withdrawal Rates for Active Members			
	Males	0.93	0.94	921.4
	Females	1.04	1.06	1,169.6

* If blank, no assumption change is being recommended

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 1A

Calendar Years 2006 - 2010

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	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0200%	0.0400%
18	17	0	0.0	0.0	0.00	0.00	0.0000%	0.0200%	0.0400%
19	123	0	0.0	0.0	0.00	0.00	0.0000%	0.0200%	0.0400%
20	312	0	0.1	0.1	0.00	0.00	0.0000%	0.0200%	0.0400%
21	550	1	0.1	0.2	9.09	4.55	0.1818%	0.0200%	0.0400%
22	762	3	0.2	0.3	19.69	9.84	0.3937%	0.0200%	0.0400%
23	1,166	1	0.2	0.5	4.29	2.14	0.0858%	0.0200%	0.0400%
24	1,610	1	0.3	0.6	3.11	1.55	0.0621%	0.0200%	0.0400%
25	1,956	0	0.4	0.8	0.00	0.00	0.0000%	0.0200%	0.0400%
26	2,154	0	0.4	0.9	0.00	0.00	0.0000%	0.0200%	0.0400%
27	2,365	2	0.5	0.9	4.23	2.11	0.0846%	0.0200%	0.0400%
28	2,435	1	0.7	1.0	1.37	1.03	0.0411%	0.0300%	0.0400%
29	2,535	1	0.8	1.0	1.32	0.99	0.0395%	0.0300%	0.0400%
30	2,549	3	0.8	1.3	3.92	2.35	0.1177%	0.0300%	0.0500%
31	2,611	1	0.8	1.3	1.28	0.77	0.0383%	0.0300%	0.0500%
32	2,686	1	1.1	1.3	0.93	0.74	0.0372%	0.0400%	0.0500%
33	2,749	1	1.1	1.4	0.91	0.73	0.0364%	0.0400%	0.0500%
34	2,974	3	1.2	1.5	2.52	2.02	0.1009%	0.0400%	0.0500%
35	3,338	4	1.7	1.8	2.40	2.18	0.1199%	0.0500%	0.0550%
36	3,635	1	1.8	2.2	0.55	0.46	0.0275%	0.0500%	0.0600%
37	3,932	0	2.0	2.6	0.00	0.00	0.0000%	0.0500%	0.0650%
38	4,136	3	2.1	2.9	1.45	1.04	0.0725%	0.0500%	0.0700%
39	4,240	4	2.5	3.2	1.57	1.26	0.0944%	0.0600%	0.0750%
40	4,327	3	2.6	3.5	1.16	0.87	0.0693%	0.0600%	0.0800%
41	4,539	4	3.2	3.9	1.26	1.04	0.0881%	0.0700%	0.0850%
42	4,770	7	3.8	4.3	1.83	1.63	0.1468%	0.0800%	0.0900%
43	5,070	2	4.6	4.8	0.44	0.42	0.0395%	0.0900%	0.0950%
44	5,394	5	5.4	5.4	0.93	0.93	0.0927%	0.1000%	0.1000%
45	5,803	6	7.0	7.0	0.86	0.86	0.1034%	0.1200%	0.1200%
46	6,227	12	8.1	8.7	1.48	1.38	0.1927%	0.1300%	0.1400%
47	6,535	9	9.8	10.5	0.92	0.86	0.1377%	0.1500%	0.1600%
48	6,801	18	10.9	12.2	1.65	1.47	0.2647%	0.1600%	0.1800%
49	7,068	13	13.4	14.1	0.97	0.92	0.1839%	0.1900%	0.2000%
50	7,335	18	15.4	16.1	1.17	1.12	0.2454%	0.2100%	0.2200%
51	7,582	19	17.4	17.4	1.09	1.09	0.2506%	0.2300%	0.2300%
52	7,905	17	19.8	19.0	0.86	0.90	0.2151%	0.2500%	0.2400%
53	8,190	19	22.1	20.5	0.86	0.93	0.2320%	0.2700%	0.2500%
54	8,272	16	24.8	21.5	0.64	0.74	0.1934%	0.3000%	0.2600%
55	8,164	24	26.9	22.0	0.89	1.09	0.2940%	0.3300%	0.2700%
56	7,946	14	27.8	22.2	0.50	0.63	0.1762%	0.3500%	0.2800%
57	7,650	26	29.1	22.2	0.89	1.17	0.3399%	0.3800%	0.2900%
58	7,238	21	29.7	21.7	0.71	0.97	0.2902%	0.4100%	0.3000%
59	6,882	14	30.3	21.3	0.46	0.66	0.2034%	0.4400%	0.3100%
60	5,701	16	27.4	18.2	0.58	0.88	0.2807%	0.4800%	0.3200%
61	4,182	9	22.2	14.2	0.41	0.63	0.2152%	0.5300%	0.3400%
62	3,237	5	19.1	11.7	0.26	0.43	0.1545%	0.5900%	0.3600%
63	2,294	8	14.9	8.7	0.54	0.92	0.3487%	0.6500%	0.3800%
64	1,686	3	12.3	6.7	0.24	0.44	0.1779%	0.7300%	0.4000%
65	1,378	8	11.4	6.2	0.70	1.29	0.5808%	0.8300%	0.4500%
66	1,067	6	9.9	5.3	0.60	1.12	0.5623%	0.9300%	0.5000%
67	818	3	8.6	4.5	0.35	0.67	0.3667%	1.0500%	0.5500%
68	650	0	7.7	4.0	0.00	0.00	0.0000%	1.1800%	0.6200%
69	492	7	6.5	3.4	1.08	2.03	1.4228%	1.3200%	0.7000%
70	408	3	5.9	3.3	0.50	0.92	0.7362%	1.4600%	0.8000%
71	334	1	5.3	3.0	0.19	0.33	0.2994%	1.6000%	0.9000%
72	276	3	4.9	2.8	0.62	1.09	1.0889%	1.7700%	1.0000%
73	217	4	4.2	2.6	0.95	1.54	1.8476%	1.9400%	1.2000%
74	160	0	3.4	2.3	0.00	0.00	0.0000%	2.1400%	1.4500%
75	130	0	3.1	2.2	0.00	0.00	0.0000%	2.3600%	1.7000%
76	103	0	2.7	2.1	0.00	0.00	0.0000%	2.6200%	2.0000%
77	83	0	2.4	2.0	0.00	0.00	0.0000%	2.9000%	2.4000%
78	81	1	2.6	2.1	0.38	0.47	1.2346%	3.2200%	2.6000%
79	59	1	2.1	1.7	0.48	0.61	1.6949%	3.5500%	2.8000%
80	53	0	1.9	1.6	0.00	0.00	0.0000%	3.5500%	3.0000%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 1A

Calendar Years 2006 - 2010

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
81	39	0	1.4	1.2	0.00	0.00	0.0000%	3.5500%	3.0000%
82	34	0	1.2	1.0	0.00	0.00	0.0000%	3.5500%	3.0000%
83	23	0	0.8	0.7	0.00	0.00	0.0000%	3.5500%	3.0000%
84	24	0	0.8	0.7	0.00	0.00	0.0000%	3.5500%	3.0000%
85	14	0	0.5	0.4	0.00	0.00	0.0000%	3.5500%	3.0000%
86	11	0	0.4	0.3	0.00	0.00	0.0000%	3.5500%	3.0000%
87	9	0	0.3	0.3	0.00	0.00	0.0000%	3.5500%	3.0000%
88	6	0	0.2	0.2	0.00	0.00	0.0000%	3.5500%	3.0000%
89	1	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
90	2	0	0.1	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
91	2	0	0.1	0.1	0.00	0.00	0.0000%	3.5500%	3.0000%
92	1	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
93	1	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
94	1	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
95	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
96	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
97	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
98	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
99	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
100	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
101	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	3.5500%	3.0000%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
<i>Total</i>	<i>206,091</i>	<i>376</i>	<i>515.0</i>	<i>417.7</i>	<i>0.73</i>	<i>0.90</i>	<i>0.1824%</i>	<i>0.2499%</i>	<i>0.2499%</i>

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 1A

Calendar Years 2006 - 2010

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	2	0	0.0	0.0	0.00	0.00	0.0000%	0.0100%	0.0100%
18	31	0	0.0	0.0	0.00	0.00	0.0000%	0.0100%	0.0100%
19	188	0	0.0	0.0	0.00	0.00	0.0000%	0.0200%	0.0200%
20	412	0	0.1	0.1	0.00	0.00	0.0000%	0.0200%	0.0200%
21	660	0	0.1	0.1	0.00	0.00	0.0000%	0.0200%	0.0200%
22	953	0	0.2	0.2	0.00	0.00	0.0000%	0.0200%	0.0200%
23	1,417	0	0.3	0.3	0.00	0.00	0.0000%	0.0200%	0.0200%
24	1,855	0	0.4	0.4	0.00	0.00	0.0000%	0.0200%	0.0200%
25	2,121	1	0.4	0.4	2.36	2.36	0.0471%	0.0200%	0.0200%
26	2,448	1	0.5	0.5	2.04	2.04	0.0409%	0.0200%	0.0200%
27	2,624	1	0.5	0.5	1.91	1.91	0.0381%	0.0200%	0.0200%
28	2,765	0	0.6	0.6	0.00	0.00	0.0000%	0.0200%	0.0200%
29	2,871	1	0.6	0.6	1.74	1.74	0.0348%	0.0200%	0.0200%
30	2,894	0	0.6	0.6	0.00	0.00	0.0000%	0.0200%	0.0200%
31	2,920	0	0.6	0.6	0.00	0.00	0.0000%	0.0200%	0.0200%
32	2,883	0	0.6	0.6	0.00	0.00	0.0000%	0.0200%	0.0200%
33	2,950	1	0.9	0.9	1.13	1.13	0.0339%	0.0300%	0.0300%
34	3,135	0	0.9	0.9	0.00	0.00	0.0000%	0.0300%	0.0300%
35	3,439	3	1.0	1.0	2.91	2.91	0.0872%	0.0300%	0.0300%
36	3,729	1	1.1	1.1	0.89	0.89	0.0268%	0.0300%	0.0300%
37	3,997	1	1.6	1.6	0.63	0.63	0.0250%	0.0400%	0.0400%
38	4,226	3	1.7	1.7	1.77	1.77	0.0710%	0.0400%	0.0400%
39	4,357	2	1.7	1.7	1.15	1.15	0.0459%	0.0400%	0.0400%
40	4,400	1	2.2	1.8	0.45	0.57	0.0227%	0.0500%	0.0400%
41	4,569	1	2.3	1.8	0.44	0.55	0.0219%	0.0500%	0.0400%
42	4,820	4	2.9	2.2	1.38	1.84	0.0830%	0.0600%	0.0450%
43	5,226	2	3.1	2.6	0.64	0.77	0.0383%	0.0600%	0.0500%
44	5,674	3	4.0	3.1	0.76	0.96	0.0529%	0.0700%	0.0550%
45	6,073	3	4.3	3.6	0.71	0.82	0.0494%	0.0700%	0.0600%
46	6,468	4	4.5	4.2	0.88	0.95	0.0618%	0.0700%	0.0650%
47	6,734	5	6.1	4.7	0.83	1.06	0.0743%	0.0900%	0.0700%
48	7,015	5	7.0	5.3	0.71	0.95	0.0713%	0.1000%	0.0750%
49	7,331	11	8.1	5.9	1.36	1.88	0.1500%	0.1100%	0.0800%
50	7,634	8	9.2	6.5	0.87	1.23	0.1048%	0.1200%	0.0850%
51	7,940	7	9.5	7.1	0.73	0.98	0.0882%	0.1200%	0.0900%
52	8,197	11	11.5	7.8	0.96	1.41	0.1342%	0.1400%	0.0950%
53	8,152	8	12.2	8.2	0.65	0.98	0.0981%	0.1500%	0.1000%
54	8,135	13	13.0	9.8	1.00	1.33	0.1598%	0.1600%	0.1200%
55	7,678	11	13.8	10.7	0.80	1.02	0.1433%	0.1800%	0.1400%
56	7,025	4	14.1	11.2	0.28	0.36	0.0569%	0.2000%	0.1600%
57	6,523	5	13.7	11.7	0.37	0.43	0.0767%	0.2100%	0.1800%
58	5,955	4	14.3	11.9	0.28	0.34	0.0672%	0.2400%	0.2000%
59	5,486	9	14.3	12.1	0.63	0.75	0.1641%	0.2600%	0.2200%
60	4,371	6	13.1	10.5	0.46	0.57	0.1373%	0.3000%	0.2400%
61	2,997	4	9.9	7.8	0.40	0.51	0.1335%	0.3300%	0.2600%
62	2,194	8	7.9	6.1	1.01	1.30	0.3647%	0.3600%	0.2800%
63	1,512	3	6.0	4.5	0.50	0.66	0.1984%	0.4000%	0.3000%
64	1,142	6	5.1	4.0	1.17	1.50	0.5256%	0.4500%	0.3500%
65	880	2	4.3	3.5	0.46	0.57	0.2274%	0.4900%	0.4000%
66	638	3	3.4	2.9	0.87	1.05	0.4706%	0.5400%	0.4500%
67	470	2	2.9	2.4	0.70	0.85	0.4255%	0.6100%	0.5000%
68	376	1	2.6	2.3	0.39	0.44	0.2660%	0.6800%	0.6000%
69	317	1	2.4	2.2	0.41	0.45	0.3160%	0.7700%	0.7000%
70	247	1	2.1	2.0	0.47	0.51	0.4057%	0.8700%	0.8000%
71	189	0	1.9	1.7	0.00	0.00	0.0000%	0.9900%	0.9000%
72	146	0	1.6	1.5	0.00	0.00	0.0000%	1.1300%	1.0000%
73	119	1	1.5	1.3	0.65	0.77	0.8439%	1.2900%	1.1000%
74	111	1	1.6	1.3	0.61	0.75	0.9009%	1.4800%	1.2000%
75	81	0	1.4	1.1	0.00	0.00	0.0000%	1.6800%	1.3000%
76	49	1	0.9	0.7	1.09	1.47	2.0619%	1.9000%	1.4000%
77	41	1	0.9	0.6	1.13	1.63	2.4390%	2.1500%	1.5000%
78	32	0	0.8	0.5	0.00	0.00	0.0000%	2.4200%	1.6000%
79	28	1	0.7	0.5	1.35	2.14	3.6364%	2.7000%	1.7000%
80	22	0	0.6	0.4	0.00	0.00	0.0000%	2.7000%	1.8000%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 1A

Calendar Years 2006 - 2010

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
81	17	0	0.5	0.3	0.00	0.00	0.0000%	2.7000%	1.9000%
82	14	0	0.4	0.3	0.00	0.00	0.0000%	2.7000%	2.0000%
83	14	0	0.4	0.3	0.00	0.00	0.0000%	2.7000%	2.0000%
84	10	1	0.3	0.2	3.90	5.26	10.5263%	2.7000%	2.0000%
85	5	0	0.1	0.1	0.00	0.00	0.0000%	2.7000%	2.0000%
86	4	0	0.1	0.1	0.00	0.00	0.0000%	2.7000%	2.0000%
87	4	0	0.1	0.1	0.00	0.00	0.0000%	2.7000%	2.0000%
88	2	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
89	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
90	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
91	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
92	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
93	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
94	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
95	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
96	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
97	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
98	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
99	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
100	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
101	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	2.7000%	2.0000%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	199,928	177	258.0	205.6	0.69	0.86	0.0885%	0.1290%	0.1290%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 1A

Calendar Years 2006 - 2010

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	4,540	6	0.9	1.8	6.61	3.30	0.1322%	0.0200%	0.0400%
25-29	11,444	4	2.8	4.6	1.44	0.87	0.0350%	0.0243%	0.0400%
30-34	13,568	9	4.9	6.8	1.83	1.33	0.0663%	0.0362%	0.0500%
35-39	19,279	12	10.1	12.6	1.19	0.95	0.0622%	0.0522%	0.0656%
40-44	24,098	21	19.5	21.8	1.07	0.96	0.0871%	0.0811%	0.0906%
45-49	32,432	58	49.2	52.5	1.18	1.10	0.1788%	0.1516%	0.1619%
50-54	39,283	89	99.5	94.5	0.89	0.94	0.2266%	0.2534%	0.2406%
55-59	37,879	99	143.8	109.5	0.69	0.90	0.2614%	0.3796%	0.2891%
60-64	17,100	41	95.8	59.6	0.43	0.69	0.2398%	0.5605%	0.3484%
65-69	4,404	24	44.1	23.5	0.54	1.02	0.5450%	1.0014%	0.5337%
70-74	1,394	11	23.8	13.9	0.46	0.79	0.7894%	1.7075%	1.0003%
75-79	455	2	12.9	10.0	0.16	0.20	0.4396%	2.8245%	2.1981%
80-84	172	0	6.1	5.1	0.00	0.00	0.0000%	3.5500%	3.0000%
85-89	39	0	1.4	1.2	0.00	0.00	0.0000%	3.5500%	3.0000%
90-94	6	0	0.2	0.2	0.00	0.00	0.0000%	3.5500%	3.0000%
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	206,091	376	515.0	417.7	0.73	0.90	0.1824%	0.2499%	0.2027%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 1A

