



Wisconsin Retirement System
Three-Year Experience Study
January 1, 2000 - December 31, 2002

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Actuaries & Consultants

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November 26, 2003

The Employee Trust Funds Board 801 West Badger Road Madison, Wisconsin 53707

Ladies and Gentlemen:

The results of the *3-year investigation of experience* of the Wisconsin Retirement System are presented in this report. The investigation was made for the purpose of updating the actuarial assumptions used in valuing the actuarial liabilities of the Wisconsin Retirement System in compliance with Section 40.03(5)(b) of the Wisconsin Statutes.

The investigation was based upon the statistical data furnished for annual active member and retired life actuarial valuations, supplemental information furnished by your Secretary and his staff, concerning Participants who died, withdrew, became disabled or retired during the last 3 years and on published historical economic data.

The investigation covered the 3-year period from **January 1, 2000 - December 31, 2002**, and was carried out using generally accepted actuarial principles and techniques.

We believe that the new actuarial assumptions that are the result of this investigation represent a reasonable estimate of past and possible future experience of the Wisconsin Retirement System.

Respectfully submitted,

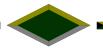
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SUMMARY OF FINDINGS



2000 - 2002 EXPERIENCE STUDY INTRODUCTION

Each year, as of December 31, the liabilities of the Wisconsin Retirement System are valued. In order to perform the valuation, assumptions must be made regarding the future experience of the system with regard to the following risk areas:

- Rates of withdrawal of active Participants.
- Rates of **disability** among active Participants.
- Patterns of salary increases to active Participants.
- Rates of **retirement** among active Participants.
- Rates of **mortality** among active Participants, retirees, and beneficiaries.
- Long-term rates of **investment return** to be generated by the assets of the Fund.

Assumptions should be carefully chosen and continually monitored. A poor initial choice of assumptions or continued use of outdated assumptions can lead to:

- Understated costs resulting in either an inability to pay benefits when due, or sharp increases in required contributions at some point in the future;
- Overstated costs resulting in either benefit levels that are kept below the level that could be supported by the computed rate or an unnecessarily large burden on the current generation of Participants, employers and taxpayers.

A single set of assumptions will not be suitable indefinitely. Conditions change, and our understanding of conditions (whether or not they are changing) also changes.

In recognition of this, Wisconsin statutes require that assumptions used to value the liabilities of the Wisconsin Retirement System be studied in-depth every three years. The package of assumptions is then adjusted to reflect basic experience trends -- but not random year-to-year fluctuations. Actuarial assumptions were last revised following the December 31, 1999 regular actuarial valuation.

2000 - 2002 EXPERIENCE STUDY SUMMARY OF DECREMENT EXPERIENCE

Background: With the exception of mortality, the decrements that we study tend to relate to voluntary human behavior. Human behavior in any short period can be influenced by economic and societal factors that change from time to time. Observed data will very often contain anomalies that cannot be assumed to continue into the future. This happens particularly in smaller groups.

Method: The development of new decrement assumptions begins with development of so-called "crude rates of decrement". The crude rates are the ratios of observed decrement counts to the numbers of people eligible for the decrements. For example, if 100 people retire at age 65 and the study included 400 65year-olds who were eligible for retirement, the crude rate of retirement for age 65 would be 25%. Then, a credibility factor is assigned to the crude rates. The choice of credibility factor may depend on the general reasonableness of the crude rates, consistency of the crude rates with those observed in prior studies, the size of the group, and other external factors. Next, the crude rates are weighted by the credibility factor and averaged with the current rates to produce so-called trial rates. The trial rates are then smoothed and tested for consistency with other rates. After testing and any final adjustments, the smoothed rates become the new assumed rates. In this study, credibility factors ranging from below 10% to over 90% have been used, with most factors falling between 50% and 90%. Lower credibility factors were used when the crude rates exhibited unexpected behavior or were unreasonable or inconsistent with prior studies, or when a small group was involved. Higher factors were used in the case of larger groups where the crude rates exhibited generally reasonable behavior. We have taken into consideration comments made by Milliman USA in connection with their July 5, 2001 actuarial review. In several cases, they recommended using rates closer to actual experience, which we have done where appropriate. General comments on results are provided below.

Rates of Withdrawals from service were moved quite close to the observed rates. Approximately 90% credibility was assigned to the experience rates. Detailed information is presented beginning on page 13.

Disability Observed rates were initially lower than assumed in all groups. However, it appears that there is an understatement of disability cases inherent in the reporting process. Data on page 102 indicates an unusually low number of disabilities in 2002 that probably should not be allowed to influence future assumed rates. Therefore, we adjusted the observed data to account for the potential understatement in the 2002 data. The adjustment was determined by multiplying the observed experience for each group by

the ratio of the total disabled retirees for years 1999-2001 from retiree data information divided by the total observed separations from active service due to disability for years 2000 to 2002. A summary schedule of actual disabled retirees by year of retirement can be found on page 102. Proposed new rates assign 50% credibility to the observed rates after this adjustment was made. The 50% factor was chosen in recognition of the newness of the process that was used to develop the rates. Detailed information begins on page 31.

Pay Increase Rate (Merit and Longevity Portion) was analyzed to see if the correlation with service was stronger than the correlation with age. Results varied by group, but there was enough evidence to support a change to service-based tables. As a result, all groups now assume pay increases as a function of total service. Detailed information begins on page 49.

Normal Retirement Experience in the general male (non-teaching) group indicated more normal retirements at younger ages than expected and fewer at older ages. For females, there were fewer retirements than expected. Results for other groups varied. New assumptions give about 80% - 90% credibility to the observed rates, so that rates of retirement were moved very close to observed rates for most groups. Detailed information begins on page 61.

Early Retirement Experience indicated less early retirements for females in the general group and more than expected for males in the general group and in the public schools. Early retirement rates were adjusted based upon 80% to 90% credibility depending on group size. Detailed information is included with the normal retirement experience beginning on page 61.

Mortality Among Retirees: Mortality rates among retired public employees have been declining for years. This leads to longer lifetimes after retirement and, therefore, to increased costs to the retirement system. A review of the data with respect to retirees (disabled and non-disabled) indicates that a reduction in rates for males is called for at this time. The observed rates for males declined more than we would have expected and we are not certain that the data represents a true effect, therefore, we assigned a credibility factor of about 65% to the male experience. We will continue to monitor this assumption during the next experience period. Detailed information begins on page 86.

Mortality Among Active Members: Active member deaths were slightly above assumed rates for both males and females. Since this difference is small and in the opposite direction of trends we are seeing in other public sector plans, no change was recommended at this time. Detailed information begins on page 86.

Complete listings of all assumptions begin on page 94.

SUMMARY OF DECREMENT EXPERIENCE 2000-2002

		Exp	ected
Decrement Risk Area	Actual	Current	Proposed
Withdrawal - Total			
General (Without Schools)	23,470	23,770	23,334
Public School and University	10,421	10,682	10,442
Protective			
With Social Security	1,308	1,414	1,314
Without Social Security	93	93	93
Executive and Elected	168	148	159
Withdrawal - Service 5 & Up			
General (Without Schools)	4,081	4,797	4,043
Public School and University	2,708	2,902	2,810
Protective			
With Social Security	400	399	399
Without Social Security	52	42	46
Executive and Elected	40	50	44
Disability #			
General (Without Schools)	583	574	574
Public School and University	315	271	290
Protective			
With Social Security	45	76	61
Without Social Security	19	15	16
Executive and Elected	2	6	4
Early Retirement			
General (Without Schools)	4,461	4,685	4,455
Public School and University	4,727	3,750	4,587
Executive and Elected	32	46	34
Normal Retirement			
General (Without Schools) **	2,676	3,475	2,866
Public School and University **	3,343	3,187	3,286
Protective*			
With Social Security	1,086	1,330	1,186
Without Social Security	253	248	252
Executive and Elected	72	123	90
Mortality - Retired Lives			
Normal Retirement			
Male	4,649	5,119	4,805
Female	5,271	5,175	5,175
Disabled Retirement			
Male	401	605	487
Female	375	519	429
Mortality - Active Lives			
Male	483	447	447
Female	374	322	322

^{*} Includes Early Retirements.

