
United States Department
of the Treasury
District of Columbia
Pensions Program

Actuarial Experience Study
July 1, 2005 through
June 30, 2008



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Contents

Executive Summary	1
Purpose	1
Scope of Report	1
Retirement Rates	1
Termination Rates	2
Disability Rates	2
Longevity and Promotion Pay Increases	2
Mortality Rates	2
Cost Impact	2
Actuarial Certification	2
Introduction	
Importance of Accurate Assumptions	4
Purposes of the Experience Study	4
Methodology	
Section 1: Active Decrements	6
Service Retirement	7
Termination	10
Disability	13
Judges Decrements	16

Section 2: Pay Increases	17
Longevity and Promotion Pay Increases	18
Section 3: Mortality and Beneficiary Analysis	20
Police and Fire Mortality	21
Teachers Mortality	22
Judges Mortality	23
Beneficiaries	24
Conclusion	25

Executive Summary

Purpose

The purpose of this Actuarial Experience Study is to review the actuarial experience of the United States Department of the Treasury (Treasury) District of Columbia Pensions Program during the period from July 1, 2005 through June 30, 2008.

The demographic experience – observed rates of retirement, termination, disability, and death – of each plan is compared with the experience expected under the actuarial assumptions used to determine Plan liabilities and cost, and revised assumptions are recommended as appropriate. Current assumptions are based on the most recent experience study conducted in 2004.

Where feasible, experience has been examined separately for male and female members. In some cases, experience has been combined when male and female experience is similar or when there is insufficient data to produce reliable rates by sex.

The purpose of this Section of the Study is to give the reader a summary of the major conclusions that have been reached. Details are presented in later sections of this Report.

Scope of Report

Demographic assumptions relate to all behavioral characteristics of the group. Behavioral characteristics do not include the assumptions concerning future inflation, the real rates of return of

the investments in the trust funds, or the anticipated growth in the underlying payroll of the members.

Demographic assumptions include the following:

- Probability of retirement from active service,
- Probability of termination of employment prior to retirement,
- Probability of disability among active employees,
- Probability of death among active employees, and
- Rates of mortality among retired and disabled members and their beneficiaries.

In addition, demographic assumptions include the merit (longevity and promotion) component of individual pay increases.

Retirement Rates

Over the past four years, expected retirements have generally been in line with current actuarial assumptions in aggregate. However, higher than expected rates were observed for Police and Fire members, while lower than expected rates were observed for Teachers and Judges.

New sets of retirement rates are proposed for Fire, Police, and Judges, bringing assumptions more closely into line with experience. The proposed rates do not vary significantly from the currently assumed rates.



Termination Rates

The number of terminations among Police and Fire members was more than the number expected, while the number of terminations among Teachers was less than expected. New termination assumptions are proposed for all groups.

Disability Rates

The rates of disability observed during this Study were lower than those assumed. Accordingly, new lower rates are recommended. Gender differences among Police members are also accounted for. No disabilities are assumed among Judges.

Longevity and Promotion Pay Increases

Pay of active members is assumed to increase annually by inflation, plus additional service based amounts for longevity, promotion, and contractual agreements. For example, if inflation is 3.5% and the employee receives a 5% pay increase, 1.5% of this increase is deemed "merit". Current assumptions are based on a constant percentage throughout members' careers; however, our analysis has shown that annual rates of increases tend to decrease at higher service levels. Therefore, we have recommended alternate sets of rates for each group. Judges longevity increases remain at 0% per year.

Mortality Rates

Overall, rates of mortality among members and their survivors in this Study were lower than expected based on current assumptions. Consequently, we recommend introducing several age setbacks for Fire and Police males and for all Teachers. No changes for disabled mortality or Judges are recommended.

Cost Impact

Proposed assumption changes are expected to decrease liabilities and costs for the Judges Plan, and to increase liabilities by 3%-5% for the Fire, Police, and Teachers Plan, primarily due to changes in mortality and retirement rates.

Actuarial Certification

The report has been prepared in accordance with generally accepted actuarial methods and procedures as described in Actuarial Standard of Practice (ASOP) 35 (Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations). EFI will answer any questions from Treasury staff regarding its methodology or conclusions.



Gregory M. Stump, FSA, EA, MAAA

A handwritten signature in black ink, appearing to read "Graham Schmidt". The signature is written in a cursive style with a large, prominent initial "G".

Graham A. Schmidt, ASA, MAAA

Introduction

Importance of Accurate Assumptions

The liabilities and costs calculated in actuarial valuations and cost studies are based on a projection of future conditions. The actuary makes assumptions concerning the rates of retirement, termination, disability, and death among plan members. In addition, the actuary must project future earnings on plan assets, inflation, and growth in the pay of active members.

The actuary sets assumptions based on past experience and future expectations. In setting demographic assumptions, such as rates of retirement, the past experience of the covered group of employees is often the best predictor of future behavior. When establishing economic assumptions, such as the expected return on plan assets, the historical behavior of the investment markets can serve as a guide.

Actuarial funding methods are designed so that, if the actuarial assumptions are met, plan costs will generally be a level percentage of member pay from year to year. When actual economic or demographic experience varies from our assumptions, plan costs will rise or fall accordingly. Therefore, it is worth the effort to make our best estimate of future conditions so that the plan costs computed by the actuary will be as stable and predictable as possible.

Purposes of the Experience Study

The goal of this Experience Study is to review the recent past demographic experience of each group. We seek to understand the behavior of the participating members so that we can recommend actuarial assumptions concerning future demographic experience.

Once adopted, the assumptions recommended by this Study will be used to determine future liabilities and costs and for purposes of evaluating prospective changes in benefits, eligibility conditions, and other aspects of the Plan's operations.

Methodology

One goal of this Study is to compute the probability of death, disability, retirement, and termination at each age for active members and the probability of death at each age for inactive members.

To this end, we proceed as follows:

- We count the number of members leaving for each cause during the term of the Study. This is the number of decrements.
- We count the number of members per year who could have left for each cause during the Study. This is the exposure.
- When the exposure is sufficient, we divide the number of decrements by the exposure at each combination of age and



service for an employee group to determine the probability of leaving due to the cause in question.