Calendar Years 2006 - 2010

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	5,516	0	1.1	1.1	0.00	0.00	0.0000%	0.0199%	0.0199%
25-29	12,828	4	2.6	2.6	1.56	1.56	0.0312%	0.0200%	0.0200%
30-34	14,781	1	3.6	3.6	0.28	0.28	0.0068%	0.0241%	0.0241%
35-39	19,747	10	7.2	7.2	1.39	1.39	0.0506%	0.0364%	0.0364%
40-44	24,689	11	14.5	11.5	0.76	0.96	0.0446%	0.0587%	0.0465%
45-49	33,620	28	29.9	23.7	0.94	1.18	0.0833%	0.0890%	0.0705%
50-54	40,058	47	55.4	39.3	0.85	1.19	0.1173%	0.1383%	0.0982%
55-59	32,667	33	70.1	57.7	0.47	0.57	0.1010%	0.2147%	0.1767%
60-64	12,214	27	42.1	33.0	0.64	0.82	0.2211%	0.3445%	0.2698%
65-69	2,680	9	15.6	13.2	0.58	0.68	0.3359%	0.5827%	0.4929%
70-74	811	3	8.8	7.8	0.34	0.39	0.3701%	1.0896%	0.9579%
75-79	230	3	4.7	3.3	0.64	0.90	1.3072%	2.0342%	1.4460%
80-84	76	1	2.1	1.5	0.49	0.69	1.3158%	2.7000%	1.9197%
85-89	14	0	0.4	0.3	0.00	0.00	0.0000%	2.7000%	2.0000%
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	199,928	177	258.0	205.6	0.69	0.86	0.0885%	0.1290%	0.1028%

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
2006	46,559	84	112.1	92.4	0.75	0.91	0.1804%	0.2407%	0.1985%
2007	46,697	88	116.5	94.8	0.76	0.93	0.1884%	0.2496%	0.2029%
2008	45,257	85	112.0	91.0	0.76	0.93	0.1878%	0.2474%	0.2012%
2009	45,321	69	115.7	92.9	0.60	0.74	0.1522%	0.2552%	0.2049%
2010	22,257	50	58.7	46.6	0.85	1.07	0.2247%	0.2640%	0.2094%
<i>Total</i>	<i>206,091</i>	<i>376</i>	<i>515.0</i>	<i>417.7</i>	<i>0.73</i>	<i>0.90</i>	<i>0.1824%</i>	<i>0.2499%</i>	<i>0.2027%</i>

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
2006	44,826	37	55.8	44.4	0.66	0.83	0.0825%	0.1245%	0.0990%
2007	45,011	38	58.1	46.3	0.65	0.82	0.0844%	0.1291%	0.1028%
2008	44,110	41	56.4	45.0	0.73	0.91	0.0929%	0.1278%	0.1019%
2009	44,258	40	58.1	46.4	0.69	0.86	0.0904%	0.1312%	0.1048%
2010	21,723	21	29.6	23.6	0.71	0.89	0.0967%	0.1364%	0.1088%
<i>Total</i>	<i>199,928</i>	<i>177</i>	<i>258.0</i>	<i>205.6</i>	<i>0.69</i>	<i>0.86</i>	<i>0.0885%</i>	<i>0.1290%</i>	<i>0.1028%</i>

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 2A

Calendar Years 2006 - 2010

Mortality Experience of Non Disabled Annuitants and Survivors

Males

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
30	89	0	0.1	0.1	0.00	0.00	0.0000%	0.1067%	0.1067%
31	116	0	0.1	0.1	0.00	0.00	0.0000%	0.1199%	0.1199%
32	134	0	0.2	0.2	0.00	0.00	0.0000%	0.1350%	0.1350%
33	158	1	0.2	0.2	4.19	4.19	0.6349%	0.1516%	0.1516%
34	179	0	0.3	0.3	0.00	0.00	0.0000%	0.1687%	0.1687%
35	225	2	0.4	0.4	4.79	4.79	0.8889%	0.1857%	0.1857%
36	290	1	0.6	0.6	1.71	1.71	0.3454%	0.2021%	0.2021%
37	342	0	0.7	0.7	0.00	0.00	0.0000%	0.2172%	0.2172%
38	395	1	0.9	0.9	1.10	1.10	0.2532%	0.2298%	0.2298%
39	384	0	0.9	0.9	0.00	0.00	0.0000%	0.2414%	0.2414%
40	393	0	1.0	1.0	0.00	0.00	0.0000%	0.2531%	0.2531%
41	431	0	1.1	1.1	0.00	0.00	0.0000%	0.2657%	0.2657%
42	462	0	1.3	1.3	0.00	0.00	0.0000%	0.2804%	0.2804%
43	528	2	1.6	1.6	1.27	1.27	0.3788%	0.2974%	0.2974%
44	569	0	1.8	1.8	0.00	0.00	0.0000%	0.3172%	0.3172%
45	655	1	2.2	2.2	0.45	0.45	0.1527%	0.3397%	0.3397%
46	735	4	2.7	2.7	1.51	1.51	0.5446%	0.3610%	0.3610%
47	823	4	3.2	3.2	1.26	1.26	0.4860%	0.3843%	0.3843%
48	947	3	3.9	3.9	0.77	0.77	0.3168%	0.4089%	0.4089%
49	1,080	4	4.7	4.7	0.85	0.85	0.3704%	0.4350%	0.4350%
50	1,255	6	5.8	5.8	1.03	1.03	0.4783%	0.4624%	0.4624%
51	1,531	6	7.3	7.3	0.83	0.83	0.3919%	0.4742%	0.4742%
52	1,825	9	8.8	8.8	1.03	1.03	0.4933%	0.4802%	0.4802%
53	2,225	20	10.8	10.8	1.85	1.85	0.8991%	0.4868%	0.4868%
54	2,745	16	13.5	13.5	1.18	1.18	0.5829%	0.4932%	0.4932%
55	3,376	23	17.1	17.1	1.35	1.35	0.6814%	0.5065%	0.5065%
56	4,173	33	22.1	22.1	1.49	1.49	0.7909%	0.5296%	0.5296%
57	5,041	43	28.3	28.3	1.52	1.52	0.8531%	0.5618%	0.5618%
58	6,183	61	37.5	37.5	1.63	1.63	0.9866%	0.6060%	0.6060%
59	7,657	58	50.4	50.4	1.15	1.15	0.7575%	0.6579%	0.6579%
60	8,732	68	62.9	62.9	1.08	1.08	0.7787%	0.7204%	0.7204%
61	9,611	88	76.7	76.7	1.15	1.15	0.9156%	0.7976%	0.7976%
62	9,764	80	85.8	85.8	0.93	0.93	0.8193%	0.8786%	0.8786%
63	9,560	126	93.5	93.5	1.35	1.35	1.3180%	0.9783%	0.9783%
64	8,863	113	95.9	95.0	1.18	1.19	1.2750%	1.0825%	1.0717%
65	8,614	113	103.3	101.2	1.09	1.12	1.3118%	1.1988%	1.1748%
66	8,368	118	112.0	108.7	1.05	1.09	1.4101%	1.3390%	1.2988%
67	7,827	108	116.0	111.4	0.93	0.97	1.3799%	1.4824%	1.4231%
68	7,353	111	119.6	113.6	0.93	0.98	1.5096%	1.6259%	1.5446%
69	6,990	128	125.5	119.3	1.02	1.07	1.8313%	1.7961%	1.7063%
70	6,667	141	131.2	124.6	1.07	1.13	2.1151%	1.9677%	1.8693%
71	6,410	142	139.5	132.6	1.02	1.07	2.2155%	2.1772%	2.0683%
72	6,169	161	149.1	141.7	1.08	1.14	2.6100%	2.4174%	2.2965%
73	5,949	155	160.2	152.2	0.97	1.02	2.6055%	2.6926%	2.5580%
74	5,868	187	176.3	167.5	1.06	1.12	3.1868%	3.0039%	2.8537%
75	5,720	220	193.3	183.7	1.14	1.20	3.8462%	3.3799%	3.2109%
76	5,540	212	208.7	198.3	1.02	1.07	3.8267%	3.7671%	3.5787%
77	5,308	235	224.2	213.0	1.05	1.10	4.4273%	4.2244%	4.0132%
78	5,203	270	246.2	233.9	1.10	1.15	5.1893%	4.7324%	4.4958%
79	4,894	275	259.5	246.5	1.06	1.12	5.6191%	5.3021%	5.0370%
80	4,594	306	272.9	259.2	1.12	1.18	6.6609%	5.9395%	5.6425%
81	4,351	273	291.6	277.0	0.94	0.99	6.2744%	6.7015%	6.3664%
82	4,046	312	305.3	290.1	1.02	1.08	7.7123%	7.5477%	7.1703%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 2A

Calendar Years 2006 - 2010

Mortality Experience of Non Disabled Annuitants and Survivors

Males

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
83	3,691	326	310.5	295.0	1.05	1.11	8.8323%	8.4134%	7.9927%
84	3,312	298	312.4	296.8	0.95	1.00	8.9976%	9.4326%	8.9610%
85	2,907	315	304.3	289.1	1.04	1.09	10.8378%	10.4704%	9.9469%
86	2,555	312	296.6	281.8	1.05	1.11	12.2114%	11.6087%	11.0283%
87	2,083	271	270.0	256.5	1.00	1.06	13.0132%	12.9648%	12.3166%
88	1,734	251	250.8	238.2	1.00	1.05	14.4794%	14.4671%	13.7437%
89	1,457	219	232.9	221.3	0.94	0.99	15.0309%	15.9879%	15.1885%
90	1,180	203	209.6	199.1	0.97	1.02	17.2034%	17.7620%	16.8739%
91	958	176	185.2	177.8	0.95	0.99	18.3812%	19.3465%	18.5726%
92	773	156	163.5	158.6	0.95	0.98	20.1811%	21.1461%	20.5117%
93	565	144	128.8	126.2	1.12	1.14	25.5093%	22.8113%	22.3551%
94	398	106	97.3	96.3	1.09	1.10	26.6667%	24.4739%	24.2292%
95	289	82	75.9	75.9	1.08	1.08	28.4229%	26.3241%	26.3241%
96	190	58	52.9	52.9	1.10	1.10	30.6069%	27.9394%	27.9394%
97	120	40	35.3	35.3	1.13	1.13	33.4728%	29.5088%	29.5088%
98	73	26	22.8	22.8	1.14	1.14	35.6164%	31.2782%	31.2782%
99	40	18	12.9	12.9	1.39	1.39	45.5696%	32.7575%	32.7575%
100	22	9	7.5	7.5	1.20	1.20	40.9091%	34.1809%	34.1809%
101	12	4	4.1	4.1	0.97	0.97	34.7826%	35.8628%	35.8628%
102	8	3	3.0	3.0	1.01	1.01	37.5000%	37.1685%	37.1685%
103	5	3	1.7	1.7	1.74	1.74	66.6667%	38.3040%	38.3040%
104	1	1	0.2	0.2	5.10	5.10	100.0000%	39.2003%	39.2003%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	39.7886%	39.7886%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
111	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
112	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
113	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
114	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
115	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
116	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
117	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
118	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
119	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
120	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	223,967	7,262	6,957.2	6,670.8	1.04	1.09	3.2424%	3.1064%	3.1064%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 2A

Calendar Years 2006 - 2010

Mortality Experience of Non Disabled Annuitants and Survivors

Females

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
30	116	0	0.0	0.0	0.00	0.00	0.0000%	0.0341%	0.0341%
31	140	0	0.1	0.1	0.00	0.00	0.0000%	0.0403%	0.0403%
32	146	0	0.1	0.1	0.00	0.00	0.0000%	0.0459%	0.0459%
33	168	0	0.1	0.1	0.00	0.00	0.0000%	0.0513%	0.0513%
34	207	0	0.1	0.1	0.00	0.00	0.0000%	0.0561%	0.0561%
35	232	1	0.1	0.1	7.09	7.09	0.4310%	0.0608%	0.0608%
36	269	0	0.2	0.2	0.00	0.00	0.0000%	0.0653%	0.0653%
37	322	0	0.2	0.2	0.00	0.00	0.0000%	0.0698%	0.0698%
38	366	0	0.3	0.3	0.00	0.00	0.0000%	0.0747%	0.0747%
39	391	0	0.3	0.3	0.00	0.00	0.0000%	0.0803%	0.0803%
40	410	0	0.4	0.4	0.00	0.00	0.0000%	0.0875%	0.0875%
41	452	1	0.4	0.4	2.31	2.31	0.2215%	0.0959%	0.0959%
42	518	2	0.5	0.5	3.66	3.66	0.3861%	0.1056%	0.1056%
43	570	1	0.7	0.7	1.51	1.51	0.1754%	0.1161%	0.1161%
44	678	1	0.9	0.9	1.16	1.16	0.1475%	0.1275%	0.1275%
45	789	2	1.1	1.1	1.84	1.84	0.2536%	0.1382%	0.1382%
46	907	0	1.4	1.4	0.00	0.00	0.0000%	0.1491%	0.1491%
47	1,027	2	1.6	1.6	1.21	1.21	0.1947%	0.1604%	0.1604%
48	1,173	2	2.0	2.0	0.98	0.98	0.1705%	0.1734%	0.1734%
49	1,328	5	2.5	2.5	2.01	2.01	0.3766%	0.1875%	0.1875%
50	1,583	5	3.2	3.2	1.55	1.55	0.3159%	0.2044%	0.2044%
51	1,951	3	4.2	4.2	0.71	0.71	0.1538%	0.2161%	0.2161%
52	2,420	8	5.7	5.7	1.40	1.40	0.3306%	0.2365%	0.2365%
53	3,057	15	8.0	8.0	1.87	1.87	0.4907%	0.2628%	0.2628%
54	3,771	11	11.1	11.1	0.99	0.99	0.2917%	0.2944%	0.2944%
55	4,397	24	14.6	14.4	1.65	1.67	0.5458%	0.3311%	0.3278%
56	4,837	12	18.1	17.6	0.66	0.68	0.2481%	0.3741%	0.3629%
57	5,107	22	21.5	20.4	1.02	1.08	0.4308%	0.4213%	0.4002%
58	5,340	28	25.2	23.5	1.11	1.19	0.5244%	0.4728%	0.4397%
59	5,585	33	29.7	27.0	1.11	1.22	0.5909%	0.5314%	0.4836%
60	5,918	37	35.2	31.4	1.05	1.18	0.6252%	0.5956%	0.5301%
61	6,507	37	43.3	38.1	0.86	0.97	0.5686%	0.6647%	0.5849%
62	6,445	41	47.6	41.4	0.86	0.99	0.6362%	0.7387%	0.6427%
63	6,398	44	52.3	45.0	0.84	0.98	0.6877%	0.8175%	0.7031%
64	6,100	55	55.1	46.8	1.00	1.18	0.9017%	0.9026%	0.7672%
65	6,071	60	60.4	51.4	0.99	1.17	0.9883%	0.9957%	0.8463%
66	6,121	76	67.1	57.0	1.13	1.33	1.2417%	1.0964%	0.9319%
67	5,934	60	71.5	60.8	0.84	0.99	1.0112%	1.2047%	1.0240%
68	5,674	64	75.1	63.8	0.85	1.00	1.1281%	1.3230%	1.1246%
69	5,538	57	80.6	69.3	0.71	0.82	1.0293%	1.4557%	1.2519%
70	5,442	81	87.5	76.1	0.93	1.06	1.4886%	1.6084%	1.3993%
71	5,390	92	95.4	84.0	0.96	1.10	1.7069%	1.7706%	1.5581%
72	5,276	92	103.9	92.5	0.89	0.99	1.7439%	1.9694%	1.7528%
73	5,226	93	113.5	102.1	0.82	0.91	1.7796%	2.1715%	1.9544%
74	5,202	135	125.2	113.9	1.08	1.19	2.5954%	2.4067%	2.1901%
75	5,240	131	138.1	127.0	0.95	1.03	2.5002%	2.6357%	2.4248%
76	5,222	145	151.6	141.0	0.96	1.03	2.7770%	2.9039%	2.7006%
77	5,245	165	169.1	159.0	0.98	1.04	3.1459%	3.2241%	3.0307%
78	5,333	186	189.5	180.1	0.98	1.03	3.4877%	3.5541%	3.3764%
79	5,328	210	209.0	198.6	1.00	1.06	3.9418%	3.9238%	3.7276%
80	5,304	213	230.0	218.5	0.93	0.97	4.0158%	4.3372%	4.1203%
81	5,297	242	254.3	241.5	0.95	1.00	4.5691%	4.8005%	4.5605%
82	5,211	291	277.3	263.4	1.05	1.10	5.5849%	5.3218%	5.0557%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 2A