^{**} Figures shown are for people below age 70.

[#] Actual figures based on Adjusted Experience.

ECONOMIC ASSUMPTIONS

Economic assumptions include **long-term rates of investment return** (net after expenses) and **wage inflation** (the across-the-board portion of salary increases). Unlike demographic activities, economic activities do not lend themselves to analysis solely on the basis of internal historical patterns because returns are more affected by external forces; namely inflation and general productivity changes which defy accurate long-term prediction. Estimates of economic activities are generally selected on the basis of the expectations in an inflation-free environment and then both are increased by some provision for long-term inflation.

If inflation and/or productivity increases are higher than expected, it will probably result in both actual rates of salary increases and investment return which exceed the assumed rates. Salaries increasing faster than expected produce unexpected liabilities. Investment return exceeding the assumed rates (whether due to manager performance, change in the mix of assets, or general market conditions) results in unanticipated assets. To the extent that inflation, productivity, and other factors have about the same effect on both sides of the balance sheet, these additional assets and liabilities can offset one another over the long-term.

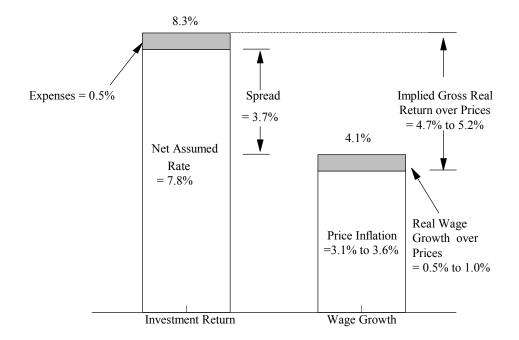
The present experience period includes investment results that are most unusual by long-term standards. While information from the present experience period may be considered in developing new assumptions, long-term historical patterns must necessarily play a much larger role.

Wage inflation. The average rate of increase in National Average Earnings over the last 53 years is slightly higher than the current WRS 4.5% assumption (see schedule on page 8). However, both regional and national average salaries have risen at a slower pace than 4.5% per year since 1981 (the WRS average has been 4.1% annually). The difference between the long-term national averages and WRS experience is related to the excess rates of price and wage inflation during the 1970s which most observers do not expect to see repeated. When the decade of high inflation is factored out, long-term national averages drop below 5%. We believe it is reasonable to assume that the average rate in the future will be similar to the WRS experience rate in the past. Accordingly, we are recommending the wage inflation assumption be changed at this time to 4.1%.

Investment Return. The State of Wisconsin Investment Board advises that 8% is still a reasonable expected return rate for the WRS portfolio. However, in light of experience since March 2000, a small reduction in that assumed rate to 7.8% would provide a margin of safety for the WRS. In particular, fixed income returns are quite low by historical standards, and as the WRS continues to mature, it may eventually need to invest a somewhat higher proportion of its assets in fixed income instruments than it did in the past. Therefore, based upon discussions with WRS staff and upon information presented to the SWIB at the 2003 asset allocation meeting, we are recommending a reduction in the assumed rate of investment return to 7.8%.

Resulting Spread. The combination of 7.8% assumed return and 4.1% assumed rate of payroll growth results in an assumed "spread" of 3.7% (7.8% - 4.1% = 3.7%). This is actually a widening of the assumed spread from the previous assumption of 3.5%. Spreads for balanced portfolios have actually averaged 4.3% over the last 53 years (please see page 8), even including experience through 2002 and including periods of very high price and wage inflation in the late 1970s. We believe that this change in assumed spread is a reasonable move for the WRS.

The relationship between economic assumptions based on a 3.7% spread is illustrated below:



HISTORICAL PATTERNS OF INVESTMENT RETURN, PAY INCREASES & INFLATION

	Gross Market Returns							
Calendar	Bonds	(Long)	Cash		Price	National	Sample Bal	anced Fund
Year	U.S.	Corp.	Equiv.	Stocks	Inflation	Average	Total	Spread:
Period	Treasury	(S&P AA)	(T Bills)	(S&P 500)	(CPI)	Earnings	Return (I)	I - NAE - e
1950-59	(0.1)%	1.0 %	1.9 %	19.4 %	2.2 %	4.5 %	12.2 %	7.2 %
1960-69	1.4 %	1.7 %	3.9 %	7.8 %	2.5 %	4.3 %	5.7 %	0.9 %
1970-79	5.5 %	6.2 %	6.3 %	5.9 %	7.4 %	6.9 %	6.2 %	(1.2)%
1980-89	12.6 %	13.0 %	8.9 %	17.5 %	5.1 %	5.8 %	15.7 %	9.4 %
1990-99	8.8 %	8.4 %	4.9 %	18.2 %	2.9 %	4.2 %	14.4 %	9.7 %
2000	21.5 %	12.9 %	5.9 %	(9.1)%	3.4 %	5.5 %	1.1 %	(4.9)%
2001	3.7 %	10.7 %	3.8 %	(11.9)%	1.6 %	2.4 %	(4.6)%	(7.5)%
2002	17.8 %	16.3 %	1.7 %	(22.1)%	2.7 %	3.0 %	(7.2)%	(10.7)%
Last 53 Years	6.0 %	6.4 %	5.1 %	11.8 %	3.9 %	5.1 %	9.9 %	4.3 %

Sample Balanced Fund						
Equities	60%					
Bonds - Government	20%					
- Corporate	15%					
Cash Equivalents	<u>5%</u>					
	100%					
Fund expenses(e)	0.50%					

Historical Spread					
Observed spread is very sensitive to the observation period, even over long periods, as illustrated below:					
Spread					
4.3%					
3.6%					
4.6%					

SUMMARY OF VALUATION RESULTS

The table below describes hypothetical valuation results at December 31, 2002 with new and old decrement assumptions with indicated spreads. The rate changes are illustrative only since contribution rates have already been set based upon the actual December 31, 2002 valuation results.

		Executive &	Protective		
	General	Elected	With S.S.	Without S.S.	
Present Average 2004 Contribution Rate	10.8%	11.5%	12.5%	15.0%	
Hypothetical changes in average rates due to:					
 New decrements 	0.6	-	0.6	0.6	
• New decrements with 3.7% spread*	0.2	(0.2)	0.4	-	

^{*} The 3.7% spread above is based upon 7.8% investment return and 4.1% wage inflation.

New assumptions will be first used in the December 31, 2003 actuarial valuations, at which time experience gains or losses incurred during 2003 will also be recognized. Consequently, no rate changes are recommended at this time.