It is common for assumed retirement rates to be 100% once a certain age and/or service level is reached (e.g. all members assumed to retire after age 65). In order to avoid skewed results, it is often necessary to include only retirement data up to the assumed ultimate age or service level. It is also sometimes necessary to exclude experience when it is no longer applicable (e.g. retirement eligibility for a closed group).

When there is insufficient exposure to derive statistically reliable rates by age and service, we may combine exposures and decrements for groups of ages and service. Alternatively, we may compare the total number of actual decrements with the total number of decrements predicted by a standard actuarial table, and adopt a table that predicts decrements, in total, reasonably close to those that have been observed.

Section 1: Active Decrements



Service Retirement

Current Assumptions

Summary of Experience versus Current Assumptions

	Eligible Exposure	Actual Retirements	Expected Retirements	Actual to Expected Ratio
Fire	376	90	62	144%
Police	490	104	90	116%
Teachers	2,610	483	522	93%
Total	3,476	677	674	100%

	Actual Average Age	Expected Average Age
Fire	53.4	53.1
Police	53.0	54.0
Teachers	60.6	60.7

- There are a small number of pre-1980 Police and Fire members remaining in the Plan; however, the vast majority of them are over age 50. We expect to see nearly all retirements between the ages of 50 and 60 in the future, based on the eligibility requirements.
- The data shown above represents ages 50-60 for Fire and Police, and ages 55-69 for Teachers.
- The actual number of retirements is somewhat higher than expected for Police and Fire, and lower than expected for Teachers.
- Terminations among Teachers that occurred while eligible to retire were deemed to be retirements.
- A service based correlation can be seen among Fire retirements, with higher rates of retirement occurring after 30 years of service.
- Rates among female police officers were higher than among male officers.

Recommendations

Summary of Experience versus Proposed Assumptions

	Eligible Exposure	Actual Retirements	Expected Retirements	Actual to Expected Ratio
Fire	376	90	96	94%
Police	490	104	111	94%
Teachers	2,610	483	522	93%
Total	3,476	677	729	93%

	Actual Average Age	Expected Average Age
Fire	53.4	53.4
Police	53.0	53.8
Teachers	60.6	60.7

- New rates for Fire and Police are proposed which reflect a higher number of expected retirements, in line with recent experience. Higher rates are proposed for Fire members with 30 or more years of service, which reflect recent experience.
- Although fewer retirements occurred than were expected among Teachers, the difference was not significant and actual rates at most ages were reasonably close to 20%, as currently assumed. Therefore we recommend maintaining the current assumed rates.
- As shown in Charts A-1 through A-4 below, the proposed assumptions are closely in line with actual experience for all groups.