Calendar Years 2006 - 2010

Mortality Experience of Non Disabled Annuitants and Survivors

Females

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
83	4,947	277	292.3	277.7	0.95	1.00	5.5994%	5.9090%	5.6136%
84	4,704	312	309.1	293.7	1.01	1.06	6.6327%	6.5718%	6.2432%
85	4,393	292	324.2	308.0	0.90	0.95	6.6469%	7.3806%	7.0116%
86	4,119	363	341.8	328.1	1.06	1.11	8.8128%	8.2981%	7.9662%
87	3,694	354	344.6	334.3	1.03	1.06	9.5844%	9.3297%	9.0498%
88	3,306	343	343.5	336.6	1.00	1.02	10.3766%	10.3917%	10.1839%
89	2,884	347	335.5	332.1	1.03	1.04	12.0319%	11.6324%	11.5161%
90	2,447	314	314.5	314.5	1.00	1.00	12.8347%	12.8555%	12.8555%
91	2,072	318	292.4	292.4	1.09	1.09	15.3512%	14.1170%	14.1170%
92	1,697	263	261.1	261.1	1.01	1.01	15.4979%	15.3875%	15.3875%
93	1,381	257	231.6	231.6	1.11	1.11	18.6097%	16.7725%	16.7725%
94	1,084	213	194.9	194.9	1.09	1.09	19.6585%	17.9895%	17.9895%
95	815	180	156.0	156.0	1.15	1.15	22.0859%	19.1419%	19.1419%
96	607	150	122.6	122.6	1.22	1.22	24.7321%	20.2116%	20.2116%
97	418	129	89.3	89.3	1.45	1.45	30.8612%	21.3524%	21.3524%
98	289	87	64.1	64.1	1.36	1.36	30.1560%	22.2162%	22.2162%
99	187	65	42.9	42.9	1.51	1.51	34.7594%	22.9542%	22.9542%
100	122	33	28.7	28.7	1.15	1.15	27.0492%	23.5574%	23.5574%
101	90	35	21.9	21.9	1.60	1.60	39.1061%	24.4834%	24.4834%
102	40	13	10.2	10.2	1.28	1.28	32.5000%	25.4498%	25.4498%
103	23	11	6.0	6.0	1.84	1.84	48.8889%	26.6044%	26.6044%
104	13	6	3.6	3.6	1.65	1.65	46.1538%	27.9055%	27.9055%
105	6	3	1.8	1.8	1.71	1.71	50.0000%	29.3116%	29.3116%
106	3	2	0.9	0.9	2.17	2.17	66.6667%	30.7811%	30.7811%
107	1	0	0.3	0.3	0.00	0.00	0.0000%	32.2725%	32.2725%
108	1	0	0.2	0.2	0.00	0.00	0.0000%	33.7441%	33.7441%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	35.1544%	35.1544%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	36.4617%	36.4617%
111	0	0	0.0	0.0	0.00	0.00	0.0000%	37.6246%	37.6246%
112	0	0	0.0	0.0	0.00	0.00	0.0000%	38.6015%	38.6015%
113	0	0	0.0	0.0	0.00	0.00	0.0000%	39.3507%	39.3507%
114	0	0	0.0	0.0	0.00	0.00	0.0000%	39.8308%	39.8308%
115	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
116	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
117	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
118	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
119	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
120	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	217,329	7,152	7,021.2	6,704.6	1.02	1.07	3.2909%	3.2307%	3.2307%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 2A

Calendar Years 2006 - 2010

Mortality Experience of Non Disabled Annuitants and Survivors

Males

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	95	1	0.0	0.0	0.00	0.00	1.0526%	0.0000%	0.0000%
25-29	168	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
30-34	675	1	1.0	1.0	1.05	1.05	0.1481%	0.1415%	0.1415%
35-39	1,636	4	3.6	3.6	1.12	1.12	0.2446%	0.2189%	0.2189%
40-44	2,382	2	6.8	6.8	0.29	0.29	0.0840%	0.2858%	0.2858%
45-49	4,240	16	16.6	16.6	0.96	0.96	0.3774%	0.3918%	0.3918%
50-54	9,580	57	46.2	46.2	1.23	1.23	0.5950%	0.4822%	0.4822%
55-59	26,428	218	155.4	155.4	1.40	1.40	0.8249%	0.5878%	0.5878%
60-64	46,530	475	414.8	413.9	1.15	1.15	1.0208%	0.8915%	0.8894%
65-69	39,151	578	576.4	554.1	1.00	1.04	1.4763%	1.4723%	1.4153%
70-74	31,062	786	756.3	718.5	1.04	1.09	2.5305%	2.4348%	2.3131%
75-79	26,665	1,212	1,132.0	1,075.4	1.07	1.13	4.5453%	4.2452%	4.0329%
80-84	19,994	1,515	1,492.7	1,418.1	1.01	1.07	7.5775%	7.4661%	7.0928%
85-89	10,735	1,368	1,354.6	1,286.9	1.01	1.06	12.7440%	12.6196%	11.9886%
90-94	3,873	785	784.3	758.0	1.00	1.04	20.2711%	20.2543%	19.5741%
95-99	710	224	199.9	199.9	1.12	1.12	31.5493%	28.1585%	28.1585%
100 and over	47	20	16.5	16.5	1.21	1.21	43.0108%	35.5638%	35.5638%
Total	223,967	7,262	6,957.2	6,670.8	1.04	1.09	3.2424%	3.1064%	2.9785%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 2A

Calendar Years 2006 - 2010

Mortality Experience of Non Disabled Annuitants and Survivors

Females

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
<25	75	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
25-29	249	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
30-34	776	0	0.4	0.4	0.00	0.00	0.0000%	0.0470%	0.0470%
35-39	1,579	1	1.1	1.1	0.89	0.89	0.0634%	0.0714%	0.0714%
40-44	2,627	5	2.9	2.9	1.75	1.75	0.1903%	0.1090%	0.1090%
45-49	5,223	11	8.6	8.6	1.28	1.28	0.2106%	0.1649%	0.1649%
50-54	12,782	42	32.3	32.3	1.30	1.30	0.3286%	0.2528%	0.2528%
55-59	25,265	119	109.1	102.9	1.09	1.16	0.4710%	0.4318%	0.4072%
60-64	31,368	214	233.5	202.6	0.92	1.06	0.6822%	0.7443%	0.6460%
65-69	29,337	317	354.7	302.3	0.89	1.05	1.0806%	1.2091%	1.0305%
70-74	26,535	493	525.5	468.6	0.94	1.05	1.8580%	1.9805%	1.7662%
75-79	26,367	837	857.4	805.7	0.98	1.04	3.1745%	3.2519%	3.0557%
80-84	25,462	1,335	1,363.1	1,294.9	0.98	1.03	5.2431%	5.3533%	5.0856%
85-89	18,395	1,699	1,689.6	1,639.2	1.01	1.04	9.2362%	9.1851%	8.9109%
90-94	8,680	1,365	1,294.6	1,294.6	1.05	1.05	15.7267%	14.9158%	14.9158%
95-99	2,315	611	474.9	474.9	1.29	1.29	26.3931%	20.5124%	20.5124%
100 and over	298	103	73.6	73.6	1.40	1.40	34.6218%	24.7462%	24.7462%
Total	217,329	7,152	7,021.2	6,704.6	1.02	1.07	3.2909%	3.2307%	3.0850%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 2B

Mortality Experience of Non Disabled Annuitants and Survivors

Males

Year	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2006	47,628	1,496	1,470.8	1,409.8	1.02	1.06	3.1410%	3.0880%	2.9600%
2007	48,257	1,633	1,514.1	1,451.4	1.08	1.13	3.3840%	3.1375%	3.0076%
2008	50,680	1,680	1,561.3	1,497.3	1.08	1.12	3.3149%	3.0807%	2.9544%
2009	51,382	1,607	1,591.9	1,526.7	1.01	1.05	3.1276%	3.0982%	2.9712%
2010	26,020	846	819.2	785.6	1.03	1.08	3.2514%	3.1482%	3.0194%
<i>Total</i>	<i>223,967</i>	<i>7,262</i>	<i>6,957.2</i>	<i>6,670.8</i>	<i>1.04</i>	<i>1.09</i>	<i>3.2424%</i>	<i>3.1064%</i>	<i>2.9785%</i>

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 2B

Mortality Experience of Non Disabled Annuitants and Survivors

Females

Year	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2006	46,433	1,533	1,496.6	1,428.5	1.02	1.07	3.3015%	3.2232%	3.0765%
2007	47,011	1,567	1,531.8	1,462.9	1.02	1.07	3.3333%	3.2584%	3.1117%
2008	49,169	1,634	1,576.2	1,505.4	1.04	1.09	3.3232%	3.2058%	3.0617%
2009	49,592	1,600	1,598.6	1,526.6	1.00	1.05	3.2263%	3.2234%	3.0782%
2010	25,124	818	818.0	781.2	1.00	1.05	3.2559%	3.2557%	3.1096%
<i>Total</i>	<i>217,329</i>	<i>7,152</i>	<i>7,021.2</i>	<i>6,704.6</i>	<i>1.02</i>	<i>1.07</i>	<i>3.2909%</i>	<i>3.2307%</i>	<i>3.0850%</i>

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 3A **Calendar Years 2006 - 2010**
Mortality Experience of Disabled Annuitants **Males**

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
30	4	0	0.1	0.1	0.00	0.00	0.0000%	2.1684%	2.0600%
31	6	0	0.1	0.1	0.00	0.00	0.0000%	2.1684%	2.0600%
32	7	1	0.1	0.1	7.09	7.47	15.3846%	2.1684%	2.0600%
33	14	0	0.3	0.3	0.00	0.00	0.0000%	2.1684%	2.0600%
34	26	1	0.6	0.5	1.77	1.87	3.8462%	2.1684%	2.0600%
35	35	0	0.8	0.7	0.00	0.00	0.0000%	2.1684%	2.0600%
36	42	0	0.9	0.9	0.00	0.00	0.0000%	2.1684%	2.0600%
37	44	2	0.9	0.9	2.12	2.23	4.5977%	2.1684%	2.0600%
38	50	0	1.1	1.0	0.00	0.00	0.0000%	2.1510%	2.0435%
39	66	0	1.4	1.3	0.00	0.00	0.0000%	2.1338%	2.0271%
40	82	2	1.7	1.6	1.16	1.22	2.4540%	2.1166%	2.0108%
41	102	0	2.1	2.0	0.00	0.00	0.0000%	2.0996%	1.9946%
42	137	2	2.8	2.7	0.70	0.74	1.4652%	2.0827%	1.9786%
43	169	3	3.5	3.3	0.86	0.91	1.7804%	2.0660%	1.9627%
44	203	0	4.1	3.9	0.00	0.00	0.0000%	2.0493%	1.9468%
45	211	4	4.3	4.1	0.93	0.98	1.9002%	2.0328%	1.9312%
46	228	3	4.9	4.6	0.62	0.65	1.3158%	2.1303%	2.0238%
47	250	3	5.6	5.3	0.54	0.57	1.2024%	2.2263%	2.1150%
48	264	5	6.1	5.8	0.82	0.86	1.8939%	2.3208%	2.2048%
49	312	10	7.5	7.2	1.33	1.40	3.2051%	2.4138%	2.2931%
50	364	3	9.1	8.7	0.33	0.35	0.8242%	2.5056%	2.3803%
51	405	13	10.5	10.0	1.24	1.30	3.2099%	2.5962%	2.4664%
52	476	13	12.8	12.1	1.02	1.07	2.7311%	2.6853%	2.5510%
53	528	9	14.8	14.0	0.61	0.64	1.7045%	2.7955%	2.6557%
54	556	14	16.2	15.3	0.87	0.91	2.5180%	2.9055%	2.7602%
55	615	11	18.7	17.8	0.59	0.62	1.7886%	3.0400%	2.8880%
56	683	19	21.7	20.6	0.88	0.92	2.7839%	3.1764%	3.0176%
57	720	16	23.9	22.7	0.67	0.71	2.2222%	3.3152%	3.1494%
58	754	22	26.1	24.8	0.84	0.89	2.9178%	3.4572%	3.2843%
59	817	18	29.2	27.7	0.62	0.65	2.2032%	3.5745%	3.3958%
60	756	30	27.9	26.5	1.07	1.13	3.9709%	3.6953%	3.5105%
61	700	33	27.0	25.6	1.22	1.29	4.7143%	3.8523%	3.6597%
62	629	18	25.1	23.8	0.72	0.76	2.8617%	3.9858%	3.7865%
63	579	20	24.1	22.9	0.83	0.87	3.4542%	4.1615%	3.9534%
64	544	21	23.5	22.3	0.90	0.94	3.8638%	4.3154%	4.0996%
65	534	14	23.9	22.7	0.59	0.62	2.6242%	4.4822%	4.2581%
66	497	16	23.4	22.2	0.68	0.72	3.2193%	4.7024%	4.4673%
67	442	23	21.7	20.6	1.06	1.12	5.2095%	4.9038%	4.6586%
68	387	30	19.7	18.7	1.52	1.61	7.7519%	5.0839%	4.8297%
69	323	15	17.2	16.3	0.87	0.92	4.6512%	5.3254%	5.0591%
70	294	17	16.3	15.5	1.04	1.10	5.7922%	5.5456%	5.2683%
71	270	14	15.8	15.0	0.89	0.94	5.1852%	5.8343%	5.5426%
72	252	14	15.5	14.7	0.91	0.95	5.5666%	6.1501%	5.8426%
73	232	22	15.0	14.3	1.46	1.54	9.5032%	6.4945%	6.1698%
74	213	21	14.6	13.9	1.44	1.51	9.8824%	6.8685%	6.5251%
75	191	10	14.0	13.3	0.72	0.75	5.2493%	7.3313%	6.9647%
76	177	17	13.7	13.1	1.24	1.30	9.6045%	7.7677%	7.3793%
77	157	13	13.0	12.3	1.00	1.05	8.3067%	8.2990%	7.8841%
78	150	15	13.3	12.6	1.13	1.19	10.0000%	8.8651%	8.4218%
79	142	14	13.4	12.8	1.04	1.10	9.8592%	9.4636%	8.9904%
80	132	15	13.3	12.6	1.13	1.19	11.4068%	10.0922%	9.5876%
81	112	8	12.0	11.4	0.66	0.70	7.1429%	10.7482%	10.2108%
82	100	11	11.4	10.9	0.96	1.01	11.0000%	11.4292%	10.8577%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 3A **Calendar Years 2006 - 2010**
Mortality Experience of Disabled Annuitants **Males**

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
83	83	8	10.0	9.5	0.80	0.84	9.6386%	12.0355%	11.4337%
84	65	9	8.2	7.8	1.09	1.15	13.9535%	12.7550%	12.1173%
85	55	6	7.3	6.9	0.82	0.87	11.0092%	13.3865%	12.7172%
86	47	11	6.5	6.2	1.69	1.78	23.6559%	14.0266%	13.3253%
87	39	7	5.7	5.4	1.23	1.29	18.1818%	14.7938%	14.0541%
88	33	8	5.1	4.9	1.56	1.64	24.2424%	15.5811%	14.8020%
89	17	6	2.7	2.5	2.24	2.35	36.3636%	16.2581%	15.4452%
90	9	3	1.6	1.5	1.88	1.98	33.3333%	17.7620%	16.8739%
91	5	2	1.0	0.9	2.07	2.18	40.0000%	19.3465%	18.3792%
92	3	1	0.6	0.6	1.58	1.66	33.3333%	21.1461%	20.0888%
93	2	0	0.5	0.4	0.00	0.00	0.0000%	22.8113%	21.6707%
94	2	1	0.5	0.5	2.04	2.15	50.0000%	24.4739%	23.2502%
95	1	0	0.3	0.3	0.00	0.00	0.0000%	26.3241%	25.0079%
96	1	0	0.1	0.1	0.00	0.00	0.0000%	27.9394%	26.5424%
97	0	0	0.0	0.0	0.00	0.00	0.0000%	29.5088%	28.0334%
98	0	0	0.0	0.0	0.00	0.00	0.0000%	31.2782%	29.7143%
99	0	0	0.0	0.0	0.00	0.00	0.0000%	32.7575%	31.1196%
100	1	0	0.3	0.3	0.00	0.00	0.0000%	34.1809%	32.4719%
101	1	1	0.4	0.3	2.79	2.94	100.0000%	35.8628%	34.0697%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	37.1685%	35.3101%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	38.3040%	36.3888%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	39.2003%	37.2403%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	39.7886%	37.7992%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
111	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
112	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
113	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
114	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
115	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
116	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
117	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
118	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
119	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
120	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	16,338	648	697.2	662.3	0.93	0.98	3.9662%	4.2674%	4.2674%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 3A **Calendar Years 2006 - 2010**
Mortality Experience of Disabled Annuitants **Females**