OTHER RECOMMENDATIONS

Option Factors are calculated using a 5% interest assumption and the assumed rates of mortality. If a retiring member elects an optional form of benefit, the straight life benefit is multiplied by the appropriate option factor to produce the benefit actually payable. Examples of option factors calculated using the present and now proposed mortality assumptions are shown below. The factors shown illustrate that when mortality experience is improved (i.e., members live longer), that option factors generally increase. The revised factors will result in slightly higher benefits being paid when an optional form is elected. Option factors can be changed based upon this study since the mortality table has been changed. We recommend changing these factors October 1, 2004.

Retiring Participants Ages	5 Years Certain & Life			ears 1 & Life		% (Beneficiary s Younger)
	Present	Proposed	Present	Proposed	Present	Proposed
50	0.998	0.998	0.986	0.986	0.919	0.920
55	0.997	0.997	0.975	0.976	0.900	0.902
60	0.995	0.995	0.955	0.957	0.876	0.878
65	0.991	0.991	0.915	0.919	0.848	0.850
75	0.957	0.961	0.742	0.751	0.779	0.782

Bad Debt Reserve. In conjunction with this study, the valuation method was revised to build in a reserve to account for the possibility that some non-state employers may never be able to pay off their unfunded actuarial accrued liability (UAAL). Accordingly, a reserve of 5% of non-state UAAL was built into the valuation.

Employee Contribution Rate. By statute, rate changes are allocated among Participant Normal Cost, Employer Normal Cost, and a Benefit Adjustment Contribution. The Participant Normal Cost contributions are, in most cases, paid by the employers rather than by the participants. The original intent of the statutory allocation of the rate changes was most likely to permit participants to share in good and bad investment and other experiences. The actual result however, seems to be that, for some members, good experience causes benefits to be decreased, and bad experience causes benefits to be increased. This occurs because good experience decreases contribution rates which decreases future contribution balances, and conversely. Money purchase benefits, refund benefits and some death benefits are based on contribution balances. Consequently, we recommend that policy makers give serious consideration to revising statutes to decouple the participant contribution rate from the employer rate.

Recommended Implementation Schedule. It is recommended that the results of this experience study be implemented in accordance with the following schedule.

Active and Inactive Lives Valuation: 12/31/2003 Valuation Retired Lives Valuation: 12/31/2003 Valuation

Option Factors: 10/01/2004

DURATION OF LONG TERM DISABILITY INSURANCE BENEFITS

Section 50.56(1)(j) of the Wisconsin Administrative Code provides:

"The duration of LTDI benefits for recipients whose LTDI benefit effective date is on or after the date the recipient attains age 61 shall be periodically reviewed and may be revised based on the actuary's determinations, as approved by the Employe Trust Funds Board, so as to provide LTDI benefits meeting equal cost standards under federal age discrimination law. As part of the regular 3-year general investigation under Section 40.03(5)(b), Stats., beginning with the investigation based on data through 1996, the actuary shall determine the appropriate duration for LTDI benefits beginning at and after age 61. The Employe Trust Funds Board shall be responsible for approving any change to the duration of LTDI benefits. If the duration of LTDI benefits is changed, the duration of LTDI benefits being paid as the result of an application received by the department prior to the effective date of the change shall not be affected. Any such revision shall be effective upon promulgation as an amendment to this rule by the group insurance board."

The duration of LTDI benefits referenced in the Code is currently as follows:

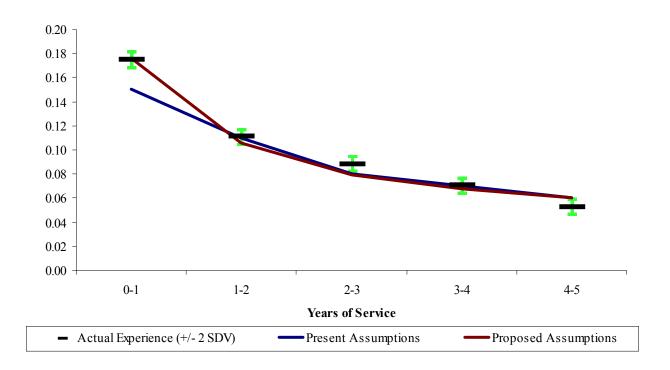
Age at LTDI Effective Date	LTDI Benefit Ends			
Before age 61	Age 65			
Age 61 or 62	Age 66			
Age 63 or 64	Age 67			
Age 65 or 66	Age 68			
Age 67	Age 69			
Age 68	Age 70			
Age 69 or older	12 months after effective date			

EEOC set a safe harbor minimum duration at 5 years, but has said that a shorter minimum duration could be set for persons disabled at advanced ages if the shorter duration was based upon an actuarial sound cost justification. They said further that standard insurance industry data could be relied on until more plan-specific data can be accumulated. The current duration of LTDI benefits is based on standard insurance industry data. There is not sufficient plan data upon which to base an actuarially sound cost justification for a change in the present duration schedule. Therefore, **it is our recommendation that the current duration schedule be continued for the ensuing three-year period.**

STANDARD DEVIATION GRAPH EXAMPLE

The remainder of this section describes a commonly used type of graph shown throughout the report. The description below is intended to aid readers in understanding the graph.

The graph shown below is called a Standard Deviation Graph. The blue line represents the present assumptions used in the valuation. After experience is reviewed for a given decrement, an actual value is computed (based on actual experience) along with its standard deviation. The standard deviation is represented by the green vertical bars on the graph above. If the standard deviation is large, this means that the group being tested is from a small population or the data is somewhat erratic. A small group should have less influence on deriving the new proposed value. In comparison, if the standard deviation has a small value, this means the group being tested is from a large population or that the data is tightly distributed about the mean. Experience where the standard deviation is small should have a greater impact on the decision on the proposed assumption than experience when the standard deviation is large.



WITHDRAWAL EXPERIENCE



GENERAL MALES WITHDRAWAL EXPERIENCE

There were 5,356 withdrawals and 50,040 years of exposure included in the male service based withdrawal investigation and 1,289 withdrawals and 76,146 years of exposure included in the male age based withdrawal investigation. A withdrawal is a separation from active member status for a reason other than disability, death, or retirement and may be either vested or non-vested.

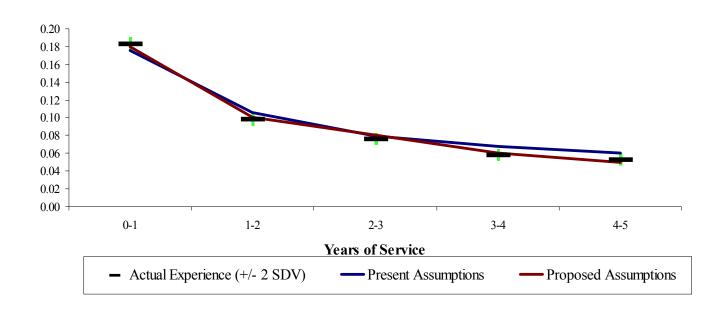
WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

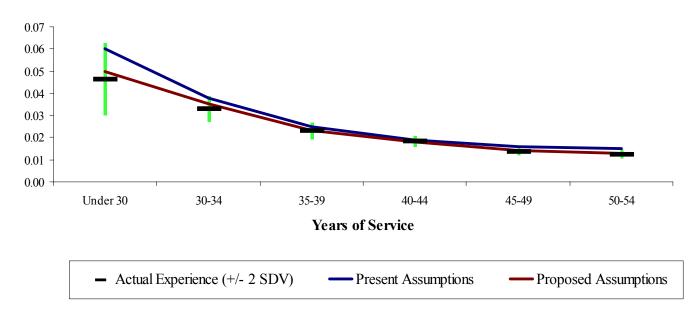
		Number of Withdrawals			W	ithdrawal Ra	tes
Years of	Life Years	Actual	Exp	ected		Expe	ected
Service	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
0-1	14,806	2,707	2,606	2,665	0.1828	0.1760	0.1800
1-2	11,603	1,136	1,230	1,160	0.0979	0.1060	0.1000
2-3	9,524	722	752	762	0.0758	0.0790	0.0800
3-4	7,728	451	526	464	0.0584	0.0680	0.0600
4-5	6,379	340	383	319	0.0533	0.0600	0.0500
Totals	50,040	5,356	5,497	5,370	0.1070	0.1099	0.1073