Chart A-1: Fire Retirement Rates

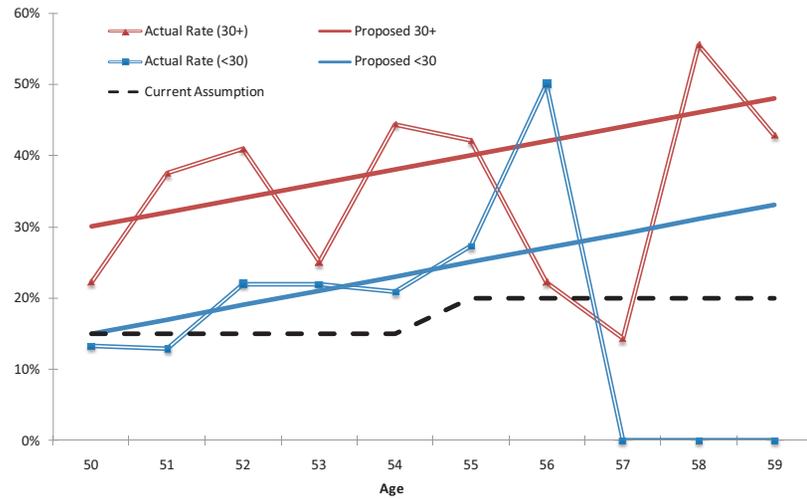


Chart A-2: Fire Number of Retirements

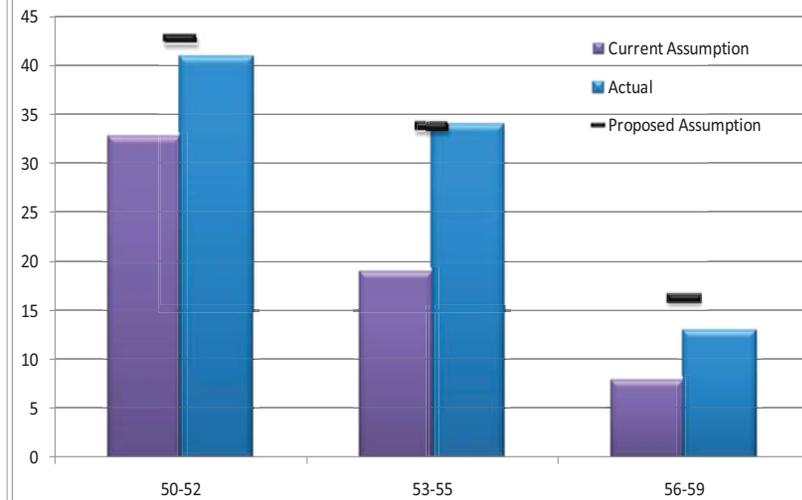


Chart A-3: Police Retirement Rates

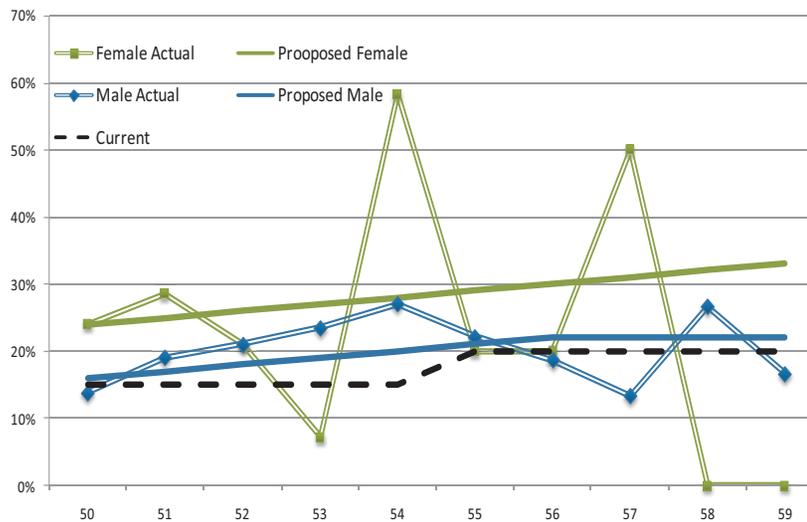
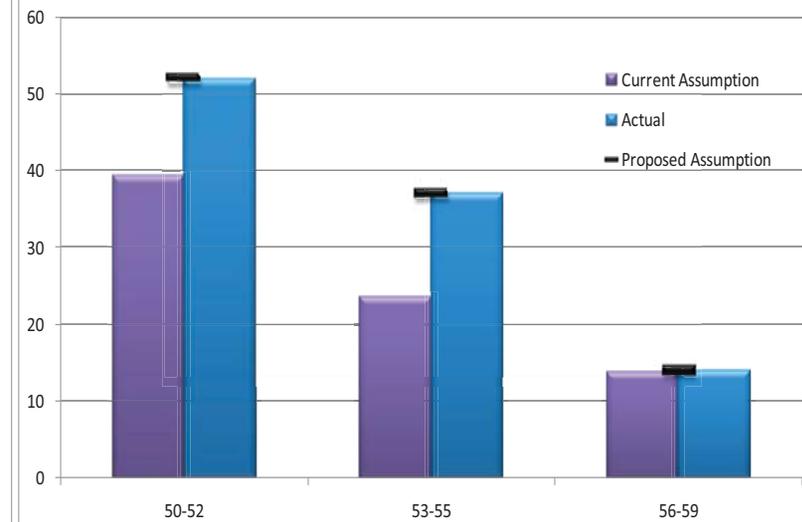


Chart A-4: Police Number of Retirements



Retirement Rates – Current Assumed Rates

Age	Police and Fire	Teachers
45-49	10%	0%
50-54	15%	0%
55-59	20%	20%
60-69	100%	20%
70+	100%	100%

Retirement Rates – Proposed Rates

Age	Fire		Police	
	<30 Years Service	30+ Years Service	Male	Female
45-49	10%	10%	10%	10%
50	15%	30%	16%	24%
51	17%	32%	17%	25%
52	19%	34%	18%	26%
53	21%	36%	19%	27%
54	23%	38%	20%	28%
55	25%	40%	21%	29%
56	27%	42%	22%	30%
57	29%	44%	22%	31%
58	31%	46%	22%	32%
59	33%	48%	22%	33%
60+	100%	100%	100%	100%

No change in assumed retirement rates is recommended for Teachers.

Termination

Current Assumption

Summary of Experience versus Current Assumptions

	Eligible Exposure	Actual Terminations	Expected Terminations	Actual to Expected Ratio
Fire	2,222	21	12	182%
Police	6,027	96	32	296%
Teachers	4,783	169	233	73%
Total	13,032	286	277	103%

	Actual Average Age	Expected Average Age
Fire	41.8	39.8
Police	41.6	40.1
Teachers	47.6	45.2

- Actual termination rates among Fire and Police were relatively low.
- All terminations are expected to result in refunds; however, recent experience indicates that about 30% of terminating members are expected to receive a deferred annuity benefit.
- The actual number of terminations was higher than that expected for Fire and Police members.
- Probability of termination among Fire members continues to decrease with age; however, for Police members, an age pattern is no longer evident.
- Actual termination rates among Teachers have been lower than expectations.
- Rates among males have been somewhat higher than for females.

Recommendation

Summary of Experience versus Proposed Assumptions

	Eligible Exposure	Actual Terminations	Expected Terminations	Actual to Expected Ratio
Fire	2,222	21	20	106%
Police	6,027	96	96	100%
Teachers	4,783	169	165	103%
Total	13,032	286	281	102%

	Actual Average Age	Expected Average Age
Fire	41.8	40.5
Police	41.6	41.7
Teachers	47.6	47.0

- A decreasing pattern is maintained for Fire, in accordance with recent experience.
- A flat rate is proposed for Police, since no age pattern can be discerned.
- Separate rates for male and female Teachers are proposed.
- Assuming that 30% of vested terminations will receive a deferred benefit is proposed. The remainder will be assumed to receive a refund of contributions.
- Proposed assumptions bring actual experience more in line with that expected, in both number of terminations and average age.
- Charts A-5 through A-8 show rates of termination in comparison with current and proposed assumptions. Chart A-8 shows the number of terminations.

Termination Rates – Current Representative Rates

Age	Fire	Police	Teachers
30	1.00%	3.40%	15.83%
35	0.80%	1.70%	13.70%
40	0.60%	0.70%	11.25%
45	0.50%	0.40%	8.43%
50	0.00%	0.00%	5.06%
55	0.00%	0.00%	1.73%
60	0.00%	0.00%	0.16%

No terminations are assumed for those who are eligible to retire.

Termination Rates – Proposed Rates

Age	Fire	Police	Teachers	
			Male	Female
30	1.50%	1.60%	15.83%	7.92%
35	1.25%	1.60%	13.70%	6.85%
40	1.00%	1.60%	11.25%	5.63%
45	0.75%	1.60%	8.43%	4.22%
50	0.50%	1.60%	5.06%	2.53%
55	0.25%	1.60%	3.00%	1.80%
60	0.00%	0.00%	3.00%	1.80%

No terminations are assumed for those who are eligible to retire.