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
30	2	0	0.0	0.0	0.00	0.00	0.0000%	0.6874%	0.7390%
31	4	0	0.0	0.0	0.00	0.00	0.0000%	0.6986%	0.7510%
32	8	0	0.1	0.1	0.00	0.00	0.0000%	0.6986%	0.7510%
33	14	0	0.1	0.1	0.00	0.00	0.0000%	0.6930%	0.7450%
34	24	0	0.2	0.2	0.00	0.00	0.0000%	0.6874%	0.7390%
35	33	0	0.2	0.2	0.00	0.00	0.0000%	0.6819%	0.7330%
36	50	0	0.3	0.4	0.00	0.00	0.0000%	0.6764%	0.7271%
37	66	0	0.4	0.5	0.00	0.00	0.0000%	0.6710%	0.7213%
38	74	0	0.5	0.5	0.00	0.00	0.0000%	0.6655%	0.7154%
39	86	0	0.6	0.6	0.00	0.00	0.0000%	0.6602%	0.7097%
40	96	0	0.6	0.7	0.00	0.00	0.0000%	0.6602%	0.7097%
41	104	1	0.7	0.7	1.46	1.35	0.9615%	0.6602%	0.7097%
42	123	0	0.8	0.9	0.00	0.00	0.0000%	0.6602%	0.7097%
43	146	2	1.0	1.0	2.07	1.93	1.3699%	0.6602%	0.7097%
44	187	4	1.2	1.3	3.24	3.01	2.1390%	0.6602%	0.7097%
45	231	1	1.5	1.6	0.66	0.61	0.4329%	0.6548%	0.7039%
46	265	1	1.9	2.0	0.53	0.49	0.3774%	0.7135%	0.7670%
47	314	3	2.4	2.6	1.23	1.15	0.9554%	0.7747%	0.8328%
48	355	3	3.0	3.2	1.00	0.93	0.8463%	0.8453%	0.9087%
49	400	8	3.7	4.0	2.17	2.02	2.0000%	0.9196%	0.9886%
50	442	7	4.4	4.8	1.58	1.47	1.5855%	1.0056%	1.0810%
51	489	7	5.4	5.8	1.31	1.21	1.4315%	1.0967%	1.1790%
52	549	4	6.6	7.1	0.61	0.56	0.7286%	1.2021%	1.2923%
53	634	6	8.3	8.9	0.72	0.67	0.9471%	1.3133%	1.4118%
54	675	21	9.7	10.4	2.18	2.02	3.1111%	1.4300%	1.5373%
55	713	8	11.1	11.9	0.72	0.67	1.1220%	1.5514%	1.6678%
56	737	14	12.4	13.3	1.13	1.05	1.9009%	1.6771%	1.8029%
57	760	12	13.6	14.6	0.88	0.82	1.5789%	1.7921%	1.9265%
58	754	17	14.3	15.3	1.19	1.11	2.2561%	1.8935%	2.0355%
59	760	17	15.2	16.3	1.12	1.04	2.2383%	1.9952%	2.1448%
60	730	19	15.3	16.5	1.24	1.15	2.6045%	2.0981%	2.2555%
61	677	15	14.9	16.0	1.01	0.94	2.2157%	2.2034%	2.3687%
62	633	11	14.6	15.7	0.75	0.70	1.7391%	2.3133%	2.4868%
63	573	14	13.9	15.0	1.01	0.94	2.4433%	2.4299%	2.6121%
64	518	15	13.2	14.2	1.13	1.06	2.8986%	2.5554%	2.7471%
65	472	11	12.7	13.7	0.87	0.81	2.3305%	2.6924%	2.8943%
66	439	12	12.5	13.4	0.96	0.90	2.7366%	2.8431%	3.0563%
67	398	16	12.0	12.9	1.34	1.24	4.0252%	3.0094%	3.2351%
68	387	6	12.3	13.3	0.49	0.45	1.5524%	3.1928%	3.4323%
69	360	12	12.2	13.1	0.98	0.91	3.3333%	3.3946%	3.6492%
70	335	10	12.1	13.0	0.83	0.77	2.9895%	3.6156%	3.8868%
71	334	20	12.8	13.7	1.57	1.46	5.9970%	3.8253%	4.1122%
72	295	6	12.0	12.9	0.50	0.46	2.0374%	4.0837%	4.3900%
73	275	10	11.9	12.8	0.84	0.78	3.6364%	4.3268%	4.6513%
74	269	22	12.4	13.3	1.77	1.65	8.1937%	4.6223%	4.9690%
75	227	12	11.1	11.9	1.08	1.01	5.2980%	4.8979%	5.2652%
76	201	11	10.5	11.3	1.05	0.97	5.4726%	5.2306%	5.6229%
77	197	15	11.1	11.9	1.36	1.26	7.6336%	5.6291%	6.0513%
78	174	12	10.4	11.2	1.15	1.07	6.9164%	6.0072%	6.4577%
79	150	5	9.6	10.3	0.52	0.48	3.3333%	6.4088%	6.8895%
80	150	13	10.3	11.0	1.27	1.18	8.6667%	6.8360%	7.3487%
81	126	15	9.2	9.9	1.63	1.52	11.9048%	7.2920%	7.8389%
82	107	9	8.3	8.9	1.09	1.01	8.4507%	7.7801%	8.3636%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 3A Calendar Years 2006 - 2010
Mortality Experience of Disabled Annuitants **Females**

Age	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
83	99	13	8.2	8.8	1.59	1.48	13.1980%	8.3038%	8.9266%
84	97	9	8.6	9.2	1.05	0.97	9.2784%	8.8668%	9.5318%
85	89	11	8.5	9.1	1.30	1.21	12.4294%	9.5493%	10.2655%
86	82	11	8.4	9.1	1.30	1.21	13.4146%	10.2889%	11.0606%
87	67	14	7.4	8.0	1.88	1.75	20.8955%	11.0899%	11.9216%
88	46	6	5.5	5.9	1.10	1.02	13.0435%	11.8600%	12.7495%
89	31	4	4.0	4.3	1.01	0.94	12.9032%	12.7861%	13.7451%
90	28	5	3.8	4.0	1.33	1.24	18.1818%	13.6723%	14.6977%
91	23	7	3.3	3.5	2.13	1.98	31.1111%	14.6143%	15.7104%
92	15	3	2.3	2.4	1.33	1.23	20.6897%	15.6126%	16.7835%
93	12	3	2.0	2.2	1.49	1.39	25.0000%	16.7725%	18.0304%
94	9	1	1.5	1.6	0.65	0.61	11.7647%	17.9895%	19.3387%
95	7	4	1.2	1.3	3.21	2.99	61.5385%	19.1419%	20.5775%
96	3	1	0.6	0.7	1.65	1.53	33.3333%	20.2116%	21.7275%
97	2	1	0.4	0.5	2.34	2.18	50.0000%	21.3524%	22.9538%
98	1	0	0.2	0.2	0.00	0.00	0.0000%	22.2162%	23.8824%
99	1	1	0.2	0.2	4.36	4.05	100.0000%	22.9542%	24.6758%
100	0	0	0.0	0.0	0.00	0.00	0.0000%	23.5574%	25.3242%
101	0	0	0.0	0.0	0.00	0.00	0.0000%	24.4834%	26.3197%
102	0	0	0.0	0.0	0.00	0.00	0.0000%	25.4498%	27.3585%
103	0	0	0.0	0.0	0.00	0.00	0.0000%	26.6044%	28.5997%
104	0	0	0.0	0.0	0.00	0.00	0.0000%	27.9055%	29.9984%
105	0	0	0.0	0.0	0.00	0.00	0.0000%	29.3116%	31.5100%
106	0	0	0.0	0.0	0.00	0.00	0.0000%	30.7811%	33.0897%
107	0	0	0.0	0.0	0.00	0.00	0.0000%	32.2725%	34.6929%
108	0	0	0.0	0.0	0.00	0.00	0.0000%	33.7441%	36.2749%
109	0	0	0.0	0.0	0.00	0.00	0.0000%	35.1544%	37.7910%
110	0	0	0.0	0.0	0.00	0.00	0.0000%	36.4617%	39.1963%
111	0	0	0.0	0.0	0.00	0.00	0.0000%	37.6246%	37.6246%
112	0	0	0.0	0.0	0.00	0.00	0.0000%	38.6015%	38.6015%
113	0	0	0.0	0.0	0.00	0.00	0.0000%	39.3507%	39.3507%
114	0	0	0.0	0.0	0.00	0.00	0.0000%	39.8308%	39.8308%
115	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
116	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
117	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
118	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
119	0	0	0.0	0.0	0.00	0.00	0.0000%	40.0000%	40.0000%
120	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	17,723	521	461.5	496.1	1.13	1.05	2.9398%	2.6040%	2.6040%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 3A
Mortality Experience of Disabled Annuitants **Calendar Years 2006 - 2010**
Males

Age	Life Years Exposed	Number of 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	7	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
30-34	56	2	1.2	1.1	1.66	1.75	3.6036%	2.1684%	2.0600%
35-39	236	2	5.1	4.8	0.39	0.41	0.8493%	2.1551%	2.0474%
40-44	691	7	14.3	13.6	0.49	0.51	1.0130%	2.0753%	1.9716%
45-49	1,264	25	28.3	26.9	0.88	0.93	1.9778%	2.2428%	2.1306%
50-54	2,329	52	63.3	60.2	0.82	0.86	2.2327%	2.7193%	2.5833%
55-59	3,589	86	119.5	113.5	0.72	0.76	2.3965%	3.3305%	3.1640%
60-64	3,207	122	127.5	121.1	0.96	1.01	3.8042%	3.9758%	3.7770%
65-69	2,182	98	105.8	100.5	0.93	0.98	4.4923%	4.8491%	4.6066%
70-74	1,259	88	77.1	73.3	1.14	1.20	6.9897%	6.1260%	5.8197%
75-79	816	69	67.4	64.1	1.02	1.08	8.4559%	8.2646%	7.8513%
80-84	491	51	55.0	52.2	0.93	0.98	10.3870%	11.1924%	10.6328%
85-89	189	38	27.3	26.0	1.39	1.46	20.1058%	14.4645%	13.7413%
90-94	21	7	4.1	3.9	1.69	1.78	33.3333%	19.7428%	18.7557%
95-99	2	0	0.4	0.4	0.00	0.00	0.0000%	26.8625%	25.5194%
100 and over	2	1	0.7	0.7	1.43	1.50	50.0000%	35.0219%	33.2708%
Total	16,338	648	697.2	662.3	0.93	0.98	3.9662%	4.2674%	4.0540%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 3A Calendar Years 2006 - 2010
Mortality Experience of Disabled Annuitants **Females**

Age	Life Years Exposed	Number of 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	5	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
30-34	51	0	0.3	0.4	0.00	0.00	0.0000%	0.6913%	0.7432%
35-39	309	0	2.1	2.2	0.00	0.00	0.0000%	0.6687%	0.7189%
40-44	656	7	4.3	4.7	1.62	1.50	1.0679%	0.6602%	0.7097%
45-49	1,565	16	12.5	13.4	1.28	1.19	1.0227%	0.7997%	0.8597%
50-54	2,788	45	34.4	37.0	1.31	1.22	1.6141%	1.2329%	1.3254%
55-59	3,723	68	66.5	71.4	1.02	0.95	1.8267%	1.7852%	1.9191%
60-64	3,130	74	72.0	77.4	1.03	0.96	2.3646%	2.3007%	2.4733%
65-69	2,055	57	61.7	66.3	0.92	0.86	2.7744%	3.0031%	3.2283%
70-74	1,506	68	61.2	65.8	1.11	1.03	4.5153%	4.0629%	4.3676%
75-79	948	55	52.7	56.7	1.04	0.97	5.8047%	5.5624%	5.9796%
80-84	578	59	44.5	47.8	1.33	1.23	10.2076%	7.7003%	8.2778%
85-89	315	46	33.7	36.3	1.36	1.27	14.6264%	10.7274%	11.5319%
90-94	85	19	12.9	13.8	1.48	1.38	22.3529%	15.1220%	16.2562%
95-99	14	7	2.7	2.9	2.56	2.39	51.8519%	20.2172%	21.7335%
100 and over	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	17,723	521	461.5	496.1	1.13	1.05	2.9398%	2.6040%	2.7993%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 3B

Mortality Experience of Disabled Annuitants

Males

Year	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2006	3,470	128	146.8	139.5	0.87	0.92	3.6888%	4.2315%	4.0199%
2007	3,574	140	151.5	143.9	0.92	0.97	3.9172%	4.2390%	4.0270%
2008	3,682	157	156.5	148.6	1.00	1.06	4.2640%	4.2494%	4.0370%
2009	3,734	138	160.5	152.4	0.86	0.91	3.6958%	4.2976%	4.0827%
2010	1,878	85	81.9	77.8	1.04	1.09	4.5261%	4.3633%	4.1451%
<i>Total</i>	<i>16,338</i>	<i>648</i>	<i>697.2</i>	<i>662.3</i>	<i>0.93</i>	<i>0.98</i>	<i>3.9662%</i>	<i>4.2674%</i>	<i>4.0540%</i>

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 3B

Mortality Experience of Disabled Annuitants

Females

Year	Life Years Exposed	Number of Deaths			Ratio of Actual to		Mortality Rate		
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended
2006	3,779	98	96.3	103.5	1.02	0.95	2.5933%	2.5485%	2.7396%
2007	3,893	116	100.5	108.0	1.15	1.07	2.9797%	2.5810%	2.7745%
2008	3,964	116	103.2	110.9	1.12	1.05	2.9263%	2.6029%	2.7981%
2009	4,043	130	106.9	114.9	1.22	1.13	3.2154%	2.6431%	2.8413%
2010	2,044	61	54.7	58.8	1.12	1.04	2.9851%	2.6757%	2.8764%
<i>Total</i>	<i>17,723</i>	<i>521</i>	<i>461.5</i>	<i>496.1</i>	<i>1.13</i>	<i>1.05</i>	<i>2.9398%</i>	<i>2.6040%</i>	<i>2.7993%</i>

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 4A

Calendar Years 2006 - 2010

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	1,166	0	0.3	0.3	0.00	0.00	0.0000%	0.0300%	0.0225%
24	1,610	0	0.5	0.4	0.00	0.00	0.0000%	0.0300%	0.0225%
25	1,956	0	0.6	0.4	0.00	0.00	0.0000%	0.0300%	0.0225%
26	2,154	0	1.1	0.8	0.00	0.00	0.0000%	0.0500%	0.0375%
27	2,365	1	1.2	0.9	0.85	1.13	0.0423%	0.0500%	0.0375%
28	2,435	2	2.4	1.2	0.82	1.64	0.0821%	0.1000%	0.0500%
29	2,535	0	2.3	1.7	0.00	0.00	0.0000%	0.0900%	0.0675%
30	2,549	2	2.3	1.7	0.87	1.16	0.0785%	0.0900%	0.0675%
31	2,611	1	2.6	2.0	0.38	0.51	0.0383%	0.1000%	0.0750%
32	2,686	1	3.0	2.2	0.34	0.45	0.0372%	0.1100%	0.0825%
33	2,749	2	3.3	2.5	0.61	0.81	0.0728%	0.1200%	0.0900%
34	2,974	1	4.5	3.3	0.22	0.30	0.0336%	0.1500%	0.1125%
35	3,338	1	5.3	4.0	0.19	0.25	0.0300%	0.1600%	0.1200%
36	3,635	3	6.2	4.6	0.49	0.65	0.0825%	0.1700%	0.1275%
37	3,932	3	6.7	5.0	0.45	0.60	0.0763%	0.1700%	0.1275%
38	4,136	5	7.4	5.6	0.67	0.90	0.1209%	0.1800%	0.1350%
39	4,240	3	8.1	6.0	0.37	0.50	0.0708%	0.1900%	0.1425%
40	4,327	0	10.8	8.1	0.00	0.00	0.0000%	0.2500%	0.1875%
41	4,539	4	12.7	9.5	0.31	0.42	0.0881%	0.2800%	0.2100%
42	4,770	6	15.3	11.4	0.39	0.52	0.1258%	0.3200%	0.2400%
43	5,070	14	17.7	13.3	0.79	1.05	0.2762%	0.3500%	0.2625%
44	5,394	15	21.0	15.8	0.71	0.95	0.2781%	0.3900%	0.2925%
45	5,803	14	25.5	19.1	0.55	0.73	0.2413%	0.4400%	0.3300%
46	6,227	16	29.3	21.9	0.55	0.73	0.2570%	0.4700%	0.3525%
47	6,535	19	33.3	25.0	0.57	0.76	0.2907%	0.5100%	0.3825%
48	6,801	31	35.4	26.5	0.88	1.17	0.4558%	0.5200%	0.3900%
49	7,068	26	41.0	30.7	0.63	0.85	0.3679%	0.5800%	0.4350%
50	7,335	33	44.7	33.6	0.74	0.98	0.4499%	0.6100%	0.4575%
51	7,582	42	49.3	37.0	0.85	1.14	0.5539%	0.6500%	0.4875%
52	7,905	28	53.8	40.3	0.52	0.69	0.3542%	0.6800%	0.5100%
53	8,190	46	60.6	45.5	0.76	1.01	0.5617%	0.7400%	0.5550%
54	8,272	50	63.7	47.8	0.78	1.05	0.6044%	0.7700%	0.5775%
55	8,164	52	65.3	49.0	0.80	1.06	0.6369%	0.8000%	0.6000%
56	7,946	45	65.2	48.9	0.69	0.92	0.5664%	0.8200%	0.6150%
57	7,650	37	65.8	49.3	0.56	0.75	0.4837%	0.8600%	0.6450%
58	7,238	55	63.7	47.8	0.86	1.15	0.7599%	0.8800%	0.6600%
59	6,882	13	63.3	47.5	0.21	0.27	0.1889%	0.9200%	0.6900%
60	5,701	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
61	4,182	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
62	3,237	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
63	2,294	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
64	1,686	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
65	1,378	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
66	1,067	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
67	818	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
68	650	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
69	492	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70	408	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 2006 - 2010