		Number of Withdrawals			Wi	ithdrawal Ra	te s
	Life Years	Actual	Expo	ecte d		Expo	e cte d
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
Under 30	712	33	43	36	0.0463	0.0600	0.0500
30-34	4,400	145	167	154	0.0330	0.0380	0.0350
35-39	9,479	218	237	218	0.0230	0.0250	0.0230
40-44	16,217	296	308	292	0.0183	0.0190	0.0180
45-49	21,417	297	343	300	0.0139	0.0160	0.0140
50-54	23,921	300	359	311	0.0125	0.0150	0.0130
Totals	76,146	1,289	1,457	1,311	0.0169	0.0191	0.0172

	<u>Actual</u>	Proposed
Current	$\overline{0.0527}$	0.0529
Previous Investigation Results		
1997-1999	0.0531	0.0520
1994-1996	0.0499	0.0478
1991-1993	0.0451	0.0478
1988-1990	0.0412	0.0505
1985-1987	0.0477	0.0523

RATES OF WITHDRAWAL WITH LESS THAN 5 YEARS OF SERVICE





GENERAL FEMALES WITHDRAWAL EXPERIENCE

There were 14,033 withdrawals and 118,506 years of exposure included in the female service based withdrawal investigation and 2,792 withdrawals and 111,837 years of exposure included in the female age based withdrawal investigation. A withdrawal is a separation from active member status for a reason other than disability, death, or retirement and may be either vested or non-vested.

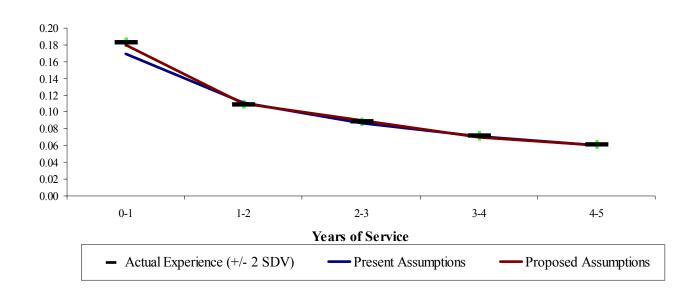
WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

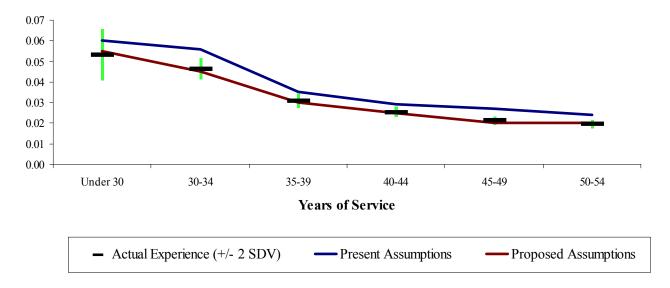
		Number of Withdrawals			\mathbf{W}_{1}	ithdrawal Ra	tes
Years of	Life Years	Actual	Expe	ected		Expo	ected
Service	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
0-1	38,756	7,087	6,550	6,976	0.1829	0.1690	0.1800
1-2	27,125	2,963	3,011	2,984	0.1092	0.1110	0.1100
2-3	21,020	1,858	1,829	1,892	0.0884	0.0870	0.0900
3-4	17,228	1,240	1,223	1,206	0.0720	0.0710	0.0700
4-5	14,377	885	863	863	0.0616	0.0600	0.0600
Totals	118,506	14,033	13,476	13,921	0.1184	0.1137	0.1175

		Numb	Number of Withdrawals			Withdrawal Rates		
	Life Years	Actual	Expo	e cte d		Exp	e cte d	
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed	
Under 30	1,428	76	86	79	0.0532	0.0600	0.0550	
30-34	7,308	339	409	329	0.0464	0.0560	0.0450	
35-39	14,102	436	494	423	0.0309	0.0350	0.0300	
40-44	24,023	613	697	601	0.0255	0.0290	0.0250	
45-49	31,441	669	849	629	0.0213	0.0270	0.0200	
50-54	33,535	659	805	671	0.0197	0.0240	0.0200	
Totals	111,837	2,792	3,340	2,732	0.0250	0.0299	0.0244	

	<u>Actual</u>	Proposed
Current	0.0730	0.0723
Previous Investigation Results		
1997-1999	0.0722	0.0714
1994-1996	0.0650	0.0680
1991-1993	0.0663	0.0761
1988-1990	0.0700	0.0867
1985-1987	0.0806	0.0890

RATES OF WITHDRAWAL WITH LESS THAN 5 YEARS OF SERVICE





MALE PUBLIC SCHOOLS PARTICIPANTS WITHDRAWAL EXPERIENCE

There were 1,303 withdrawals and 19,074 years of exposure included in the male service based withdrawal investigation and 500 withdrawals and 44,134 years of exposure included in the male age based withdrawal investigation. A withdrawal is a separation from active member status for a reason other than disability, death, or retirement and may be either vested or non-vested.

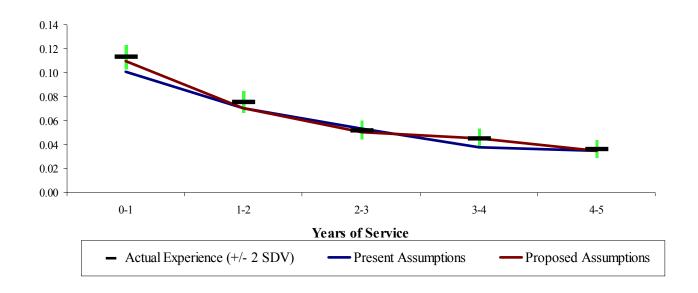
WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

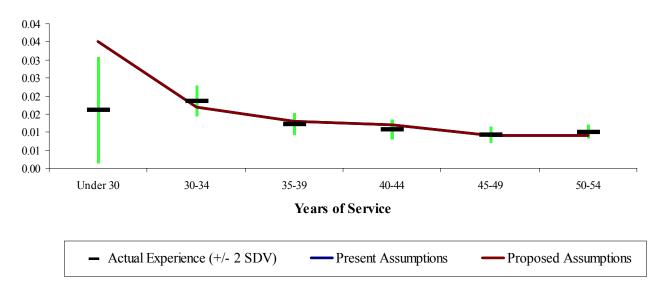
		Number of Withdrawals		Wi	ithdrawal Ra	hdrawal Rates	
Years of	Life Years	Actual	Exp	ected		Exp	ected
Service	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
0-1	4,655	526	470	512	0.1130	0.1010	0.1100
1-2	4,184	315	293	293	0.0753	0.0700	0.0700
2-3	3,720	194	197	186	0.0522	0.0530	0.0500
3-4	3,403	155	129	153	0.0455	0.0380	0.0450
4-5	3,112	113	109	109	0.0363	0.0350	0.0350
Totals	19,074	1,303	1,198	1,253	0.0683	0.0628	0.0657