Chart A-5: Fire Termination Rates

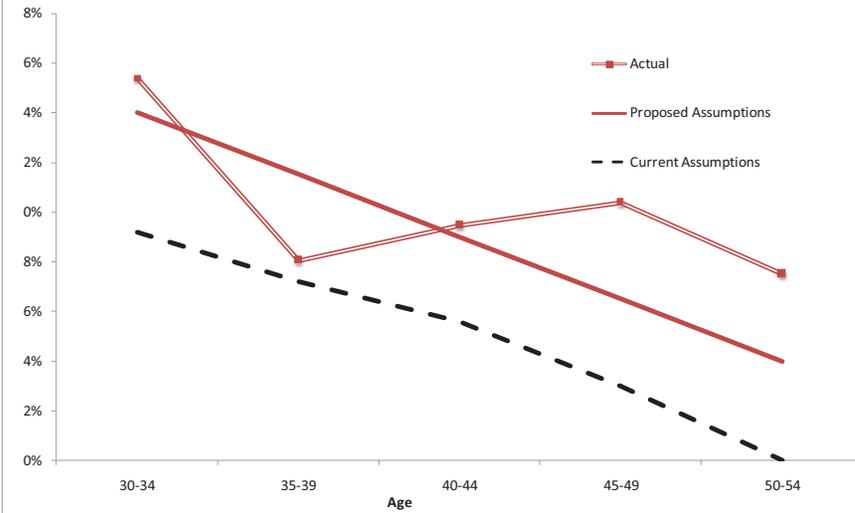


Chart A-6: Police Termination Rates

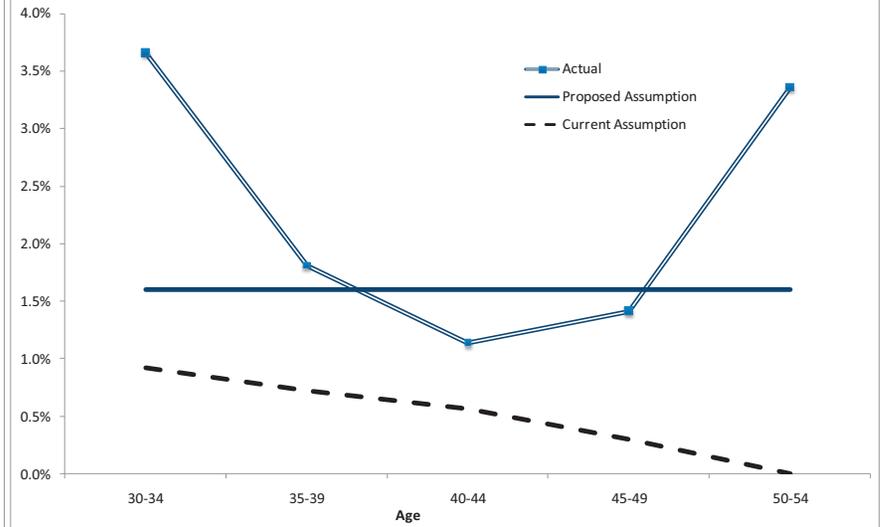


Chart A-7: Teachers Termination Rates

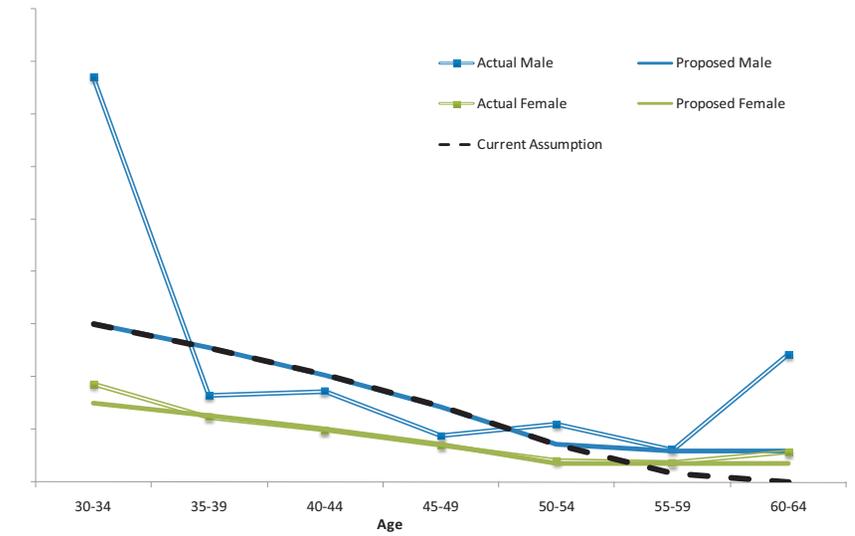
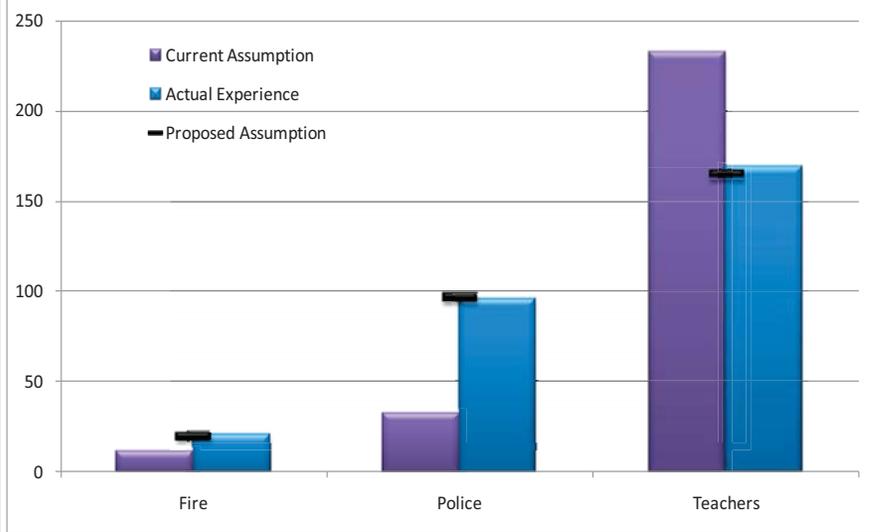


Chart A-8: Number of Terminations



Disability

Current Assumption

Summary of Experience versus Current Assumptions

	Eligible Exposure	Actual Disabilities	Expected Disabilities	Actual to Expected Ratio
Fire	2,766	11	56	20%
Police	6,927	67	82	82%
Teachers	7,545	23	34	67%
Total	17,238	101	172	59%

	Actual Average Age	Expected Average Age
Fire	43.8	47.5
Police	42.8	46.1
Teachers	54.6	55.1

- Overall, the number of disabilities was much lower than expected, consistent with the prior experience study.
- The number of disabilities among male Police members was lower than expected while the number among females was relatively close to expectations. No age pattern was evident in either case.
- The actual rates of disability among Fire members were significantly lower than expected.
- 75% of disabilities among Police and Fire members are assumed to occur in the line of duty. The actual proportion was slightly lower.
- The rates of disability observed among Teachers were lower than expected.