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	1,417	0	1.0	0.5	0.00	0.00	0.0000%	0.0700%	0.0385%
24	1,855	0	1.3	0.7	0.00	0.00	0.0000%	0.0700%	0.0385%
25	2,121	0	1.5	0.8	0.00	0.00	0.0000%	0.0700%	0.0385%
26	2,448	2	2.0	1.1	1.02	1.86	0.0817%	0.0800%	0.0440%
27	2,624	1	2.6	1.4	0.38	0.69	0.0381%	0.1000%	0.0550%
28	2,765	0	2.8	1.5	0.00	0.00	0.0000%	0.1000%	0.0550%
29	2,871	0	4.0	2.2	0.00	0.00	0.0000%	0.1400%	0.0770%
30	2,894	2	4.9	2.7	0.41	0.74	0.0691%	0.1700%	0.0935%
31	2,920	1	5.8	3.2	0.17	0.31	0.0343%	0.2000%	0.1100%
32	2,883	1	6.3	3.5	0.16	0.29	0.0347%	0.2200%	0.1210%
33	2,950	6	7.7	4.2	0.78	1.42	0.2034%	0.2600%	0.1430%
34	3,135	3	8.8	4.8	0.34	0.62	0.0957%	0.2800%	0.1540%
35	3,439	2	10.0	5.5	0.20	0.36	0.0582%	0.2900%	0.1595%
36	3,729	7	11.2	6.2	0.63	1.14	0.1877%	0.3000%	0.1650%
37	3,997	6	12.4	6.8	0.48	0.88	0.1501%	0.3100%	0.1705%
38	4,226	11	14.4	7.9	0.77	1.39	0.2603%	0.3400%	0.1870%
39	4,357	7	15.7	8.6	0.45	0.81	0.1607%	0.3600%	0.1980%
40	4,400	2	16.7	9.2	0.12	0.22	0.0455%	0.3800%	0.2090%
41	4,569	7	19.2	10.6	0.36	0.66	0.1532%	0.4200%	0.2310%
42	4,820	10	22.2	12.2	0.45	0.82	0.2075%	0.4600%	0.2530%
43	5,226	9	26.7	14.7	0.34	0.61	0.1722%	0.5100%	0.2805%
44	5,674	16	30.1	16.5	0.53	0.97	0.2820%	0.5300%	0.2915%
45	6,073	15	36.4	20.0	0.41	0.75	0.2470%	0.6000%	0.3300%
46	6,468	21	43.3	23.8	0.48	0.88	0.3247%	0.6700%	0.3685%
47	6,734	36	48.5	26.7	0.74	1.35	0.5346%	0.7200%	0.3960%
48	7,015	22	56.1	30.9	0.39	0.71	0.3136%	0.8000%	0.4400%
49	7,331	32	63.0	34.7	0.51	0.92	0.4365%	0.8600%	0.4730%
50	7,634	40	69.5	38.2	0.58	1.05	0.5240%	0.9100%	0.5005%
51	7,940	36	75.4	41.5	0.48	0.87	0.4534%	0.9500%	0.5225%
52	8,197	40	82.0	45.1	0.49	0.89	0.4880%	1.0000%	0.5500%
53	8,152	22	86.4	47.5	0.25	0.46	0.2699%	1.0600%	0.5830%
54	8,135	49	89.5	49.2	0.55	1.00	0.6023%	1.1000%	0.6050%
55	7,678	39	88.3	48.6	0.44	0.80	0.5079%	1.1500%	0.6325%
56	7,025	49	84.3	46.4	0.58	1.06	0.6975%	1.2000%	0.6600%
57	6,523	45	81.5	44.8	0.55	1.00	0.6899%	1.2500%	0.6875%
58	5,955	36	77.4	42.6	0.47	0.85	0.6046%	1.3000%	0.7150%
59	5,486	29	74.1	40.7	0.39	0.71	0.5286%	1.3500%	0.7425%
60	4,371	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
61	2,997	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
62	2,194	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
63	1,512	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
64	1,142	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
65	880	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
66	638	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
67	470	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
68	376	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
69	317	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70	247	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
71	189	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
72	146	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
73	119	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
74	111	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75	81	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
76	49	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
77	41	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
78	32	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
79	28	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80	22	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
81	17	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
82	14	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 2006 - 2010
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	14	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
84	10	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85	5	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	4	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
88	2	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	199,928	604	1,282.9	705.6	0.47	0.86	0.3021%	0.6417%	0.6417%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 4A

Calendar Years 2006 - 2010

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	4,540	0	0.8	0.6	0.00	0.00	0.0000%	0.0183%	0.0138%
25-29	11,444	3	7.6	5.1	0.40	0.59	0.0262%	0.0661%	0.0442%
30-34	13,568	7	15.6	11.7	0.45	0.60	0.0516%	0.1151%	0.0863%
35-39	19,279	15	33.7	25.3	0.45	0.59	0.0778%	0.1748%	0.1311%
40-44	24,098	39	77.6	58.2	0.50	0.67	0.1618%	0.3219%	0.2414%
45-49	32,432	106	164.5	123.4	0.64	0.86	0.3268%	0.5071%	0.3804%
50-54	39,283	199	272.1	204.1	0.73	0.98	0.5066%	0.6926%	0.5194%
55-59	37,879	202	323.3	242.4	0.62	0.83	0.5333%	0.8534%	0.6400%
60-64	17,100	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
65-69	4,404	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70-74	1,394	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75-79	455	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80-84	172	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85-89	39	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
90-94	6	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	206,091	571	895.1	670.7	0.64	0.85	0.2771%	0.4343%	0.3254%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 4A

Calendar Years 2006 - 2010

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
<25	5,516	0	2.3	1.3	0.00	0.00	0.0000%	0.0415%	0.0228%
25-29	12,828	3	12.9	7.1	0.23	0.42	0.0234%	0.1002%	0.0551%
30-34	14,781	13	33.5	18.5	0.39	0.70	0.0880%	0.2270%	0.1248%
35-39	19,747	33	63.6	35.0	0.52	0.94	0.1671%	0.3221%	0.1771%
40-44	24,689	44	114.8	63.1	0.38	0.70	0.1782%	0.4650%	0.2558%
45-49	33,620	126	247.4	136.1	0.51	0.93	0.3748%	0.7359%	0.4048%
50-54	40,058	187	402.8	221.5	0.46	0.84	0.4668%	1.0055%	0.5530%
55-59	32,667	198	405.6	223.1	0.49	0.89	0.6061%	1.2417%	0.6829%
60-64	12,214	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
65-69	2,680	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
70-74	811	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
75-79	230	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
80-84	76	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
85-89	14	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	199,928	604	1,282.9	705.6	0.47	0.86	0.3021%	0.6417%	0.3529%

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
2006	46,559	156	209.3	156.8	0.75	0.99	0.3351%	0.4495%	0.3369%
2007	46,697	184	204.7	153.4	0.90	1.20	0.3940%	0.4383%	0.3285%
2008	45,257	147	194.7	145.9	0.76	1.01	0.3248%	0.4302%	0.3223%
2009	45,321	106	192.5	144.2	0.55	0.73	0.2339%	0.4248%	0.3183%
2010	22,257	59	93.9	70.4	0.63	0.84	0.2651%	0.4219%	0.3161%
<i>Total</i>	<i>206,091</i>	<i>652</i>	<i>895.1</i>	<i>670.7</i>	<i>0.73</i>	<i>0.97</i>	<i>0.3164%</i>	<i>0.4343%</i>	<i>0.3254%</i>

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
2006	44,826	156	291.6	160.4	0.54	0.97	0.3480%	0.6505%	0.3578%
2007	45,011	163	289.6	159.3	0.56	1.02	0.3621%	0.6434%	0.3539%
2008	44,110	154	281.4	154.8	0.55	1.00	0.3491%	0.6380%	0.3509%
2009	44,258	158	281.8	155.0	0.56	1.02	0.3570%	0.6367%	0.3502%
2010	21,723	50	138.5	76.2	0.36	0.66	0.2302%	0.6376%	0.3507%
<i>Total</i>	<i>199,928</i>	<i>681</i>	<i>1,282.9</i>	<i>705.6</i>	<i>0.53</i>	<i>0.97</i>	<i>0.3406%</i>	<i>0.6417%</i>	<i>0.3529%</i>

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 5A

Calendar Years 2006 - 2010

Early Retirement Experience of Active General Employees with 4 -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%	2.9600%	1.0000%
22	762	0	22.6	7.6	0.00	0.00	0.0000%	2.9600%	1.0000%
23	1,166	0	34.5	11.7	0.00	0.00	0.0000%	2.9600%	1.0000%
24	1,610	4	47.7	16.1	0.08	0.25	0.2484%	2.9600%	1.0000%
25	1,956	5	57.9	19.6	0.09	0.26	0.2556%	2.9600%	1.0000%
26	2,154	10	63.7	21.5	0.16	0.46	0.4644%	2.9600%	1.0000%
27	2,365	9	70.0	23.7	0.13	0.38	0.3805%	2.9600%	1.0000%
28	2,435	10	62.1	24.4	0.16	0.41	0.4107%	2.5500%	1.0000%
29	2,535	32	63.6	38.0	0.50	0.84	1.2626%	2.5100%	1.5000%
30	2,549	25	63.5	38.2	0.39	0.65	0.9810%	2.4900%	1.5000%
31	2,609	24	64.2	39.1	0.37	0.61	0.9201%	2.4600%	1.5000%
32	2,682	22	66.0	40.2	0.33	0.55	0.8204%	2.4600%	1.5000%
33	2,724	33	53.1	40.9	0.62	0.81	1.2115%	1.9500%	1.5000%
34	2,858	18	54.6	42.9	0.33	0.42	0.6299%	1.9100%	1.5000%
35	3,097	34	58.5	46.4	0.58	0.73	1.0980%	1.8900%	1.5000%
36	3,251	40	61.4	48.8	0.65	0.82	1.2304%	1.8900%	1.5000%
37	3,358	35	63.1	50.4	0.55	0.69	1.0424%	1.8800%	1.5000%
38	3,315	24	62.0	49.7	0.39	0.48	0.7240%	1.8700%	1.5000%
39	3,166	28	59.5	31.7	0.47	0.88	0.8845%	1.8800%	1.0000%
40	3,032	36	51.2	30.3	0.70	1.19	1.1873%	1.6900%	1.0000%
41	3,005	22	50.8	30.1	0.43	0.73	0.7321%	1.6900%	1.0000%
42	2,980	34	50.1	29.8	0.68	1.14	1.1409%	1.6800%	1.0000%
43	3,014	25	50.9	30.1	0.49	0.83	0.8296%	1.6900%	1.0000%
44	2,993	30	50.6	29.9	0.59	1.00	1.0025%	1.6900%	1.0000%
45	3,054	22	34.2	30.5	0.64	0.72	0.7204%	1.1200%	1.0000%
46	3,127	20	34.7	31.3	0.58	0.64	0.6397%	1.1100%	1.0000%
47	3,103	23	34.1	31.0	0.67	0.74	0.7412%	1.1000%	1.0000%
48	3,067	23	33.1	30.7	0.69	0.75	0.7499%	1.0800%	1.0000%
49	3,088	24	33.7	30.9	0.71	0.78	0.7773%	1.0900%	1.0000%
50	3,110	18	29.5	31.1	0.61	0.58	0.5788%	0.9500%	1.0000%
51	3,144	27	30.2	31.4	0.89	0.86	0.8589%	0.9600%	1.0000%
52	3,143	23	29.9	31.4	0.77	0.73	0.7318%	0.9500%	1.0000%
53	3,160	21	30.0	31.6	0.70	0.66	0.6647%	0.9500%	1.0000%
54	3,043	19	29.5	30.4	0.64	0.62	0.6244%	0.9700%	1.0000%
55	2,927	24	68.2	29.3	0.35	0.82	0.8200%	2.3300%	1.0000%
56	2,794	21	65.1	27.9	0.32	0.75	0.7516%	2.3300%	1.0000%
57	2,676	26	62.4	26.8	0.42	0.97	0.9716%	2.3300%	1.0000%
58	2,601	30	60.6	26.0	0.50	1.15	1.1536%	2.3300%	1.0000%
59	2,563	77	211.4	76.9	0.36	1.00	3.0043%	8.2500%	3.0000%
60	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
61	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
62	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
63	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
64	0	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 5A

Calendar Years 2006 - 2010

Early Retirement Experience of Active General Employees with 4 -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	104,208	898	2,068.2	1,238.2	0.43	0.73	0.8617%	1.9847%	1.9847%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 5A

Calendar Years 2006 - 2010

Early Retirement Experience of Active General Employees with 4 -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%	4.0500%	1.0000%
22	953	0	38.6	9.5	0.00	0.00	0.0000%	4.0500%	1.0000%
23	1,417	3	56.4	14.2	0.05	0.21	0.2118%	3.9800%	1.0000%
24	1,855	5	74.0	18.6	0.07	0.27	0.2695%	3.9900%	1.0000%
25	2,121	12	82.3	21.2	0.15	0.57	0.5658%	3.8800%	1.0000%
26	2,448	20	90.8	24.5	0.22	0.82	0.8172%	3.7100%	1.0000%
27	2,624	20	92.9	26.2	0.22	0.76	0.7622%	3.5400%	1.0000%
28	2,765	25	95.4	27.7	0.26	0.90	0.9042%	3.4500%	1.0000%
29	2,871	38	101.0	43.1	0.38	0.88	1.3238%	3.5200%	1.5000%
30	2,894	30	102.2	43.4	0.29	0.69	1.0366%	3.5300%	1.5000%
31	2,919	36	102.7	43.8	0.35	0.82	1.2335%	3.5200%	1.5000%
32	2,872	41	100.5	43.1	0.41	0.95	1.4278%	3.5000%	1.5000%
33	2,862	43	80.4	42.9	0.53	1.00	1.5024%	2.8100%	1.5000%
34	2,920	37	82.3	43.8	0.45	0.84	1.2673%	2.8200%	1.5000%
35	3,065	43	87.0	46.0	0.49	0.94	1.4032%	2.8400%	1.5000%
36	3,195	47	90.4	47.9	0.52	0.98	1.4710%	2.8300%	1.5000%
37	3,232	48	90.8	48.5	0.53	0.99	1.4854%	2.8100%	1.5000%
38	3,148	32	72.1	47.2	0.44	0.68	1.0165%	2.2900%	1.5000%
39	3,072	44	69.7	30.7	0.63	1.43	1.4325%	2.2700%	1.0000%
40	2,938	35	50.5	29.4	0.69	1.19	1.1913%	1.7200%	1.0000%
41	2,952	33	49.0	29.5	0.67	1.12	1.1179%	1.6600%	1.0000%
42	3,000	22	49.2	30.0	0.45	0.73	0.7335%	1.6400%	1.0000%
43	3,109	21	52.2	31.1	0.40	0.68	0.6756%	1.6800%	1.0000%
44	3,205	31	52.6	32.1	0.59	0.97	0.9672%	1.6400%	1.0000%
45	3,347	26	54.9	33.5	0.47	0.78	0.7769%	1.6400%	1.0000%
46	3,407	21	50.1	34.1	0.42	0.62	0.6164%	1.4700%	1.0000%
47	3,392	26	50.2	33.9	0.52	0.77	0.7666%	1.4800%	1.0000%
48	3,400	17	44.5	34.0	0.38	0.50	0.5000%	1.3100%	1.0000%
49	3,436	33	44.7	34.4	0.74	0.96	0.9606%	1.3000%	1.0000%
50	3,388	17	44.0	33.9	0.39	0.50	0.5018%	1.3000%	1.0000%
51	3,296	23	41.2	33.0	0.56	0.70	0.6979%	1.2500%	1.0000%
52	3,198	24	39.7	32.0	0.61	0.75	0.7505%	1.2400%	1.0000%
53	3,034	21	36.7	30.3	0.57	0.69	0.6922%	1.2100%	1.0000%
54	2,973	22	35.7	29.7	0.62	0.74	0.7400%	1.2000%	1.0000%
55	2,764	23	64.4	27.6	0.36	0.83	0.8321%	2.3300%	1.0000%
56	2,480	17	57.8	24.8	0.29	0.69	0.6856%	2.3300%	1.0000%
57	2,255	26	52.5	22.6	0.49	1.15	1.1530%	2.3300%	1.0000%
58	2,100	21	48.9	21.0	0.43	1.00	1.0002%	2.3300%	1.0000%
59	1,966	59	184.2	59.0	0.32	1.00	3.0018%	9.3700%	3.0000%
60	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
61	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
62	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
63	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
64	0	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 5A

Calendar Years 2006 - 2010

Early Retirement Experience of Active General Employees with 4 -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	106,864	1,042	2,612.6	1,257.8	0.40	0.83	0.9751%	2.4448%	2.4448%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 5A

Calendar Years 2006 - 2010

Early Retirement Experience of Active General Employees with 4 -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	3,538	4	104.7	35.4	0.04	0.11	0.1131%	2.9600%	1.0000%
25-29	11,444	66	317.4	127.1	0.21	0.52	0.5767%	2.7731%	1.1107%
30-34	13,420	122	301.3	201.3	0.40	0.61	0.9091%	2.2451%	1.5000%
35-39	16,186	161	304.6	227.0	0.53	0.71	0.9947%	1.8819%	1.4022%
40-44	15,023	147	253.6	150.2	0.58	0.98	0.9785%	1.6880%	1.0000%
45-49	15,438	112	169.8	154.4	0.66	0.73	0.7255%	1.1000%	1.0000%
50-54	15,599	108	149.1	156.0	0.72	0.69	0.6924%	0.9559%	1.0000%
55-59	13,561	178	467.7	186.9	0.38	0.95	1.3126%	3.4489%	1.3780%
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	104,208	898	2,068.2	1,238.2	0.43	0.73	0.8617%	1.9847%	1.1882%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 5A

Calendar Years 2006 - 2010

Early Retirement Experience of Active General Employees with 4 -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	4,224	8	169.0	42.2	0.05	0.19	0.1894%	4.0002%	1.0000%
25-29	12,828	115	462.4	142.6	0.25	0.81	0.8965%	3.6048%	1.1119%
30-34	14,466	187	468.1	217.0	0.40	0.86	1.2927%	3.2363%	1.5000%
35-39	15,711	214	410.1	220.3	0.52	0.97	1.3621%	2.6102%	1.4022%
40-44	15,203	142	253.5	152.0	0.56	0.93	0.9340%	1.6675%	1.0000%
45-49	16,981	123	244.4	169.8	0.50	0.72	0.7244%	1.4391%	1.0000%
50-54	15,889	107	197.3	158.9	0.54	0.67	0.6734%	1.2417%	1.0000%
55-59	11,564	146	407.8	154.9	0.36	0.94	1.2626%	3.5266%	1.3399%
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	106,864	1,042	2,612.6	1,257.8	0.40	0.83	0.9751%	2.4448%	1.1770%

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 5B

Early Retirement Experience of Active General Employees with 4 -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
2006	23,814	215	470.4	283.7	0.46	0.76	0.9028%	1.9753%	1.1913%
2007	22,993	227	454.7	273.1	0.50	0.83	0.9873%	1.9775%	1.1877%
2008	23,108	242	459.9	274.4	0.53	0.88	1.0473%	1.9901%	1.1873%
2009	22,983	136	457.5	272.8	0.30	0.50	0.5917%	1.9905%	1.1871%
2010	11,310	78	225.7	134.2	0.35	0.58	0.6897%	1.9958%	1.1870%
<i>Total</i>	<i>104,208</i>	<i>898</i>	<i>2,068.2</i>	<i>1,238.2</i>	<i>0.43</i>	<i>0.73</i>	<i>0.8617%</i>	<i>1.9847%</i>	<i>1.1882%</i>