		Number of Withdrawals			Withdrawal Rates		
	Life Years	Actual	Expo	ected		Expo	e cte d
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
Under 30	310	5	11	11	0.0161	0.0350	0.0350
30-34	4,721	88	80	80	0.0186	0.0170	0.0170
35-39	6,536	80	85	85	0.0122	0.0130	0.0130
40-44	6,976	75	84	84	0.0108	0.0120	0.0120
45-49	9,661	90	87	87	0.0093	0.0090	0.0090
50-54	15,930	162	143	143	0.0102	0.0090	0.0090
Totals	44,134	500	490	490	0.0113	0.0111	0.0111

	<u>Actual</u>	Proposed
Current	0.0285	0.0276
Previous Investigation Results		
1997-1999	0.0233	0.0241
1994-1996	0.0198	0.0238
1991-1993	0.0193	0.0318
1988-1990	0.0218	0.0411
1985-1987	0.0310	0.0470

RATES OF WITHDRAWAL WITH LESS THAN 5 YEARS OF SERVICE





FEMALE PUBLIC SCHOOLS PARTICIPANTS WITHDRAWAL EXPERIENCE

There were 3,702 withdrawals and 51,888 years of exposure included in the female service based withdrawal investigation and 1,503 withdrawals and 101,157 years of exposure included in the female age based withdrawal investigation. A withdrawal is a separation from active member status for a reason other than disability, death, or retirement and may be either vested or non-vested.

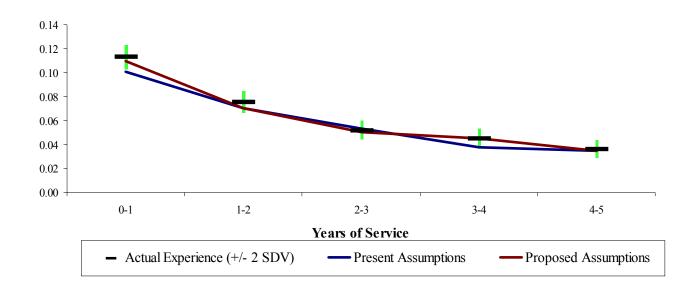
WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

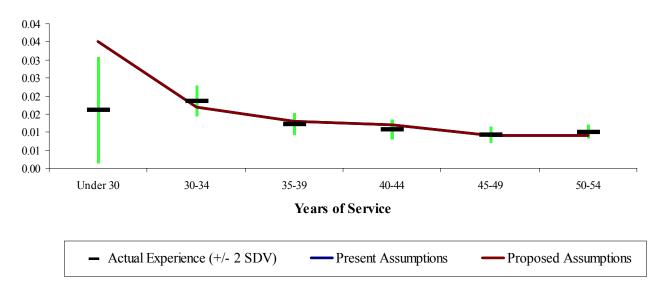
		Numb	Number of Withdrawals		Withdrawal		tes
Years of	Life Years	Actual	Exp	ected		Expe	ected
Service	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
0-1	12,514	1,263	1,251	1,251	0.1009	0.1000	0.1000
1-2	11,585	889	811	927	0.0767	0.0700	0.0800
2-3	10,272	641	616	616	0.0624	0.0600	0.0600
3-4	9,178	505	496	496	0.0550	0.0540	0.0540
4-5	8,339	404	334	367	0.0484	0.0400	0.0440
Totals	51,888	3,702	3,508	3,657	0.0713	0.0676	0.0705

		Numb	Number of Withdrawals			ithdrawal Ra	tes
	Life Years	Actual	Expe	ected		Expo	ected
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
Under 30	1,069	36	43	43	0.0337	0.0400	0.0400
30-34	13,116	424	407	407	0.0323	0.0310	0.0310
35-39	15,526	303	279	279	0.0195	0.0180	0.0180
40-44	16,410	192	213	213	0.0117	0.0130	0.0130
45-49	23,169	239	278	278	0.0103	0.0120	0.0120
50-54	31,867	309	382	382	0.0097	0.0120	0.0120
Totals	101,157	1,503	1,602	1,602	0.0149	0.0158	0.0158

	<u>Actual</u>	Proposed
Current	$\overline{0.0340}$	0.0344
Previous Investigation Results		
1997-1999	0.0315	0.0332
1994-1996	0.0270	0.0352
1991-1993	0.0277	0.0501
1988-1990	0.0327	0.0711
1985-1987	0.0470	0.0830

RATES OF WITHDRAWAL WITH LESS THAN 5 YEARS OF SERVICE





MALE UNIVERSITY WITHDRAWAL EXPERIENCE

There were 1,199 withdrawals and 9,964 years of exposure included in the male service based withdrawal investigation and 332 withdrawals and 11,336 years of exposure included in the male age based withdrawal investigation. A withdrawal is a separation from active member status for a reason other than disability, death, or retirement and may be either vested or non-vested.

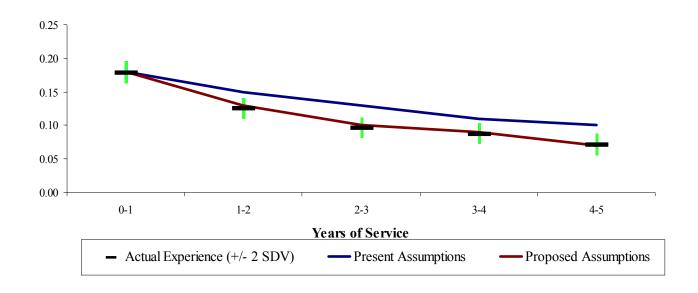
WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

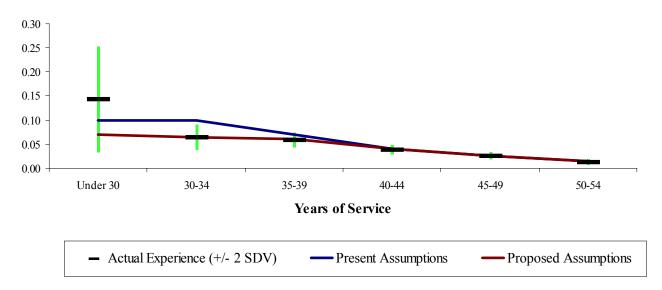
		Number of Withdrawals		W	ithdrawal Ra	tes	
Years of	Life Years	Actual	Expe	ected		Exp	ected
Service	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
0-1	2,591	464	466	466	0.1791	0.1800	0.1800
1-2	2,471	309	371	321	0.1251	0.1500	0.1300
2-3	1,967	190	256	197	0.0966	0.1300	0.1000
3-4	1,624	142	179	146	0.0874	0.1100	0.0900
4-5	1,311	94	131	92	0.0717	0.1000	0.0700
Totals	9,964	1,199	1,403	1,222	0.1203	0.1408	0.1226

		Numb	Number of Withdrawals		Withdrawal Rates		
	Life Years	Actual	Exp	e cte d		Expo	e cte d
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
Under 30	42	6	4	3	0.1429	0.1000	0.0700
30-34	450	29	45	29	0.0644	0.1000	0.0650
35-39	1,187	70	83	71	0.0590	0.0700	0.0600
40-44	2,281	88	91	91	0.0386	0.0400	0.0400
45-49	3,474	88	87	87	0.0253	0.0250	0.0250
50-54	3,902	51	59	59	0.0131	0.0150	0.0150
Totals	11.336	332	369	340	0.0293	0.0326	0.0300

	<u>Actual</u>	Proposed
Current	0.0719	0.0733
Previous Investigation Results		
1997-1999	0.0734	0.0732
1994-1996	0.0552	0.0707
1991-1993	0.0657	0.0844
1988-1990	0.0655	0.1028
1985-1987	0.0725	0.1124

RATES OF WITHDRAWAL WITH LESS THAN 5 YEARS OF SERVICE





FEMALE UNIVERSITY WITHDRAWAL EXPERIENCE

There were 1,509 withdrawals and 10,897 years of exposure included in the female service based withdrawal investigation and 373 withdrawals and 10,547 years of exposure included in the female age based withdrawal investigation. A withdrawal is a separation from active member status for a reason other than disability, death, or retirement and may be either vested or non-vested.