Recommendation

Summary of Experience versus Proposed Assumptions

	Eligible Exposure	Actual Disabilities	Expected Disabilities	Actual to Expected Ratio
Fire	2,766	11	21	53%
Police	6,927	67	71	94%
Teachers	7,545	23	30	77%
Total	17,238	101	122	83%

	Actual Average Age	Expected Average Age
Fire	43.8	46.7
Police	42.8	42.9
Teachers	54.6	55.5

- Proposed rates for Fire members are 40% - 70% lower than the currently assumed rates.
- Flat rates are proposed for Police members; 0.9% for males and 1.4% for females, in line with recent experience.
- No change in the assumed proportion of duty related disabilities is proposed for Police and Fire members.
- Slight modifications in assumed rates are proposed for Teachers over the age of 45.
- Proposed rates match more closely with actual experience for all groups at all age levels as shown in Charts A-9 through A-12 below.

Chart A-9: Fire Disability Rates

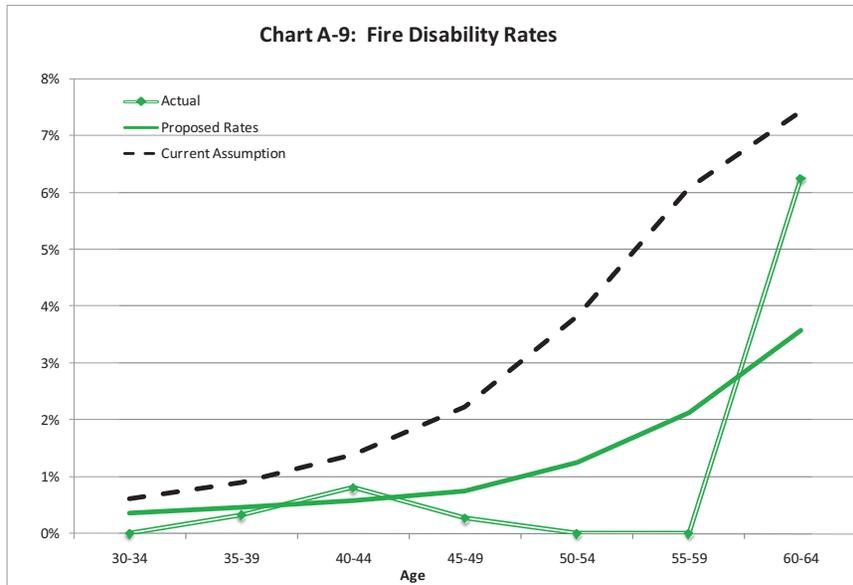


Chart A-10: Police Disability Rates

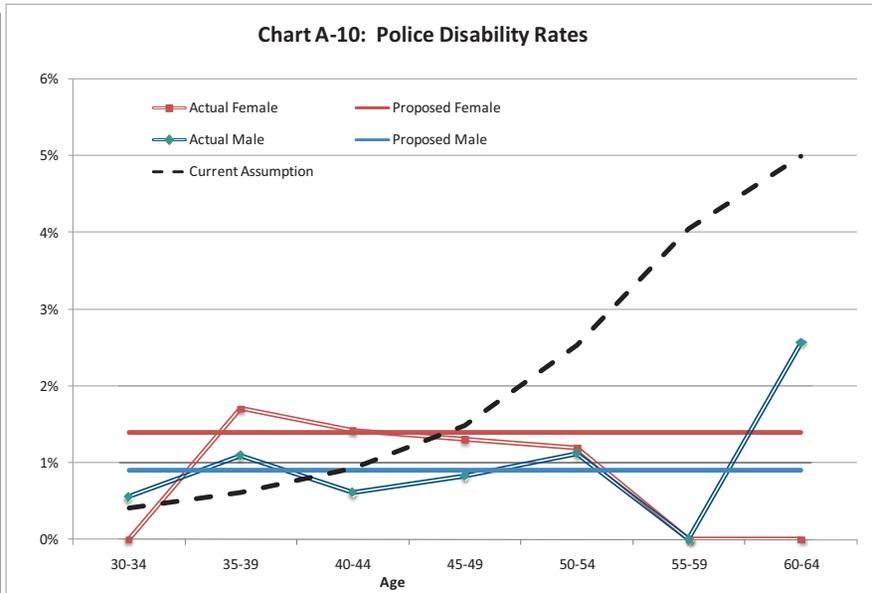


Chart A-11: Teachers Disability Rates

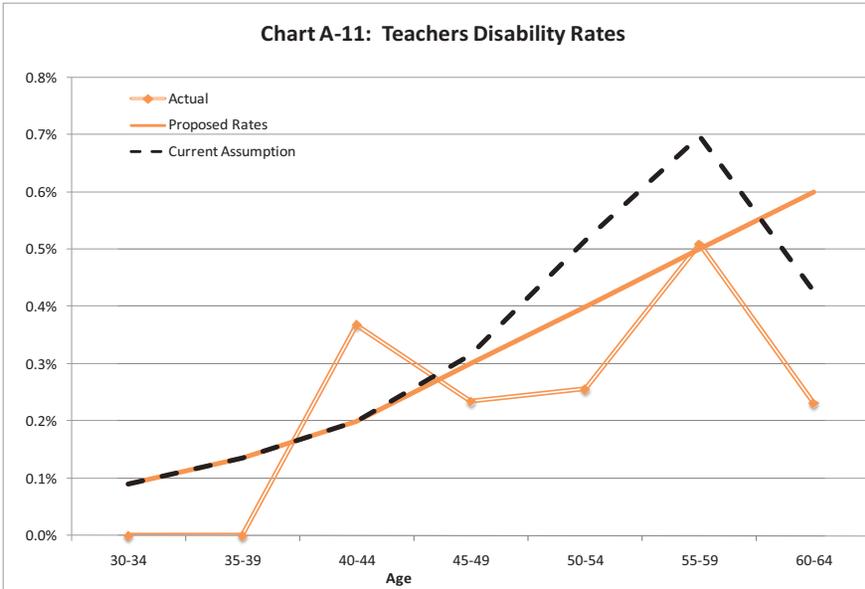
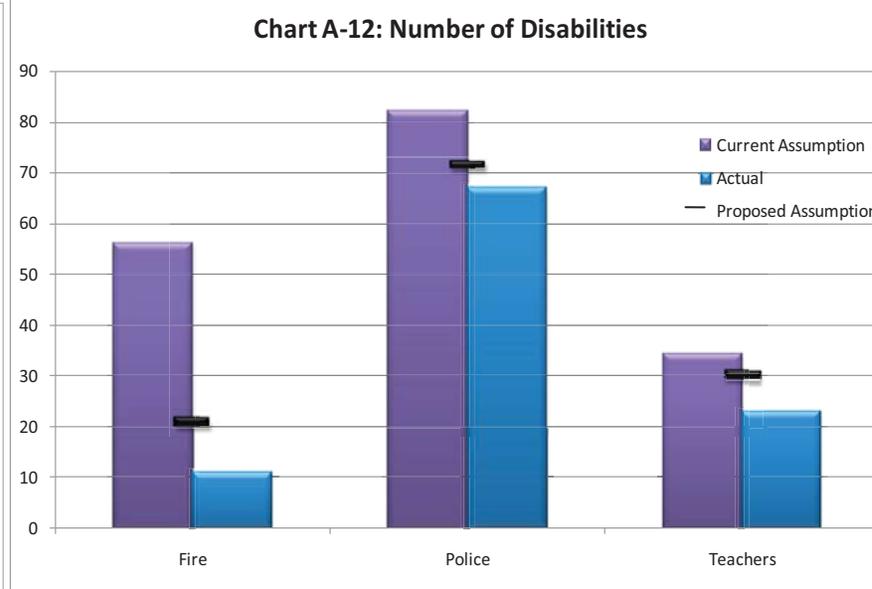