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

Table 5B

Early Retirement Experience of Active General Employees with 4 -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
2006	23,803	253	583.8	281.2	0.43	0.90	1.0629%	2.4528%	1.1812%
2007	23,299	243	567.8	273.5	0.43	0.89	1.0430%	2.4371%	1.1739%
2008	23,905	256	583.6	281.1	0.44	0.91	1.0709%	2.4414%	1.1761%
2009	24,033	200	587.8	282.6	0.34	0.71	0.8322%	2.4457%	1.1760%
2010	11,824	90	289.5	139.4	0.31	0.65	0.7612%	2.4486%	1.1788%
<i>Total</i>	<i>106,864</i>	<i>1,042</i>	<i>2,612.6</i>	<i>1,257.8</i>	<i>0.40</i>	<i>0.83</i>	<i>0.9751%</i>	<i>2.4448%</i>	<i>1.1770%</i>

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 6A

Calendar Years 2006 - 2010

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	3	0	0.1	0.0	0.00	0.00	0.0000%	3.8600%	1.5000%
32	5	0	0.2	0.1	0.00	0.00	0.0000%	3.8600%	1.5000%
33	25	1	0.6	0.4	1.55	2.72	4.0816%	2.6300%	1.5000%
34	116	1	3.1	1.7	0.33	0.57	0.8621%	2.6300%	1.5000%
35	241	8	6.3	3.6	1.26	2.21	3.3195%	2.6300%	1.5000%
36	384	7	10.1	5.8	0.69	1.22	1.8253%	2.6300%	1.5000%
37	574	15	15.1	8.6	0.99	1.74	2.6132%	2.6300%	1.5000%
38	821	15	21.6	12.3	0.69	1.22	1.8270%	2.6300%	1.5000%
39	1,074	15	28.2	16.1	0.53	0.93	1.3966%	2.6300%	1.5000%
40	1,295	18	34.0	19.4	0.53	0.93	1.3905%	2.6300%	1.5000%
41	1,534	29	40.3	23.0	0.72	1.26	1.8911%	2.6300%	1.5000%
42	1,790	26	47.1	26.8	0.55	0.97	1.4529%	2.6300%	1.5000%
43	2,056	25	54.1	30.8	0.46	0.81	1.2160%	2.6300%	1.5000%
44	2,402	37	63.2	36.0	0.59	1.03	1.5407%	2.6300%	1.5000%
45	2,749	41	72.3	41.2	0.57	0.99	1.4917%	2.6300%	1.5000%
46	3,100	46	81.5	46.5	0.56	0.99	1.4839%	2.6300%	1.5000%
47	3,432	59	90.3	68.6	0.65	0.86	1.7191%	2.6300%	2.0000%
48	3,734	76	98.2	74.7	0.77	1.02	2.0356%	2.6300%	2.0000%
49	3,980	78	104.7	79.6	0.75	0.98	1.9598%	2.6300%	2.0000%
50	4,225	88	111.1	84.5	0.79	1.04	2.0828%	2.6300%	2.0000%
51	4,422	105	116.3	132.6	0.90	0.79	2.3748%	2.6300%	3.0000%
52	4,701	166	123.6	188.0	1.34	0.88	3.5312%	2.6300%	4.0000%
53	4,816	204	126.6	216.7	1.61	0.94	4.2363%	2.6300%	4.5000%
54	4,795	219	126.1	239.8	1.74	0.91	4.5673%	2.6300%	5.0000%
55	4,660	258	179.9	256.3	1.43	1.01	5.5371%	3.8600%	5.5000%
56	4,481	279	173.0	268.9	1.61	1.04	6.2263%	3.8600%	6.0000%
57	4,139	323	159.7	331.1	2.02	0.98	7.8048%	3.8600%	8.0000%
58	3,746	324	144.6	374.6	2.24	0.87	8.6504%	3.8600%	10.0000%
59	3,404	596	467.3	510.5	1.28	1.17	17.5114%	13.7300%	15.0000%
60	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
61	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
62	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
63	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
64	0	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 2006 - 2010

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	72,696	3,059	2,499.2	3,098.3	1.22	0.99	4.2079%	3.4379%	3.4379%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 6A

Calendar Years 2006 - 2010

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	1	0	0.1	0.0	0.00	0.00	0.0000%	5.0600%	1.5000%
32	11	0	0.6	0.2	0.00	0.00	0.0000%	5.0600%	1.5000%
33	88	5	2.4	1.3	2.10	3.79	5.6818%	2.7100%	1.5000%
34	216	6	5.8	3.2	1.03	1.86	2.7842%	2.7100%	1.5000%
35	374	6	10.1	5.6	0.59	1.07	1.6043%	2.7100%	1.5000%
36	534	8	14.5	8.0	0.55	1.00	1.4981%	2.7100%	1.5000%
37	765	15	20.7	11.5	0.72	1.31	1.9608%	2.7100%	1.5000%
38	1,078	24	29.2	16.2	0.82	1.48	2.2263%	2.7100%	1.5000%
39	1,286	25	34.8	19.3	0.72	1.30	1.9448%	2.7100%	1.5000%
40	1,462	25	39.6	21.9	0.63	1.14	1.7100%	2.7100%	1.5000%
41	1,617	33	43.8	24.3	0.75	1.36	2.0408%	2.7100%	1.5000%
42	1,821	25	49.3	27.3	0.51	0.92	1.3732%	2.7100%	1.5000%
43	2,118	24	57.4	31.8	0.42	0.76	1.1334%	2.7100%	1.5000%
44	2,469	51	66.9	37.0	0.76	1.38	2.0660%	2.7100%	1.5000%
45	2,727	51	73.9	40.9	0.69	1.25	1.8705%	2.7100%	1.5000%
46	3,061	48	83.0	45.9	0.58	1.05	1.5681%	2.7100%	1.5000%
47	3,342	66	90.6	66.8	0.73	0.99	1.9749%	2.7100%	2.0000%
48	3,615	74	98.0	72.3	0.76	1.02	2.0473%	2.7100%	2.0000%
49	3,895	78	105.5	77.9	0.74	1.00	2.0028%	2.7100%	2.0000%
50	4,246	137	115.1	84.9	1.19	1.61	3.2269%	2.7100%	2.0000%
51	4,638	168	125.7	139.1	1.34	1.21	3.6223%	2.7100%	3.0000%
52	4,875	238	132.1	195.0	1.80	1.22	4.8821%	2.7100%	4.0000%
53	4,482	238	121.4	201.7	1.96	1.18	5.3107%	2.7100%	4.5000%
54	4,100	191	111.1	205.0	1.72	0.93	4.6585%	2.7100%	5.0000%
55	3,781	218	147.1	207.9	1.48	1.05	5.7664%	3.8900%	5.5000%
56	3,406	194	132.5	204.4	1.46	0.95	5.6958%	3.8900%	6.0000%
57	3,105	164	120.8	248.4	1.36	0.66	5.2818%	3.8900%	8.0000%
58	2,719	168	105.7	271.9	1.59	0.62	6.1799%	3.8900%	10.0000%
59	2,492	398	390.2	373.7	1.02	1.06	15.9743%	15.6600%	15.0000%
60	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
61	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
62	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
63	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
64	0	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 2006 - 2010

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	68,318	2,678	2,327.9	2,643.4	1.15	1.01	3.9199%	3.4074%	3.4074%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 6A

Calendar Years 2006 - 2010

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	148	2	4.0	2.2	0.50	0.90	1.3559%	2.6884%	1.5000%
35-39	3,094	60	81.4	46.4	0.74	1.29	1.9396%	2.6300%	1.5000%
40-44	9,075	135	238.7	136.1	0.57	0.99	1.4876%	2.6300%	1.5000%
45-49	16,994	300	446.9	310.6	0.67	0.97	1.7653%	2.6300%	1.8279%
50-54	22,958	782	603.8	861.6	1.30	0.91	3.4062%	2.6300%	3.7531%
55-59	20,428	1,780	1,124.4	1,741.3	1.58	1.02	8.7135%	5.5044%	8.5240%
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	72,696	3,059	2,499.2	3,098.3	1.22	0.99	4.2079%	3.4379%	4.2620%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 6A

Calendar Years 2006 - 2010

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	316	11	8.8	4.7	1.25	2.32	3.4865%	2.7994%	1.5000%
35-39	4,037	78	109.4	60.5	0.71	1.29	1.9324%	2.7100%	1.5000%
40-44	9,486	158	257.1	142.3	0.61	1.11	1.6657%	2.7100%	1.5000%
45-49	16,639	317	450.9	303.8	0.70	1.04	1.9052%	2.7100%	1.8261%
50-54	22,340	972	605.4	825.7	1.61	1.18	4.3509%	2.7100%	3.6961%
55-59	15,502	1,142	896.3	1,306.3	1.27	0.87	7.3670%	5.7817%	8.4267%
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	68,318	2,678	2,327.9	2,643.4	1.15	1.01	3.9199%	3.4074%	3.8693%

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
2006	17,290	610	598.6	747.2	1.02	0.82	3.5281%	3.4624%	4.3215%
2007	16,882	1,155	579.7	714.1	1.99	1.62	6.8416%	3.4337%	4.2300%
2008	15,812	512	536.6	659.1	0.95	0.78	3.2380%	3.3934%	4.1686%
2009	15,377	523	528.0	656.4	0.99	0.80	3.4012%	3.4337%	4.2689%
2010	7,335	259	256.3	321.4	1.01	0.81	3.5310%	3.4941%	4.3821%
<i>Total</i>	<i>72,696</i>	<i>3,059</i>	<i>2,499.2</i>	<i>3,098.3</i>	<i>1.22</i>	<i>0.99</i>	<i>4.2079%</i>	<i>3.4379%</i>	<i>4.2620%</i>

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
2006	16,388	567	556.4	624.7	1.02	0.91	3.4598%	3.3954%	3.8117%
2007	15,803	972	532.2	598.7	1.83	1.62	6.1507%	3.3679%	3.7884%
2008	14,880	446	506.3	571.3	0.88	0.78	2.9973%	3.4027%	3.8391%
2009	14,425	447	494.2	570.3	0.90	0.78	3.0988%	3.4261%	3.9533%
2010	6,822	246	238.6	278.5	1.03	0.88	3.6062%	3.4983%	4.0828%
Total	68,318	2,678	2,327.9	2,643.4	1.15	1.01	3.9199%	3.4074%	3.8693%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 7A

Calendar Years 2006 - 2010

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%	30.0000%	20.0000%
46	0	0	0.0	0.0	0.00	0.00	0.0000%	30.0000%	20.0000%
47	0	0	0.0	0.0	0.00	0.00	0.0000%	30.0000%	20.0000%
48	0	0	0.0	0.0	0.00	0.00	0.0000%	30.0000%	20.0000%
49	0	0	0.0	0.0	0.00	0.00	0.0000%	30.0000%	20.0000%
50	0	0	0.0	0.0	0.00	0.00	0.0000%	30.0000%	20.0000%
51	17	3	5.1	3.4	0.59	0.88	17.6471%	30.0000%	20.0000%
52	61	13	18.2	13.6	0.72	0.96	21.4876%	30.0000%	22.5000%
53	215	55	64.4	53.6	0.85	1.03	25.6410%	30.0000%	25.0000%
54	434	123	130.2	112.8	0.94	1.09	28.3410%	30.0000%	26.0000%
55	578	143	173.3	155.9	0.83	0.92	24.7619%	30.0000%	27.0000%
56	671	134	201.2	187.7	0.67	0.71	19.9851%	30.0000%	28.0000%
57	836	258	250.7	250.7	1.03	1.03	30.8797%	30.0000%	30.0000%
58	892	234	267.5	267.5	0.87	0.87	26.2479%	30.0000%	30.0000%
59	915	278	274.5	274.5	1.01	1.01	30.3825%	30.0000%	30.0000%
60	5,151	1,302	1,287.8	1,287.8	1.01	1.01	25.0049%	25.0000%	25.0000%
61	3,731	664	932.8	746.2	0.71	0.89	17.4752%	25.0000%	20.0000%
62	2,909	787	960.0	727.3	0.82	1.08	26.5383%	33.0000%	25.0000%
63	2,060	398	453.1	411.9	0.88	0.97	18.9852%	22.0000%	20.0000%
64	1,529	269	336.3	305.7	0.80	0.88	17.2064%	22.0000%	20.0000%
65	1,253	263	413.5	313.3	0.64	0.84	20.3512%	33.0000%	25.0000%
66	968	211	212.9	193.5	0.99	1.09	21.1886%	22.0000%	20.0000%
67	731	146	160.7	146.1	0.91	1.00	19.7125%	22.0000%	20.0000%
68	577	113	126.9	115.4	0.89	0.98	19.2374%	22.0000%	20.0000%
69	445	82	97.8	88.9	0.84	0.92	18.4477%	22.0000%	20.0000%
70	365	66	80.2	72.9	0.82	0.91	17.8326%	22.0000%	20.0000%
71	305	42	67.0	60.9	0.63	0.69	13.1363%	22.0000%	20.0000%
72	250	45	54.9	49.9	0.82	0.90	17.6353%	22.0000%	20.0000%
73	193	40	42.5	38.6	0.94	1.04	19.1710%	22.0000%	20.0000%
74	144	31	31.7	28.8	0.98	1.08	20.8333%	22.0000%	20.0000%
75	119	30	26.1	23.7	1.15	1.27	25.3165%	22.0000%	20.0000%
76	95	21	20.8	18.9	1.01	1.11	22.2222%	22.0000%	20.0000%
77	75	7	16.5	15.0	0.42	0.47	9.3333%	22.0000%	20.0000%
78	74	16	16.3	14.8	0.98	1.08	21.6216%	22.0000%	20.0000%
79	55	7	12.0	10.9	0.58	0.64	12.8440%	22.0000%	20.0000%
80	50	8	50.0	50.0	0.16	0.16	16.0000%	100.0000%	100.0000%
81	39	10	38.5	38.5	0.26	0.26	25.9740%	100.0000%	100.0000%
82	33	8	32.5	32.5	0.25	0.25	21.5385%	100.0000%	100.0000%
83	23	3	23.0	23.0	0.13	0.13	13.0435%	100.0000%	100.0000%
84	23	7	22.5	22.5	0.31	0.31	31.1111%	100.0000%	100.0000%
85	13	1	12.5	12.5	0.08	0.08	8.0000%	100.0000%	100.0000%
86	11	0	10.5	10.5	0.00	0.00	0.0000%	100.0000%	100.0000%
87	9	0	8.5	8.5	0.00	0.00	0.0000%	100.0000%	100.0000%
88	6	2	5.5	5.5	0.36	0.36	36.3636%	100.0000%	100.0000%
89	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
90	2	1	1.5	1.5	0.67	0.67	66.6667%	100.0000%	100.0000%
91	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
92	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
93	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
94	1	0	0.5	0.5	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%
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%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 7A

Calendar Years 2006 - 2010

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
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%
<i>Total</i>	25,849	5,821	6,943.8	6,199.6	0.84	0.94	22.5192%	26.8627%	26.8627%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 7A

Calendar Years 2006 - 2010

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%	30.0000%	20.0000%
46	0	0	0.0	0.0	0.00	0.00	0.0000%	30.0000%	20.0000%
47	0	0	0.0	0.0	0.00	0.00	0.0000%	30.0000%	20.0000%
48	0	0	0.0	0.0	0.00	0.00	0.0000%	30.0000%	20.0000%
49	0	0	0.0	0.0	0.00	0.00	0.0000%	30.0000%	20.0000%
50	0	0	0.0	0.0	0.00	0.00	0.0000%	30.0000%	20.0000%
51	0	0	0.0	0.0	0.00	0.00	0.0000%	30.0000%	22.5000%
52	124	31	37.2	27.9	0.83	1.11	25.0000%	30.0000%	22.5000%
53	636	149	190.8	143.1	0.78	1.04	23.4277%	30.0000%	22.5000%
54	1,062	247	318.6	239.0	0.78	1.03	23.2580%	30.0000%	22.5000%
55	1,134	243	340.1	255.0	0.71	0.95	21.4380%	30.0000%	22.5000%
56	1,140	201	341.9	256.4	0.59	0.78	17.6393%	30.0000%	22.5000%
57	1,163	246	348.9	261.7	0.71	0.94	21.1522%	30.0000%	22.5000%
58	1,137	246	341.0	255.7	0.72	0.96	21.6454%	30.0000%	22.5000%
59	1,029	241	308.7	231.5	0.78	1.04	23.4208%	30.0000%	22.5000%
60	4,080	1,165	1,019.9	1,019.9	1.14	1.14	28.1407%	25.0000%	25.0000%
61	2,778	535	694.4	555.5	0.77	0.96	18.7219%	25.0000%	20.0000%
62	2,053	523	677.3	513.1	0.77	1.02	24.7016%	33.0000%	25.0000%
63	1,420	284	312.4	284.0	0.91	1.00	19.6479%	22.0000%	20.0000%
64	1,074	221	236.3	214.8	0.94	1.03	20.2048%	22.0000%	20.0000%
65	833	219	274.7	208.1	0.80	1.05	25.3453%	33.0000%	25.0000%
66	600	150	131.9	119.9	1.14	1.25	24.5204%	22.0000%	20.0000%
67	440	97	96.7	87.9	1.00	1.10	21.1604%	22.0000%	20.0000%
68	352	59	77.3	70.3	0.76	0.84	16.2162%	22.0000%	20.0000%
69	292	60	64.2	58.4	0.93	1.03	20.2055%	22.0000%	20.0000%
70	224	51	49.2	44.7	1.04	1.14	22.8188%	22.0000%	20.0000%
71	177	39	38.8	35.3	1.00	1.10	21.5297%	22.0000%	20.0000%
72	136	22	29.8	27.1	0.74	0.81	16.2362%	22.0000%	20.0000%
73	115	15	25.2	22.9	0.60	0.66	13.1004%	22.0000%	20.0000%
74	105	23	23.0	20.9	1.00	1.10	22.0096%	22.0000%	20.0000%
75	80	24	17.5	15.9	1.37	1.51	30.1887%	22.0000%	20.0000%
76	49	7	10.7	9.7	0.66	0.72	14.4330%	22.0000%	20.0000%
77	41	11	9.0	8.2	1.22	1.34	24.3902%	22.0000%	20.0000%
78	32	9	6.9	6.3	1.30	1.43	28.5714%	22.0000%	20.0000%
79	25	8	5.4	4.9	1.48	1.63	32.6531%	22.0000%	20.0000%
80	20	5	20.0	20.0	0.25	0.25	25.0000%	100.0000%	100.0000%
81	17	3	17.0	17.0	0.18	0.18	17.6471%	100.0000%	100.0000%
82	14	2	13.5	13.5	0.15	0.15	14.8148%	100.0000%	100.0000%
83	12	5	12.0	12.0	0.42	0.42	41.6667%	100.0000%	100.0000%
84	6	3	5.5	5.5	0.55	0.55	54.5455%	100.0000%	100.0000%
85	4	0	4.0	4.0	0.00	0.00	0.0000%	100.0000%	100.0000%
86	4	0	4.0	4.0	0.00	0.00	0.0000%	100.0000%	100.0000%
87	4	1	3.5	3.5	0.29	0.29	28.5714%	100.0000%	100.0000%
88	2	1	1.5	1.5	0.67	0.67	66.6667%	100.0000%	100.0000%
89	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
90	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
91	0	0	0.0	0.0	0.00	0.00	0.0000%	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%
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%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 7A