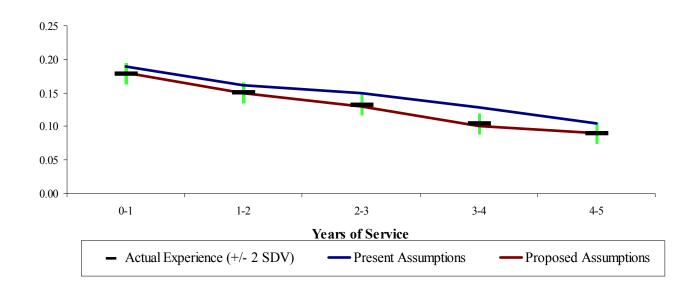
WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

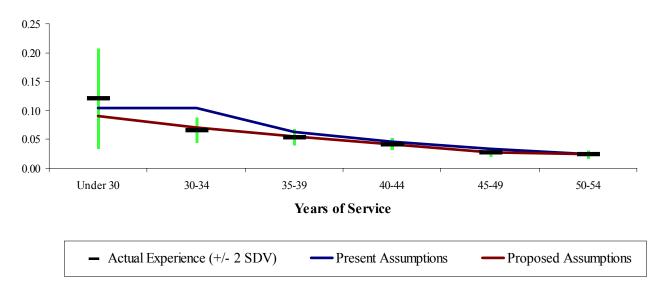
		Number of Withdrawals		r of Withdrawals		Withdrawal Rates	
Years of	Life Years	Actual	Exp	ected		Exp	ected
Service	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
0-1	2,834	505	536	510	0.1782	0.1890	0.1800
1-2	2,668	402	432	400	0.1507	0.1620	0.1500
2-3	2,169	287	323	282	0.1323	0.1490	0.1300
3-4	1,781	185	228	178	0.1039	0.1280	0.1000
4-5	1,445	130	152	130	0.0900	0.1050	0.0900
Totals	10,897	1,509	1,671	1,500	0.1385	0.1533	0.1377

		Number of Withdrawals			Withdrawal Rates			
	Life Years	Actual	Expo	ected		Expo	e cte d	
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed	
Under 30	58	7	6	5	0.1207	0.1050	0.0900	
30-34	612	40	64	43	0.0654	0.1050	0.0700	
35-39	1,353	72	85	74	0.0532	0.0630	0.0550	
40-44	2,165	91	100	91	0.0420	0.0460	0.0420	
45-49	3,002	81	102	84	0.0270	0.0340	0.0280	
50-54	3,357	82	84	81	0.0244	0.0250	0.0240	
Totals	10,547	373	441	378	0.0354	0.0418	0.0358	

	<u>Actual</u>	Proposed
Current	0.0878	0.0876
Previous Investigation Results		
1997-1999	0.0827	0.0887
1994-1996	0.0887	0.0967
1991-1993	0.0952	0.1178
1988-1990	0.0917	0.1472
1985-1987	0.1152	0.1609

RATES OF WITHDRAWAL WITH LESS THAN 5 YEARS OF SERVICE





PROTECTIVE WITH SOCIAL SECURITY WITHDRAWAL EXPERIENCE

There were 908 withdrawals and 16,615 years of exposure included in the service based withdrawal investigation and 400 withdrawals and 34,406 years of exposure included in the age based withdrawal investigation. A withdrawal is a separation from active member status for a reason other than disability, death, or retirement and may be either vested or non-vested.

WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

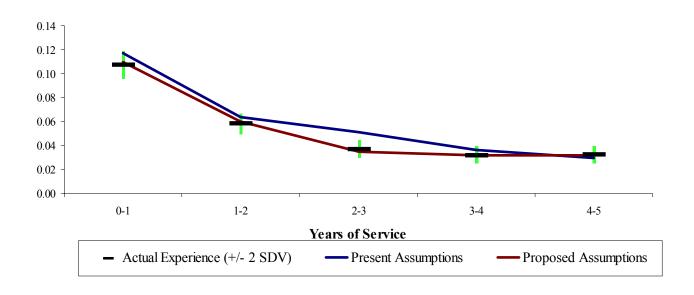
		Numb	Number of Withdrawals			Withdrawal Rates			
Years of	Life Years	Actual	Exp	ected		Expe	ected		
Service	Exposure	Experience	Present	Proposed	Actual	Present	Proposed		
0-1	3,463	371	405	381	0.1071	0.1170	0.1100		
1-2	3,683	215	236	221	0.0584	0.0640	0.0600		
2-3	3,367	125	172	118	0.0371	0.0510	0.0350		
3-4	3,136	101	113	100	0.0322	0.0360	0.0320		
4-5	2,966	96	89	95	0.0324	0.0300	0.0320		
Totals	16,615	908	1,015	915	0.0546	0.0611	0.0551		

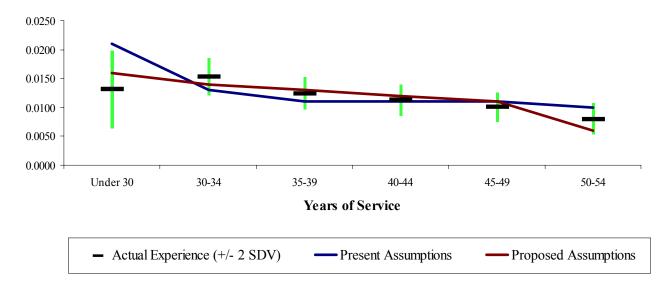
		Number of Withdrawals			Withdrawal Rates			
	Life Years	Actual	Expe	ected		Expected		
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed	
Under 30	1,218	16	26	19	0.0131	0.0210	0.0160	
30-34	6,440	99	84	90	0.0154	0.0130	0.0140	
35-39	7,218	90	79	94	0.0125	0.0110	0.0130	
40-44	7,167	81	79	86	0.0113	0.0110	0.0120	
45-49	7,147	72	79	79	0.0101	0.0110	0.0110	
50-54	5,216	42	52	31	0.0081	0.0100	0.0060	
Totals	34,406	400	399	399	0.0116	0.0116	0.0116	

	<u>Actual</u>	Proposed
Current	0.0256	0.0258
Previous Investigation Results		
1997-1999	0.0269	0.0248
1994-1996	0.0212	0.0246
1991-1993	0.0208	0.0273
1988-1990	0.0238	0.0332
1985-1987	0.0282	0.0357

PROTECTIVE WITH SOCIAL SECURITY

RATES OF WITHDRAWAL WITH LESS THAN 5 YEARS OF SERVICE





PROTECTIVE WITHOUT SOCIAL SECURITY WITHDRAWAL EXPERIENCE

There were 41 withdrawals and 1,807 years of exposure included in the service based withdrawal investigation and 52 withdrawals and 6,142 years of exposure included in the age based withdrawal investigation. A withdrawal is a separation from active member status for a reason other than disability, death, or retirement and may be either vested or non-vested.

WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

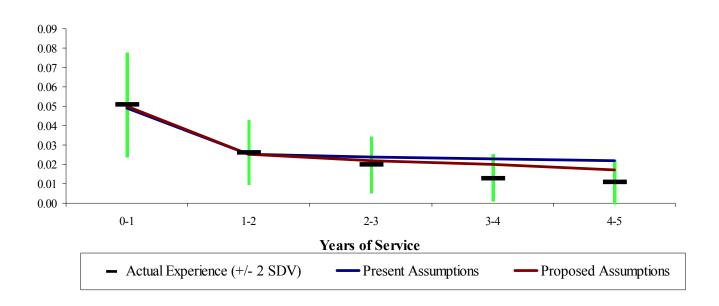
		Number of Withdrawals			Withdrawal Rates			
Years of	Life Years	Actual	Expe	ected		Expo	ected	
Service	Exposure	Experience	Present	Proposed	Actual	Present	Proposed	
0-1	276	14	14	14	0.0507	0.0490	0.0500	
1-2	382	10	10	10	0.0262	0.0250	0.0250	
2-3	403	8	10	9	0.0199	0.0240	0.0220	
3-4	385	5	9	8	0.0130	0.0230	0.0200	
4-5	361	4	8	6	0.0111	0.0220	0.0170	
Totals	1,807	41	51	47	0.0227	0.0282	0.0260	

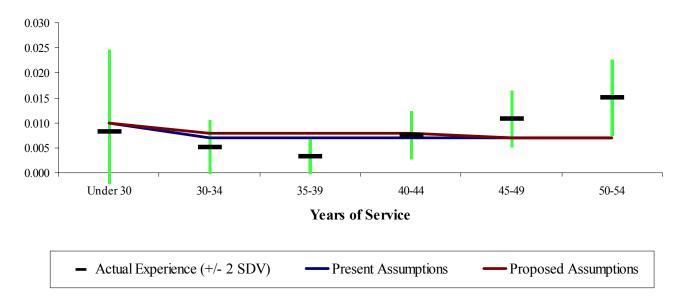
		Number of Withdrawals			Withdrawal Rates			
	Life Years	Actual	Expe	e c te d		Expected		
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed	
Under 30	122	1	1	1	0.0082	0.0100	0.0100	
30-34	776	4	5	6	0.0052	0.0070	0.0080	
35-39	1,238	4	9	10	0.0032	0.0070	0.0080	
40-44	1,458	11	10	12	0.0075	0.0070	0.0080	
45-49	1,483	16	10	10	0.0108	0.0070	0.0070	
50-54	1,065	16	7	7	0.0150	0.0070	0.0070	
Totals	6,142	52	42	46	0.0085	0.0068	0.0075	

	<u>Actual</u>	Proposed
Current	0.0117	0.0117
Previous Investigation Results		
1997-1999	0.0112	0.0115
1994-1996	0.0080	0.0102
1991-1993	0.0111	0.0130
1988-1990	0.0108	0.0150
1985-1987	0.0109	0.0163

PROTECTIVE WITHOUT SOCIAL SECURITY

RATES OF WITHDRAWAL WITH LESS THAN 5 YEARS OF SERVICE





EXECUTIVE AND ELECTED WITHDRAWAL EXPERIENCE

There were 128 withdrawals and 1,464 years of exposure included in the service based withdrawal investigation and 40 withdrawals and 1,872 years of exposure included in the age based withdrawal investigation. A withdrawal is a separation from active member status for a reason other than disability, death, or retirement and may be either vested or non-vested.

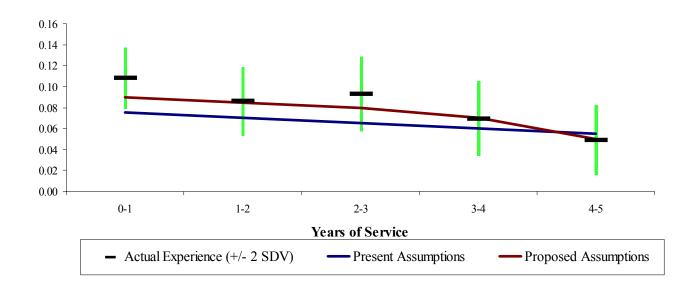
WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

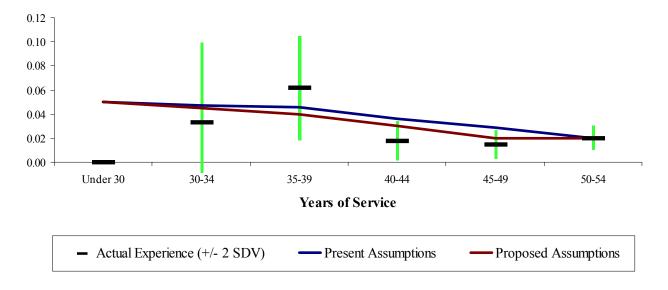
		Number of Withdrawals			Withdrawal Rates			
Years of	Life Years	Actual	Expe	ected		Expo	ected	
Service	Exposure	Experience	Present	Proposed	Actual	Present	Proposed	
0-1	472	51	35	42	0.1081	0.0750	0.0900	
1-2	314	27	22	27	0.0860	0.0700	0.0850	
2-3	280	26	18	22	0.0929	0.0650	0.0800	
3-4	216	15	13	15	0.0694	0.0600	0.0700	
4-5	182	9	10	9	0.0495	0.0550	0.0500	
Totals	1,464	128	98	115	0.0874	0.0669	0.0786	

		Number of Withdrawals			Withdrawal Rates			
	Life Years	Actual	Expe	e c te d		Exp	e cte d	
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed	
Under 30	3	0	0	0	0.0000	0.0500	0.0500	
30-34	30	1	1	1	0.0333	0.0470	0.0450	
35-39	130	8	6	5	0.0615	0.0460	0.0400	
40-44	285	5	10	9	0.0175	0.0360	0.0300	
45-49	481	7	14	10	0.0146	0.0290	0.0200	
50-54	943	19	19	19	0.0201	0.0200	0.0200	
Totals	1,872	40	50	44	0.0214	0.0267	0.0235	

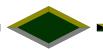
	<u>Actual</u>	Proposed
Current	0.0504	0.0477
Previous Investigation Results		
1997-1999	0.0489	0.0450
1994-1996	0.0498	0.0398
1991-1993	0.0582	0.0511
1988-1990	0.0615	0.0455
1985-1987	0.0666	0.0379

RATES OF WITHDRAWAL WITH LESS THAN 5 YEARS OF SERVICE





DISABILITY EXPERIENCE



GENERAL MALES DISABILITY EXPERIENCE

There were 284 disability benefit claims reported for the 3-year period and 99,058 years of exposure (exposure includes active members with 5 or more years of service).