Chart A-12: Number of Disabilities



Disability Rates – Current Representative Rates

Age	Fire	Police	Teachers
30	0.520%	0.340%	0.070%
35	0.770%	0.510%	0.120%
40	1.130%	0.750%	0.160%
45	1.770%	1.180%	0.260%
50	2.930%	1.950%	0.400%
55	5.200%	3.410%	0.690%
60	7.430%	5.000%	0.710%

Disability Rates – Proposed Representative Rates

Age	Fire	Police		Teachers
		Male	Female	
30	0.326%	0.900%	1.400%	0.070%
35	0.416%	0.900%	1.400%	0.120%
40	0.531%	0.900%	1.400%	0.160%
45	0.716%	0.900%	1.400%	0.260%
50	1.206%	0.900%	1.400%	0.360%
55	2.033%	0.900%	1.400%	0.460%
60	3.426%	0.900%	1.400%	0.560%

Judges Decrements

Current Assumptions

	Eligible Exposure	Actual	Expected	Actual to Expected Ratio
Retirements (50-63)	61	2	8	25%
Terminations	122	0	0	N/A
Disabilities	205	0	0	N/A

The current demographic assumptions for Judges include the following:

- All judges are assumed to retire at age 63, provided they have at least 10 years of judicial service
- No disabilities or terminations are assumed

Based on an analysis of recent experience, summarized in the table above, we can conclude the following:

- Retirements are occurring at ages other than 63. Over the last three years, judges have retired at ages 57 – 70, with the majority retiring at age 68 or later.
- No disabilities or terminations occurred during the past three years.

Recommendations

	Eligible Exposure	Actual	Expected	Actual to Expected Ratio
Retirements (50-70)	82	4	6.6	61%
Terminations	122	0	0	N/A
Disabilities	205	0	0	N/A

- Since retirements are not occurring at a single age, we recommend adopting a 20% rate for ages 63 to 70, and a 100% rate after age 70.
- No changes in assumed disabilities or terminations are recommended.

Section 2: Pay Increases

Longevity and Promotion Pay Increases

Pay increases consist of three components: increases due to cost of living maintenance (inflation), increases related to productivity (increases in the *relative* standard of living), and Increases due to merit, promotion, and longevity. Increases due to cost of living and productivity are addressed in the Economic Assumptions section of this report.

In the charts below, the average pay of the active members is plotted against service. In addition, a curve is fitted to the average pay data, and this curve is used to determine a pay increase due to merit. This is a *transverse* study of longevity and promotion pay increases: The data is taken as of a particular point in time, so that the effects of past inflation do not confound the results.

Current Assumption					Recommendation (Sample Rates)			
	Fire	Police	Teachers	Judges	Years of Service	Fire	Police	Teachers
Assumed Increase	3.0%	3.0%	2.0%	0.0%	12	2.5%	2.4%	1.9%
<ul style="list-style-type: none"> Additional increases for longevity are assumed at 20, 25, and 30 years of service for Fire (shown in Chart A-13) and Police (not shown in Chart A-14). Virtually all Fire, Police, and Teacher members have at least 11 years of service, so pay increases before this were not analyzed. Pay increases for all groups seem to decrease over the course of members' careers. Longevity increases after 30 years of service appear to be close to 0% for Police and Teachers, and about 0.5% for Fire. Longevity increases for Judges remain at 0%. 					15	7.4%	2.1%	1.6%
					18	2.0%	1.6%	1.3%
					20	6.6%	6.8%	1.1%
					23	1.5%	0.6%	0.8%
					26	1.0%	0.0%	0.5%
					29	1.0%	0.0%	0.2%
					32	0.5%	0.0%	0.0%

- Slight upward adjustments to assumed salary increase rates at 20 -25 years of service are proposed.
- See Charts A-13 through A-15 below for illustrations of actual pay versus current and proposed assumptions for each group.