Calendar Years 2006 - 2010

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
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%
<i>Total</i>	22,403	5,146	6,108.7	5,079.1	0.84	1.01	22.9707%	27.2678%	27.2678%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 7A

Calendar Years 2006 - 2010

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	726	194	217.8	183.5	0.89	1.06	26.7218%	30.0000%	25.2724%
55-59	3,890	1,047	1,167.0	1,136.3	0.90	0.92	26.9152%	30.0000%	29.2099%
60-64	15,379	3,366	3,969.8	3,478.8	0.85	0.97	21.8870%	25.8133%	22.6205%
65-69	3,973	797	1,011.8	857.2	0.79	0.93	20.0629%	25.4696%	21.5771%
70-74	1,256	216	276.2	251.1	0.78	0.86	17.2043%	22.0000%	20.0000%
75-79	417	81	91.6	83.3	0.88	0.97	19.4478%	22.0000%	20.0000%
80-84	167	35	166.5	166.5	0.21	0.21	21.0210%	100.0000%	100.0000%
85-89	38	3	38.0	38.0	0.08	0.08	7.8947%	100.0000%	100.0000%
90-94	5	1	5.0	5.0	0.20	0.20	20.0000%	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	25,849	5,740	6,943.8	6,199.6	0.83	0.93	22.2059%	26.8627%	23.9839%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 7A

Calendar Years 2006 - 2010

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	1,822	427	546.6	410.0	0.78	1.04	23.4358%	30.0000%	22.5000%
55-59	5,602	1,177	1,680.5	1,260.3	0.70	0.93	21.0122%	30.0000%	22.5000%
60-64	11,404	2,671	2,940.3	2,587.3	0.91	1.03	23.4226%	25.7838%	22.6886%
65-69	2,515	567	644.9	544.6	0.88	1.04	22.5447%	25.6412%	21.6551%
70-74	755	149	166.0	150.9	0.90	0.99	19.7482%	22.0000%	20.0000%
75-79	225	58	49.5	45.0	1.17	1.29	25.7778%	22.0000%	20.0000%
80-84	68	18	68.0	68.0	0.26	0.26	26.4706%	100.0000%	100.0000%
85-89	13	2	13.0	13.0	0.15	0.15	15.3846%	100.0000%	100.0000%
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	22,403	5,069	6,108.7	5,079.1	0.83	1.00	22.6269%	27.2678%	22.6721%

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
2006	4,685	720	1,264.1	1,131.8	0.57	0.64	15.3682%	26.9808%	24.1573%
2007	6,103	1,973	1,631.4	1,475.8	1.21	1.34	32.3284%	26.7310%	24.1813%
2008	5,598	905	1,501.7	1,337.7	0.60	0.68	16.1665%	26.8255%	23.8966%
2009	6,198	1,159	1,675.0	1,481.0	0.69	0.78	18.6996%	27.0242%	23.8941%
2010	3,265	983	871.7	773.4	1.13	1.27	30.1072%	26.6971%	23.6861%
<i>Total</i>	<i>25,849</i>	<i>5,740</i>	<i>6,943.8</i>	<i>6,199.6</i>	<i>0.83</i>	<i>0.93</i>	<i>22.2059%</i>	<i>26.8627%</i>	<i>23.9839%</i>

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
2006	4,125	643	1,124.2	932.7	0.57	0.69	15.5879%	27.2536%	22.6103%
2007	5,380	1,823	1,473.6	1,226.0	1.24	1.49	33.8848%	27.3909%	22.7872%
2008	4,770	793	1,296.4	1,079.0	0.61	0.73	16.6247%	27.1778%	22.6205%
2009	5,295	966	1,449.2	1,204.1	0.67	0.80	18.2436%	27.3694%	22.7403%
2010	2,833	844	765.2	637.4	1.10	1.32	29.7970%	27.0164%	22.5026%
<i>Total</i>	<i>22,403</i>	<i>5,069</i>	<i>6,108.7</i>	<i>5,079.1</i>	<i>0.83</i>	<i>1.00</i>	<i>22.6269%</i>	<i>27.2678%</i>	<i>22.6721%</i>

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
2006	8,810	1,363	2,388.0	2,064.4	0.57	0.66	15.4711%	27.1056%	23.4330%
2007	11,483	3,796	3,105.0	2,701.7	1.22	1.41	33.0576%	27.0400%	23.5281%
2008	10,368	1,698	2,798.0	2,416.7	0.61	0.70	16.3773%	26.9869%	23.3095%
2009	11,493	2,125	3,124.0	2,685.1	0.68	0.79	18.4895%	27.1818%	23.3625%
2010	6,098	1,827	1,637.0	1,410.7	1.12	1.30	29.9631%	26.8471%	23.1364%
<i>Total</i>	<i>48,252</i>	<i>10,809</i>	<i>13,052.0</i>	<i>11,278.7</i>	<i>0.83</i>	<i>0.96</i>	<i>22.4014%</i>	<i>27.0499%</i>	<i>23.3748%</i>

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 8A

Calendar Years 2006 - 2010

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
18	17	2	2.0	3.5	0.99	0.58	11.7647%	11.8500%	20.3894%
19	123	29	14.5	24.6	2.00	1.18	23.5772%	11.8124%	20.0045%
20	312	68	36.4	58.4	1.87	1.16	21.7949%	11.6780%	18.7313%
21	550	95	61.3	92.5	1.55	1.03	17.2727%	11.1495%	16.8139%
22	762	101	80.5	114.5	1.25	0.88	13.2546%	10.5707%	15.0249%
23	1,166	170	114.9	163.2	1.48	1.04	14.5798%	9.8563%	13.9945%
24	1,610	181	154.2	204.9	1.17	0.88	11.2422%	9.5777%	12.7282%
25	1,956	210	175.7	206.9	1.20	1.02	10.7362%	8.9836%	10.5754%
26	2,154	189	176.6	193.9	1.07	0.97	8.7764%	8.2008%	9.0026%
27	2,365	198	179.3	188.9	1.10	1.05	8.3721%	7.5797%	7.9890%
28	2,435	162	166.0	172.6	0.98	0.94	6.6530%	6.8183%	7.0868%
29	2,535	165	158.7	161.8	1.04	1.02	6.5102%	6.2630%	6.3823%
30	2,549	140	145.9	143.6	0.96	0.98	5.4934%	5.7257%	5.6340%
31	2,609	142	140.3	135.9	1.01	1.04	5.4437%	5.3798%	5.2112%
32	2,682	124	138.6	133.9	0.89	0.93	4.6243%	5.1702%	4.9943%
33	2,724	105	127.5	123.9	0.82	0.85	3.8546%	4.6816%	4.5491%
34	2,858	126	130.1	125.6	0.97	1.00	4.4094%	4.5534%	4.3958%
35	3,097	129	136.5	131.5	0.94	0.98	4.1660%	4.4092%	4.2453%
36	3,251	125	137.0	127.8	0.91	0.98	3.8450%	4.2153%	3.9313%
37	3,358	105	139.3	128.9	0.75	0.81	3.1273%	4.1486%	3.8406%
38	3,315	108	136.6	125.1	0.79	0.86	3.2579%	4.1207%	3.7737%
39	3,166	133	129.8	117.9	1.02	1.13	4.2015%	4.0998%	3.7245%
40	3,032	95	120.8	110.9	0.79	0.86	3.1332%	3.9857%	3.6562%
41	3,005	92	119.8	109.7	0.77	0.84	3.0616%	3.9851%	3.6495%
42	2,980	112	118.1	107.3	0.95	1.04	3.7584%	3.9643%	3.6020%
43	3,014	117	118.9	107.7	0.98	1.09	3.8825%	3.9444%	3.5746%
44	2,993	97	122.0	111.3	0.80	0.87	3.2414%	4.0764%	3.7188%
45	3,054	117	116.3	108.3	1.01	1.08	3.8310%	3.8067%	3.5463%
46	3,127	88	119.9	111.7	0.73	0.79	2.8146%	3.8358%	3.5727%
47	3,103	110	116.8	107.5	0.94	1.02	3.5450%	3.7637%	3.4630%
48	3,067	100	113.9	103.8	0.88	0.96	3.2605%	3.7131%	3.3841%
49	3,088	83	113.4	102.6	0.73	0.81	2.6883%	3.6723%	3.3219%
50	3,110	82	105.4	95.2	0.78	0.86	2.6367%	3.3894%	3.0625%
51	3,144	72	106.6	96.6	0.68	0.75	2.2904%	3.3913%	3.0723%
52	3,143	78	107.6	97.7	0.73	0.80	2.4817%	3.4230%	3.1092%
53	3,160	97	107.6	97.7	0.90	0.99	3.0701%	3.4058%	3.0914%
54	3,043	79	102.1	92.2	0.77	0.86	2.5961%	3.3567%	3.0289%
55	2,927	81	114.9	96.0	0.70	0.84	2.7673%	3.9271%	3.2808%
56	2,794	67	108.6	90.6	0.62	0.74	2.3980%	3.8877%	3.2439%
57	2,676	80	103.4	85.9	0.77	0.93	2.9895%	3.8631%	3.2103%
58	2,601	85	100.0	83.1	0.85	1.02	3.2686%	3.8456%	3.1962%
59	2,563	68	162.1	84.0	0.42	0.81	2.6531%	6.3259%	3.2793%
60	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	105,210	4,607	4,980.3	4,879.6	0.93	0.94	4.3789%	4.7337%	4.6379%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 8A

Calendar Years 2006 - 2010

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
17	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
18	31	6	3.4	6.7	1.74	0.90	19.3548%	11.1284%	21.4869%
19	188	54	20.7	38.5	2.61	1.40	28.8000%	11.0463%	20.5323%
20	412	100	44.8	75.0	2.23	1.33	24.3013%	10.8863%	18.2211%
21	660	125	70.8	110.5	1.77	1.13	18.9538%	10.7380%	16.7477%
22	953	162	99.9	133.9	1.62	1.21	17.0079%	10.4839%	14.0611%
23	1,417	224	135.4	181.9	1.65	1.23	15.8136%	9.5559%	12.8442%
24	1,855	264	167.4	212.5	1.58	1.24	14.2318%	9.0221%	11.4565%
25	2,121	225	180.5	214.1	1.25	1.05	10.6082%	8.5085%	10.0955%
26	2,448	239	198.4	227.9	1.20	1.05	9.7651%	8.1068%	9.3129%
27	2,624	223	198.4	219.8	1.12	1.01	8.4985%	7.5596%	8.3771%
28	2,765	222	193.3	200.2	1.15	1.11	8.0289%	6.9924%	7.2407%
29	2,871	216	186.9	192.1	1.16	1.12	7.5248%	6.5105%	6.6918%
30	2,894	189	178.6	185.0	1.06	1.02	6.5308%	6.1720%	6.3939%
31	2,919	198	172.0	170.8	1.15	1.16	6.7843%	5.8925%	5.8527%
32	2,872	175	161.9	158.9	1.08	1.10	6.0944%	5.6381%	5.5354%
33	2,862	145	146.3	144.8	0.99	1.00	5.0664%	5.1134%	5.0593%
34	2,920	157	149.2	143.6	1.05	1.09	5.3776%	5.1089%	4.9195%
35	3,065	158	153.1	141.3	1.03	1.12	5.1558%	4.9946%	4.6107%
36	3,195	149	158.6	145.2	0.94	1.03	4.6635%	4.9642%	4.5434%
37	3,232	142	158.9	143.6	0.89	0.99	4.3942%	4.9175%	4.4434%
38	3,148	125	147.9	133.2	0.84	0.94	3.9708%	4.6993%	4.2320%
39	3,072	152	149.6	133.8	1.02	1.14	4.9487%	4.8697%	4.3556%
40	2,938	118	137.7	121.2	0.86	0.97	4.0163%	4.6877%	4.1255%
41	2,952	138	137.7	121.6	1.00	1.14	4.6748%	4.6630%	4.1180%
42	3,000	124	138.0	121.7	0.90	1.02	4.1340%	4.6016%	4.0558%
43	3,109	147	140.1	124.1	1.05	1.18	4.7290%	4.5067%	3.9914%
44	3,205	133	142.9	126.9	0.93	1.05	4.1498%	4.4597%	3.9586%
45	3,347	147	147.7	130.8	1.00	1.12	4.3926%	4.4136%	3.9078%
46	3,407	122	146.3	129.8	0.83	0.94	3.5809%	4.2947%	3.8090%
47	3,392	135	146.3	129.2	0.92	1.04	3.9805%	4.3123%	3.8099%
48	3,400	108	142.8	126.4	0.76	0.85	3.1765%	4.2007%	3.7163%
49	3,436	115	138.9	122.6	0.83	0.94	3.3474%	4.0428%	3.5698%
50	3,388	132	137.2	121.3	0.96	1.09	3.8961%	4.0503%	3.5805%
51	3,296	124	126.2	111.4	0.98	1.11	3.7627%	3.8306%	3.3816%
52	3,198	111	125.8	111.8	0.88	0.99	3.4709%	3.9351%	3.4951%
53	3,034	83	117.7	103.8	0.71	0.80	2.7357%	3.8802%	3.4216%
54	2,973	106	112.3	99.0	0.94	1.07	3.5654%	3.7768%	3.3300%
55	2,764	92	112.1	97.6	0.82	0.94	3.3285%	4.0549%	3.5318%
56	2,480	83	100.8	88.0	0.82	0.94	3.3474%	4.0667%	3.5475%
57	2,255	56	91.1	79.4	0.61	0.71	2.4834%	4.0416%	3.5218%
58	2,100	65	82.4	71.7	0.79	0.91	3.0960%	3.9225%	3.4161%
59	1,966	59	133.1	63.8	0.44	0.92	3.0018%	6.7712%	3.2469%
60	0	0	0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	108,153	5,848	5,633.1	5,515.4	1.04	1.06	5.4072%	5.2085%	5.0996%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 8A Calendar Years 2006 - 2010
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	4,540	646	464.0	661.6	1.39	0.98	14.2291%	10.2197%	14.5722%
25-29	11,444	924	856.3	924.0	1.08	1.00	8.0741%	7.4829%	8.0740%
30-34	13,420	637	682.5	663.0	0.93	0.96	4.7466%	5.0859%	4.9401%
35-39	16,186	600	679.2	631.2	0.88	0.95	3.7070%	4.1966%	3.8998%
40-44	15,023	513	599.6	546.9	0.86	0.94	3.4148%	3.9911%	3.6402%
45-49	15,438	498	580.2	533.8	0.86	0.93	3.2258%	3.7585%	3.4578%
50-54	15,599	408	529.4	479.4	0.77	0.85	2.6156%	3.3935%	3.0732%
55-59	13,561	381	589.1	439.7	0.65	0.87	2.8096%	4.3441%	3.2428%
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	105,210	4,607	4,980.3	4,879.6	0.93	0.94	4.3789%	4.7337%	4.6379%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 8A Calendar Years 2006 - 2010
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	5,514	935	542.4	759.0	1.72	1.23	16.9584%	9.8368%	13.7658%
25-29	12,828	1,125	957.5	1,054.2	1.17	1.07	8.7699%	7.4639%	8.2177%
30-34	14,466	864	808.0	803.2	1.07	1.08	5.9728%	5.5856%	5.5527%
35-39	15,711	726	768.1	697.1	0.95	1.04	4.6211%	4.8890%	4.4369%
40-44	15,203	660	696.4	615.4	0.95	1.07	4.3412%	4.5809%	4.0477%
45-49	16,981	627	722.0	638.8	0.87	0.98	3.6925%	4.2519%	3.7617%
50-54	15,889	556	619.3	547.3	0.90	1.02	3.4994%	3.8979%	3.4448%
55-59	11,564	355	519.5	400.5	0.68	0.89	3.0700%	4.4925%	3.4638%
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	108,153	5,848	5,633.1	5,515.4	1.04	1.06	5.4072%	5.2085%	5.0996%