Chart A-13: Fire Pay as of July 1, 2008
 Average Pay vs. Years of Service

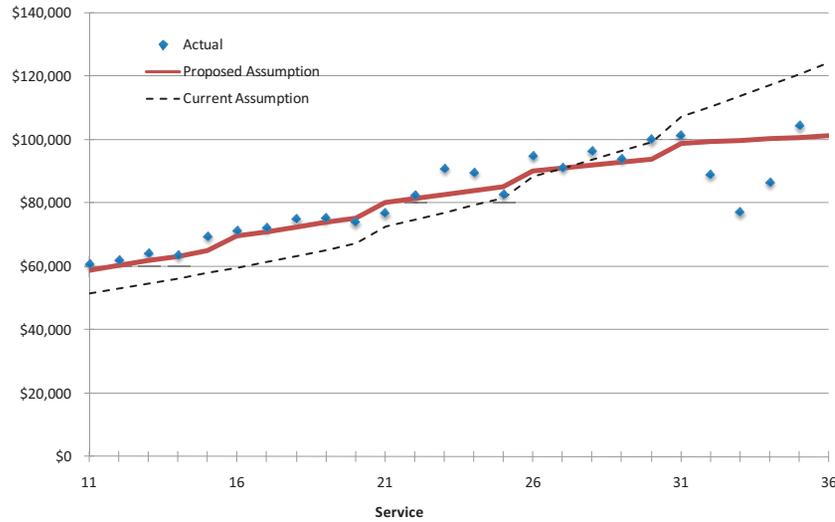


Chart A-14: Police Pay as of July 1, 2008
 Average Pay vs. Years of Service

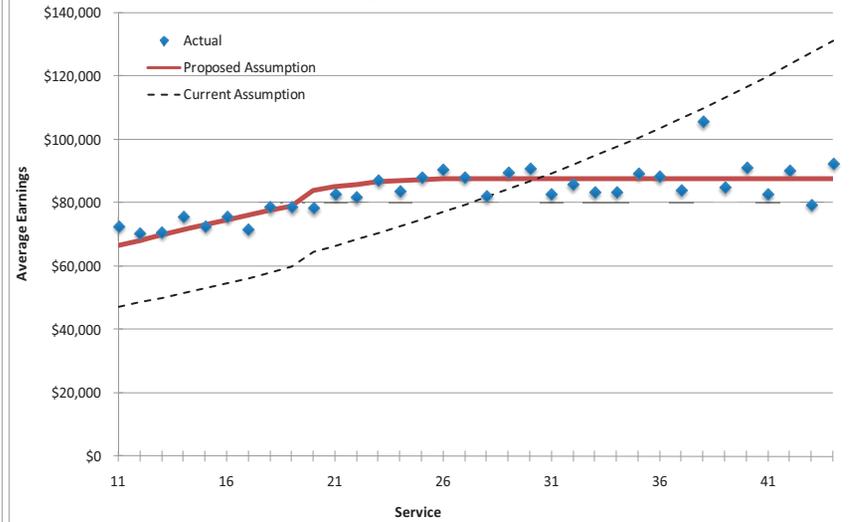
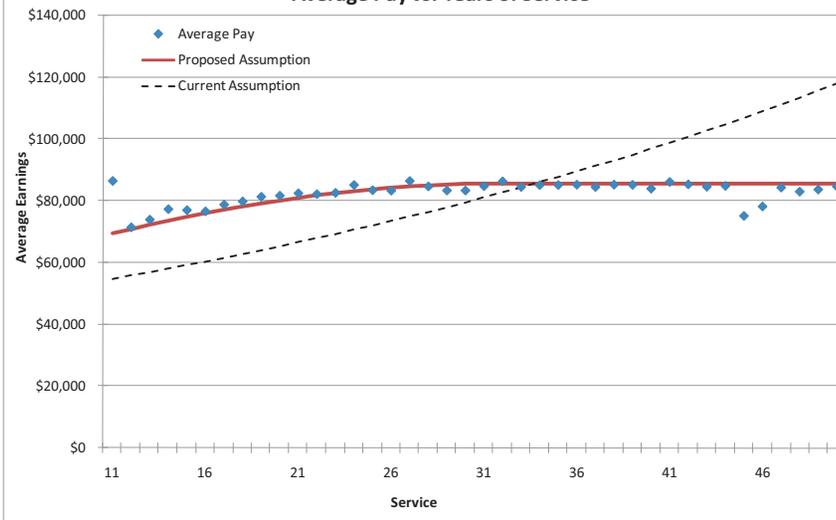


Chart A-15: Teachers Pay as of July 1, 2008
 Average Pay vs. Years of Service



Section 3: Mortality and Beneficiary Analysis

Police and Fire Mortality

Current Assumption					Recommendation				
Summary of Experience versus Current Assumptions					Summary of Experience versus Proposed Assumptions				
ACTIVE	Eligible Exposure	Actual Deaths	Expected Deaths	Actual to Expected Ratio	COMBINED HEALTHY	Eligible Exposure	Actual Deaths	Expected Deaths	Actual to Expected Ratio
Males	7,748	11	17.9	61%	Males	19,385	162	157.3	103%
Females	1,945	2	2.3	87%	Females	6,928	252	214.3	118%
Combined	9,693	13	20.2	64%	Combined	26,313	414	371.6	111%
RETIREEES & BENEFICIARIES	Eligible Exposure	Actual Deaths	Expected Deaths	Actual to Expected Ratio					
Males	11,637	151	229.8	66%					
Females	4,983	250	212.0	118%					
Combined	16,620	401	441.8	91%					
COMBINED HEALTHY	Eligible Exposure	Actual Deaths	Expected Deaths	Actual to Expected Ratio					
Males	19,385	162	247.7	65%					
Females	6,928	252	214.3	118%					
Combined	26,313	414	462.0	90%					
DISABLED	Eligible Exposure	Actual Deaths	Expected Deaths	Actual to Expected Ratio					
Males	4,774	188	191.7	98%					
Females	534	5	2.1	239%					
Combined	5,308	193	193.8	100%					

- The currently assumed rates of mortality for healthy and disabled members are based on the 2000 Retired Pensioners, Blue Collar (RP2000-BC) tables for males and females.
- Current rates have somewhat overestimated male deaths and underestimated female deaths among healthy participants.
- We recommend use of a five year age setback for healthy male Fire and Police members, bringing expectations more closely in line with actual experience.
- No change in disabled mortality is recommended.

Teachers Mortality

Current Assumption

Summary of Experience versus Current Assumptions

ACTIVE	Eligible Exposure	Actual Deaths	Expected Deaths	Actual to Expected Ratio
Males	1,541	4	12.0	33%
Females	6,004	10	27.8	36%
Combined	7,545	14	39.8	35%

RETIREEES & BENEFICIARIES	Eligible Exposure	Actual Deaths	Expected Deaths	Actual to Expected Ratio
Males	3,048	106	135.5	78%
Females	12,579	425	486.4	87%
Combined	15,627	531	621.9	85%

COMBINED HEALTHY	Eligible Exposure	Actual Deaths	Expected Deaths	Actual to Expected Ratio
Males	4,589	110	147.5	75%
Females	18,583	435	514.2	85%
Combined	23,172	545	661.7	82%

DISABLED	Eligible Exposure	Actual Deaths	Expected Deaths	Actual to Expected Ratio
Males	257	15	11.5	131%
Females	1,113	57	43.7	131%
Combined	1,370	72	55.1	131%

Recommendation

Summary of Experience versus Proposed Assumptions

COMBINED HEALTHY	Eligible Exposure	Actual Deaths	Expected Deaths	Actual to Expected Ratio
Males	4,589	110	112.2	98%
Females	18,583	435	426.3	102%
Combined	23,172	545	538.5	101%

- The currently assumed rates of mortality for healthy and disabled members are based on the 2000 Retired Pensioners, Blue Collar (RP2000-BC) tables for males and females.
- Current rates have somewhat overestimated male and female deaths among healthy participants, and underestimated deaths among disabled participants.
- We recommend use of a three year age setback for healthy male members and a two year setback for healthy female members, bringing expectations more closely in line with actual experience.
- Due to relatively small number of disabled deaths, no change in disabled mortality is recommended; however, we will monitor experience in the future to determine if a change is warranted.

Judges Mortality

Current Assumption

Summary of Experience versus Current Assumptions

ACTIVE	Eligible Exposure	Actual Deaths	Expected Deaths	Actual to Expected Ratio
Males	113	0	0.9	0%
Females	92	0	0.4	0%
Combined	205	0	1.3	0%

TIREES & BENEFICIARIES	Eligible Exposure	Actual Deaths	Expected Deaths	Actual to Expected Ratio
Males	137	5	5.5	91%
Females	82	6	3.6	168%
Combined	219	11	6.2	121%

COMBINED HEALTHY	Eligible Exposure	Actual Deaths	Expected Deaths	Actual to Expected Ratio
Males	250	5	6.4	79%
Females	174	6	3.9	153%
Combined	424	11	10.3	107%

DISABLED	Eligible Exposure	Actual Deaths	Expected Deaths	Actual to Expected Ratio
Males	3	0	0.2	0%
Females	0	0	0.0	0%
Combined	3	0	0.2	0%

Recommendation

- The currently assumed rates of mortality for healthy and disabled members are based on the 2000 Retired Pensioners (RP2000) tables for males and females.
- Current rates have been closely in line with expectations overall.
- No changes in assumed mortality are proposed for Judges.

Beneficiaries

Current Assumptions	Recommendation
<p>Rates of Marriage</p> <ul style="list-style-type: none"> • A portion of each population is assumed to be married for the purpose of determining pre-retirement and post-retirement death benefit obligations. • For Teachers, the current assumption is that 50% are married; for Police and Fire members, this rate is 80%. • The actual proportion of Police and Fire members who currently have spouses is approximately 70%. • For Judges, those who have elected to contribute towards beneficiary benefits are assumed to have an eligible beneficiary upon death. The current proportion of the Judges population that has elected this benefit is approximately 40% for active members and 57% for retired members. <p>Survivor Benefits</p> <ul style="list-style-type: none"> • Active Teachers are assumed to receive a life annuity with no survivor continuance upon retirement. • Teachers may elect survivor benefits upon retirement. A benefit reduction applies in these cases. Currently, about 25% of Teacher retirees appear to have survivor benefits • Police and Fire retirees are entitled to a survivor continuance benefit equal to 40% of their final average pay, adjusted for COLAs. • Currently, it is assumed that this 40% of final average pay benefit will result in a 57% joint and survivor benefit. 	<ul style="list-style-type: none"> • We recommend maintaining all of the current marriage and survivor benefits assumptions. • It is reasonable to continue to assume that Teacher retirements will result in life annuity benefits because the value of the survivor benefit for those who elect it is approximately offset by the reduced pension benefit, thereby resulting in nearly the same present value. • For Police and Fire, the current 80% marriage assumption is slightly more conservative than actual experience, which we believe to be reasonable. • We conclude that the Police and Fire survivor continuance rate of 57% continues to be valid based on the following: <ul style="list-style-type: none"> • The average benefit rate for recent retirees was 72.5% of final average pay. • A 40% of final average pay survivor benefit equates to 55% of the benefit itself ($40\% \div 72.5\%$). • The survivor benefit was about 59% among a small sample of surviving spouses who recently commenced benefits.

Conclusion

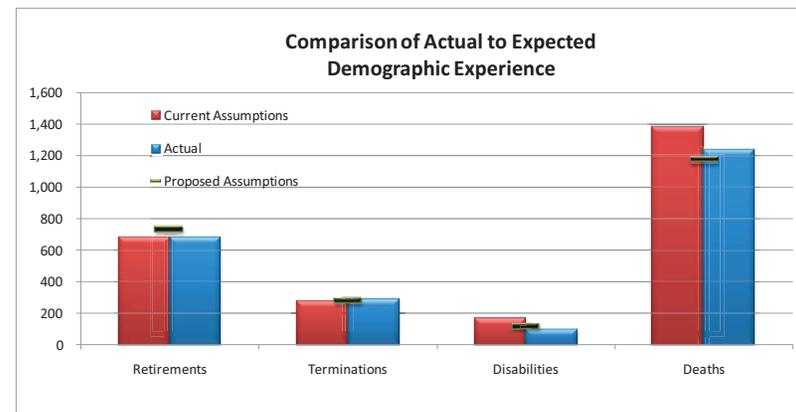
In this section, we look at a summary of experience. This will provide a sense of how well the current assumptions predicted experience in aggregate over the years studied. It will also give an indication as to how the assumptions proposed within this study would have performed during the same time period.

The exposures and decrements are based on the age and service ranges presented in this report.

Summary of Demographic Experience (All Groups)

Rate	Exposure	Actual	Current Assumptions		Proposed Assumptions	
			Expected	A/E Ratio	Expected	A/E Ratio
Retirement	3,537	679	682	100%	733	93%
Termination	13,135	286	277	103%	281	102%
Disability	17,443	101	172	59%	122	83%
Mortality*	56,590	1,235	1,383	89%	1,170	103%

The following chart shows the information above, while also demonstrating the relative magnitude of the decrements in comparison with each other. The bars in the chart represent the actual experience (number of retirements, etc.) versus what was expected based on current assumptions, and what *would have been expected* based on proposed assumptions. While the number of retirements expected under proposed assumptions is higher than the actual number in aggregate, the number expected for Fire, Police, and Judges is more closely in line with actual experience.



* Healthy and disabled mortality combined