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
2006	24,061	1,082	1,188.4	1,194.6	0.91	0.91	4.4969%	4.9392%	4.9649%
2007	23,222	983	1,087.9	1,062.2	0.90	0.93	4.2331%	4.6848%	4.5740%
2008	23,330	1,080	1,101.1	1,077.3	0.98	1.00	4.6292%	4.7197%	4.6175%
2009	23,206	1,038	1,097.9	1,068.6	0.95	0.97	4.4730%	4.7313%	4.6047%
2010	11,391	424	505.0	477.0	0.84	0.89	3.7222%	4.4332%	4.1871%
<i>Total</i>	<i>105,210</i>	<i>4,607</i>	<i>4,980.3</i>	<i>4,879.6</i>	<i>0.93</i>	<i>0.94</i>	<i>4.3789%</i>	<i>4.7337%</i>	<i>4.6379%</i>

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
2006	24,109	1,318	1,315.0	1,354.0	1.00	0.97	5.4668%	5.4545%	5.6162%
2007	23,592	1,322	1,210.8	1,168.4	1.09	1.13	5.6036%	5.1323%	4.9523%
2008	24,214	1,427	1,262.9	1,233.9	1.13	1.16	5.8933%	5.2156%	5.0959%
2009	24,301	1,280	1,263.1	1,213.6	1.01	1.05	5.2673%	5.1977%	4.9941%
2010	11,937	501	581.3	545.5	0.86	0.92	4.1970%	4.8697%	4.5699%
<i>Total</i>	<i>108,153</i>	<i>5,848</i>	<i>5,633.1</i>	<i>5,515.4</i>	<i>1.04</i>	<i>1.06</i>	<i>5.4072%</i>	<i>5.2085%</i>	<i>5.0996%</i>

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 9A

Calendar Years 2006 - 2010

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	61	1	0.0	1.2	81.97	0.82	1.6393%	0.0200%	2.0000%
1	181	5	0.4	3.6	11.51	1.38	2.7624%	0.2400%	2.0000%
2	231	1	0.6	2.3	1.80	0.43	0.4329%	0.2400%	1.0000%
3	168	0	0.4	1.7	0.00	0.00	0.0000%	0.2400%	1.0000%
4	197	0	0.5	2.0	0.00	0.00	0.0000%	0.2400%	1.0000%
5	126	0	0.3	0.6	0.00	0.00	0.0000%	0.2400%	0.5000%
6	180	3	0.4	0.8	6.94	3.70	1.6667%	0.2400%	0.4500%
7	133	0	0.3	0.5	0.00	0.00	0.0000%	0.2400%	0.4000%
8	159	1	0.4	0.6	2.62	1.80	0.6289%	0.2400%	0.3500%
9	130	0	0.3	0.4	0.00	0.00	0.0000%	0.2400%	0.3000%
10	1,976	8	4.7	4.9	1.69	1.62	0.4049%	0.2400%	0.2500%
<i>Total</i>	<i>3,542</i>	<i>19</i>	<i>8.4</i>	<i>18.7</i>	<i>2.27</i>	<i>1.02</i>	<i>0.5364%</i>	<i>0.2362%</i>	<i>0.0000%</i>

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 9B

Calendar Years 2006 - 2010

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%	2.2700%	2.2700%
50	0	0	0.0	0.0	0.00	0.00	0.0000%	2.2700%	2.2700%
51	0	0	0.0	0.0	0.00	0.00	0.0000%	2.2700%	2.2700%
52	0	0	0.0	0.0	0.00	0.00	0.0000%	2.2700%	2.2700%
53	3	0	0.1	0.1	0.00	0.00	0.0000%	2.2700%	2.2700%
54	8	0	0.2	0.2	0.00	0.00	0.0000%	2.2700%	2.2700%
55	10	0	0.2	0.2	0.00	0.00	0.0000%	2.2700%	2.2700%
56	14	0	0.3	0.3	0.00	0.00	0.0000%	2.2700%	2.2700%
57	22	0	0.5	0.5	0.00	0.00	0.0000%	2.2700%	2.2700%
58	25	1	0.6	0.6	1.76	1.76	4.0000%	2.2700%	2.2700%
59	24	3	0.5	2.4	5.51	1.25	12.5000%	2.2700%	10.0000%
60	251	14	5.7	12.6	2.46	1.12	5.5777%	2.2700%	5.0000%
61	226	6	5.1	11.3	1.17	0.53	2.6549%	2.2700%	5.0000%
62	213	19	4.8	10.7	3.93	1.78	8.9202%	2.2700%	5.0000%
63	182	8	4.1	9.1	1.94	0.88	4.3956%	2.2700%	5.0000%
64	146	12	3.3	7.3	3.62	1.64	8.2192%	2.2700%	5.0000%
65	126	11	2.9	12.6	3.85	0.87	8.7302%	2.2700%	10.0000%
66	116	12	2.6	11.6	4.56	1.03	10.3448%	2.2700%	10.0000%
67	111	20	2.5	11.1	7.94	1.80	18.0180%	2.2700%	10.0000%
68	94	12	2.1	9.4	5.62	1.28	12.7660%	2.2700%	10.0000%
69	89	36	2.0	44.5	17.82	0.81	40.4494%	2.2700%	50.0000%
70	46	38	46.0	46.0	0.83	0.83	82.6087%	100.0000%	100.0000%
71	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
72	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
73	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
74	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
75	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
76	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
77	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
78	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
79	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
80	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	1,711	192	88.7	195.4	2.17	0.98	11.2215%	5.1831%	0.0000%

Table 9B

Calendar Years 2006 - 2010

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	801	4	1.9	4.0	2.08	1.00	0.4994%	0.2400%	0.5000%
50 to 59	2162	26	5.2	25.9	5.01	1.00	1.2026%	0.2400%	1.2000%
Total	2,963	30	7.1	29.9	4.22	1.00	1.0125%	0.2400%	0.0000%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 10A

Calendar Years 2006 - 2010

Service	Life Years Exposed	Withdrawal Experience of Legislators					Males and Females				
		Number of Withdrawals			Ratio of Actual to		Withdrawal Rate				
		Actual	Expected	Recommended	Expected	Recommended	Actual	Expected	Recommended		
0	56	3	0.0	2.8	0.00	1.07	5.3571%	0.0000%	5.0000%		
1	71	3	2.7	3.5	1.10	0.85	4.2553%	3.8600%	5.0000%		
2	59	4	2.3	3.0	1.76	1.36	6.7797%	3.8600%	5.0000%		
3	38	4	1.5	3.8	2.73	1.05	10.5263%	3.8600%	10.0000%		
4	19	1	0.7	1.0	1.36	1.05	5.2632%	3.8600%	5.0000%		
5	22	2	0.8	2.2	2.41	0.93	9.3023%	3.8600%	10.0000%		
6	16	1	0.6	0.8	1.62	1.25	6.2500%	3.8600%	5.0000%		
7	18	1	0.7	0.9	1.48	1.14	5.7143%	3.8600%	5.0000%		
8	16	0	0.6	0.8	0.00	0.00	0.0000%	3.8600%	5.0000%		
9	22	1	0.8	1.1	1.20	0.93	4.6512%	3.8600%	5.0000%		
10	161	2	6.2	2.0	0.32	1.00	1.2461%	3.8600%	1.2500%		
<i>Total</i>	496	22	17.0	21.7	1.30	1.01	4.4400%	3.4238%	0.0000%		

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 10B

Calendar Years 2006 - 2010

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%	1.2500%	5.0000%
50	36	3	0.5	1.8	6.67	1.67	8.3333%	1.2500%	5.0000%
51	37	0	0.7	1.8	0.00	0.00	0.0000%	1.8800%	5.0000%
52	36	2	0.7	1.8	3.00	1.13	5.6338%	1.8800%	5.0000%
53	33	3	0.6	1.7	4.84	1.82	9.0909%	1.8800%	5.0000%
54	30	2	0.6	2.3	3.55	0.89	6.6667%	1.8800%	7.5000%
55	31	3	0.6	2.3	5.23	1.31	9.8361%	1.8800%	7.5000%
56	28	2	0.5	2.1	3.80	0.95	7.1429%	1.8800%	7.5000%
57	32	5	0.8	2.4	6.32	2.12	15.8730%	2.5100%	7.5000%
58	32	2	0.8	2.4	2.53	0.85	6.3492%	2.5100%	7.5000%
59	34	0	0.8	4.0	0.00	0.00	0.0000%	2.5100%	12.0000%
60	36	7	0.9	4.3	7.75	1.62	19.4444%	2.5100%	12.0000%
61	34	5	1.1	4.0	4.75	1.24	14.9254%	3.1400%	12.0000%
62	27	2	0.8	3.2	2.36	0.62	7.4074%	3.1400%	12.0000%
63	27	5	0.8	3.2	5.90	1.54	18.5185%	3.1400%	12.0000%
64	24	6	0.9	6.0	6.65	1.00	25.0000%	3.7600%	25.0000%
65	20	7	0.7	4.9	9.55	1.44	35.8974%	3.7600%	25.0000%
66	16	4	0.6	3.9	6.86	1.03	25.8065%	3.7600%	25.0000%
67	13	2	0.5	3.1	3.64	0.64	16.0000%	4.3900%	25.0000%
68	16	4	0.7	4.0	5.69	1.00	25.0000%	4.3900%	25.0000%
69	15	6	0.8	3.8	7.97	1.60	40.0000%	5.0200%	25.0000%
70	10	2	0.5	2.5	3.98	0.80	20.0000%	5.0200%	25.0000%
71	10	2	0.5	2.4	3.73	0.84	21.0526%	5.6400%	25.0000%
72	7	1	0.4	1.6	2.73	0.62	15.3846%	5.6400%	25.0000%
73	5	0	0.3	1.3	0.00	0.00	0.0000%	6.2700%	25.0000%
74	6	0	0.3	1.4	0.00	0.00	0.0000%	6.2700%	25.0000%
75	6	1	0.3	1.4	2.90	0.73	18.1818%	6.2700%	25.0000%
76	6	1	0.4	1.5	2.66	0.67	16.6667%	6.2700%	25.0000%
77	7	2	0.4	1.8	4.56	1.14	28.5714%	6.2700%	25.0000%
78	7	2	0.4	1.6	4.91	1.23	30.7692%	6.2700%	25.0000%
79	4	0	0.2	0.9	0.00	0.00	0.0000%	6.2700%	25.0000%
80	3	0	3.0	3.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	620	81	21.2	82.1	3.81	0.99	13.0645%	3.4247%	0.0000%

Table 10B

Calendar Years 2006 - 2010

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	315	9	12.2	9.5	0.74	0.95	2.8571%	3.8600%	3.0000%
50 to 59	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	315	9	12.2	9.5	0.74	0.95	2.8571%	3.8600%	0.0000%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 11A

Calendar Years 2006 - 2010

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	3,202	447	179.3	480.3	2.49	0.93	13.9600%	5.6000%	15.0000%
1	6,910	329	387.0	345.5	0.85	0.95	4.7612%	5.6000%	5.0000%
2	6,149	204	229.4	184.5	0.89	1.11	3.3176%	3.7300%	3.0000%
3	4,603	115	128.9	115.1	0.89	1.00	2.4984%	2.8000%	2.5000%
4	4,353	72	121.9	65.3	0.59	1.10	1.6540%	2.8000%	1.5000%
5	4,020	35	75.2	36.2	0.47	0.97	0.8706%	1.8700%	0.9000%
6	3,565	23	66.7	23.2	0.35	0.99	0.6452%	1.8700%	0.6500%
7	3,652	20	34.0	20.1	0.59	1.00	0.5476%	0.9300%	0.5500%
8	3,652	16	34.0	14.6	0.47	1.10	0.4381%	0.9300%	0.4000%
9	3,325	8	30.9	8.3	0.26	0.96	0.2406%	0.9300%	0.2500%
10	36,331	77	337.9	72.7	0.23	1.06	0.2119%	0.9300%	0.2000%
<i>Total</i>	<i>79,762</i>	<i>1,346</i>	<i>1,625.0</i>	<i>1,365.7</i>	<i>0.83</i>	<i>0.99</i>	<i>1.6875%</i>	<i>2.0373%</i>	<i>0.0000%</i>

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 11B

Calendar Years 2006 - 2010

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	0.00	0.00	0.0000%	7.1800%	7.1800%
50	2,185	215	157	153.0	1.37	1.41	9.8398%	7.1800%	7.0000%
51	1,957	125	141	137.0	0.89	0.91	6.3873%	7.1800%	7.0000%
52	1,836	93	132	128.5	0.71	0.72	5.0654%	7.1800%	7.0000%
53	1,765	100	127	123.6	0.79	0.81	5.6657%	7.1800%	7.0000%
54	1,678	111	120	117.5	0.92	0.95	6.6150%	7.1800%	7.0000%
55	1,582	117	114	110.7	1.03	1.06	7.3957%	7.1800%	7.0000%
56	1,507	96	108	105.5	0.89	0.91	6.3703%	7.1800%	7.0000%
57	1,491	112	107	104.4	1.05	1.07	7.5117%	7.1800%	7.0000%
58	1,460	121	105	102.2	1.15	1.18	8.2877%	7.1800%	7.0000%
59	1,379	143	99	137.9	1.44	1.04	10.3698%	7.1800%	10.0000%
60	1,175	156	84	141.0	1.85	1.11	13.2766%	7.1800%	12.0000%
61	908	152	130	145.3	1.17	1.05	16.7401%	14.3600%	16.0000%
62	636	167	365	190.8	0.46	0.88	26.2579%	57.4300%	30.0000%
63	389	59	173	58.4	0.34	1.01	15.1671%	44.5000%	15.0000%
64	264	47	133	39.6	0.35	1.19	17.8030%	50.2500%	15.0000%
65	184	48	132	46.0	0.36	1.04	26.0870%	71.7800%	25.0000%
66	120	24	41	30.0	0.58	0.80	20.0000%	34.4600%	25.0000%
67	83	14	29	20.8	0.49	0.67	16.8675%	34.4600%	25.0000%
68	57	13	20	14.3	0.66	0.91	22.8070%	34.4600%	25.0000%
69	41	7	14	10.3	0.50	0.68	17.0732%	34.4600%	25.0000%
70	30	6	10	7.5	0.58	0.80	20.0000%	34.4600%	25.0000%
71	24	5	8	6.0	0.60	0.83	20.8333%	34.4600%	25.0000%
72	13	3	4	3.3	0.67	0.92	23.0769%	34.4600%	25.0000%
73	11	1	4	2.8	0.26	0.36	9.0909%	34.4600%	25.0000%
74	7	1	2	1.8	0.41	0.57	14.2857%	34.4600%	25.0000%
75	3	0	1	0.8	0.00	0.00	0.0000%	34.4600%	25.0000%
76	2	1	1	0.7	1.45	1.43	50.0000%	34.4600%	35.0000%
77	2	1	1	0.7	1.45	1.43	50.0000%	34.4600%	35.0000%
78	1	0	0	0.4	0.00	0.00	0.0000%	34.4600%	35.0000%
79	1	0	0.3	0.4	0.00	0.00	0.0000%	34.4600%	35.0000%
80	1	0	1.0	1.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	20,792	1,938	2,364.1	1,941.6	0.82	1.00	9.3209%	11.3701%	0.0000%

Table 11B

Calendar Years 2006 - 2010

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	63501	515	590.6	508.0	0.87	1.01	0.8110%	0.9300%	0.8000%
50 to 59	0	0	0.0	0.0	0.00	0.00	0.0000%	0.0000%	0.0000%
Total	63,501	515	590.6	508.0	0.87	1.01	0.8110%	0.9300%	0.0000%

COMMONWEALTH OF PENNSYLVANIA
State Employees' Retirement System

Table 12A

Calendar Years 2006 - 2010

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
20	636	40	29.9	31.8	1.34	1.26	6.2893%	4.7000%	5.0000%
21	615	54	7.3	30.8	7.44	1.76	8.7805%	1.1800%	5.0000%
22	587	26	6.9	29.4	3.75	0.89	4.4293%	1.1800%	5.0000%
23	572	8	6.7	28.6	1.19	0.28	1.3986%	1.1800%	5.0000%
24	534	92	6.3	80.1	14.60	1.15	17.2285%	1.1800%	15.0000%
25	419	201	147.8	209.5	1.36	0.96	47.9714%	35.2700%	50.0000%
26	170	44	34.0	34.0	1.29	1.29	25.8824%	19.9900%	20.0000%
27	94	20	17.7	18.8	1.13	1.06	21.2766%	18.8100%	20.0000%
28	71	8	13.4	14.2	0.60	0.56	11.2676%	18.8100%	20.0000%
29	49	12	9.2	9.8	1.30	1.22	24.4898%	18.8100%	20.0000%
30	37	12	7.0	11.1	1.72	1.08	32.4324%	18.8100%	30.0000%
31	33	6	6.2	6.6	0.97	0.91	18.1818%	18.8100%	20.0000%
32	26	10	4.9	10.4	2.04	0.96	38.4615%	18.8100%	40.0000%
33	28	7	5.3	11.2	1.33	0.63	25.0000%	18.8100%	40.0000%
34	26	11	9.2	10.4	1.20	1.06	42.3077%	35.2700%	40.0000%
35	18	7	8.7	9.0	0.81	0.78	38.8889%	48.2100%	50.0000%
36	11	6	5.3	5.5	1.13	1.09	54.5455%	48.2100%	50.0000%
37	10	9	4.8	5.0	1.87	1.80	90.0000%	48.2100%	50.0000%
38	2	2	1.0	1.0	2.07	2.00	100.0000%	48.2100%	50.0000%
39	0	0	0.0	0.0	0.00	0.00	0.0000%	48.2100%	50.0000%
40	0	0	0.0	0.0	0.00	0.00	0.0000%	100.0000%	100.0000%
Total	3,938	575	331.4	557.1	1.74	1.03	14.6013%	8.4156%	0.0000%