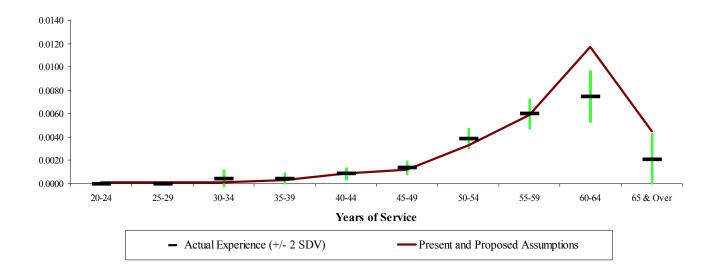
DISABLED MEMBERS WITH 5 OR MORE YEARS OF SERVICE

			Number of Withdrawals					wal Rates
	Life Years	Actual	Adjusted	Expec	ete d	Actual	Exp	ected
Age	Exposure	Experience	Experience*	Present	Proposed	Adjusted	Present	Proposed
20-24	11	0	0	0	0	0.0000	0.0001	0.0001
25-29	684	0	0	0	0	0.0000	0.0001	0.0001
30-34	4,328	1	2	0	0	0.0005	0.0001	0.0001
35-39	9,371	2	4	3	3	0.0004	0.0003	0.0003
40-44	16,073	7	14	14	14	0.0009	0.0009	0.0009
45-49	21,276	15	29	26	26	0.0014	0.0012	0.0012
50-54	23,795	47	92	79	79	0.0039	0.0033	0.0033
55-59	15,338	47	92	90	90	0.0060	0.0059	0.0059
60-64	6,290	24	47	74	74	0.0075	0.0117	0.0117
65 & Over	1,892	2	4	9	9	0.0021	0.0045	0.0045
Totals	99,058	145	284	295	294	0.0029	0.0030	0.0030

	<u>Actual</u>	Proposea
Current	0.0029*	0.0030
Previous Investigation Results		
1997-1999	0.0024	0.0026
1994-1996	0.0025	0.0027
1991-1993	0.0034	0.0033
1988-1990	0.0032	
1985-1987	0.0030	

^{*}Actual experience was adjusted as described on page 3.

GENERAL MALES DISABILITY EXPERIENCE



GENERAL FEMALES DISABILITY EXPERIENCE

There were 299 disability benefit claims reported for the 3-year period and 150,161 years of exposure (exposure includes active members with 5 or more years of service).

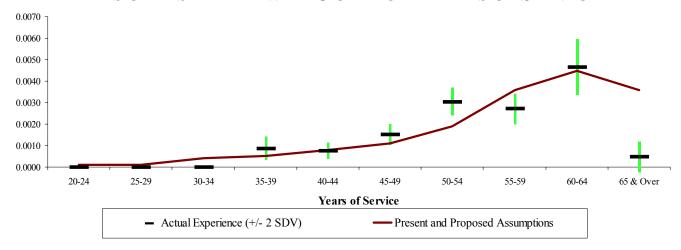
DISABLED MEMBERS WITH 5 OR MORE YEARS OF SERVICE

		Number of Withdrawals			Withdrawal Rates			
	Life Years	Actual	Adjuste d	Expec	eted	Actual	Exp	ected
Age	Exposure	Experience	Experience*	Present	Proposed	Adjusted	Present	Proposed
20-24	20	0	0	0	0	0.0000	0.0001	0.0001
25-29	1,370	0	0	0	0	0.0000	0.0001	0.0001
30-34	7,138	0	0	3	3	0.0000	0.0004	0.0004
35-39	13,887	6	12	7	7	0.0009	0.0005	0.0005
40-44	23,721	9	18	19	19	0.0008	0.0008	0.0008
45-49	31,118	24	47	34	34	0.0015	0.0011	0.0011
50-54	33,231	52	101	63	63	0.0030	0.0019	0.0019
55-59	23,613	33	64	85	85	0.0027	0.0036	0.0036
60-64	11,790	28	55	53	53	0.0047	0.0045	0.0045
65 & Over	4,273	1	2	15	15	0.0005	0.0036	0.0036
Totals	150,161	153	299	279	280	0.0020	0.0019	0.0019

	<u>Actual</u>	Proposed
Current	0.0020*	0.0019
Previous Investigation Results		
1997-1999	0.0014	0.0017
1994-1996	0.0018	0.0021
1991-1993	0.0018	0.0023
1988-1990	0.0021	
1985-1987	0.0019	

^{*}Actual experience was adjusted as described on page 3.

GENERAL FEMALES DISABILITY EXPERIENCE



MALE PUBLIC SCHOOLS DISABILITY EXPERIENCE

There were 96 disability benefit claims reported for the 3-year period and 56,993 years of exposure (exposure includes active members with 5 or more years of service).

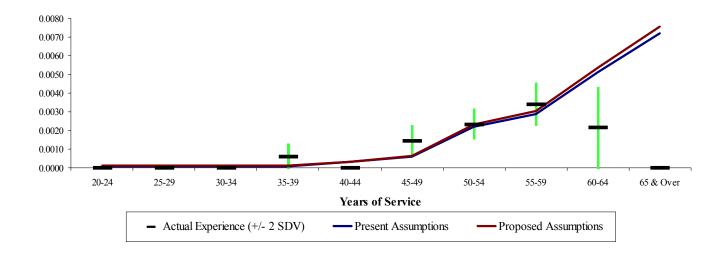
DISABLED MEMBERS WITH 5 OR MORE YEARS OF SERVICE MALE PUBLIC SCHOOLS

			Number of Withdrawals					Withdrawal Rates	
	Life Years	Actual	Adjusted	Exped	eted	Actual	Exp	ected	
Age	Exposure	Experience	Experience*	Present	Proposed	Adjusted	Present	Proposed	
20-24	1	0	0	0	0	0.0000	0.0001	0.0001	
25-29	306	0	0	0	0	0.0000	0.0001	0.0001	
30-34	4,677	0	0	0	0	0.0000	0.0001	0.0001	
35-39	6,497	2	4	1	1	0.0006	0.0001	0.0001	
40-44	6,938	0	0	2	2	0.0000	0.0003	0.0003	
45-49	9,620	7	14	6	6	0.0015	0.0006	0.0006	
50-54	15,859	19	37	35	37	0.0023	0.0022	0.0023	
55-59	10,881	19	37	32	33	0.0034	0.0029	0.0030	
60-64	1,869	2	4	10	10	0.0021	0.0051	0.0054	
65 & Over	345	0	0	2	3	0.0000	0.0072	0.0076	
Totals	56,993	49	96	88	92	0.0017	0.0015	0.0016	

	<u>Actual</u>	<u> Propose a</u>
Current	0.0017*	0.0016
Previous Investigation Results		
1997-1999	0.0013	0.0014
1994-1996	0.0016	0.0016
1991-1993	0.0014	0.0015
1988-1990	0.0010	
1985-1987	0.0011	

^{*}Actual experience was adjusted as described on page 3.

MALE PUBLIC SCHOOLS DISABILITY EXPERIENCE



FEMALE PUBLIC SCHOOLS DISABILITY EXPERIENCE

There were 197 disability benefit claims reported for the 3-year period and 123,243 years of exposure (exposure includes active members with 5 or more years of service).

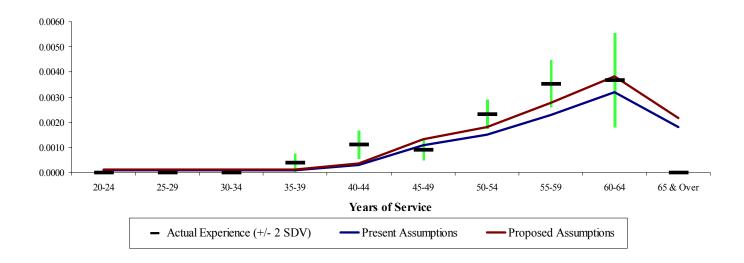
DISABLED MEMBERS WITH 5 OR MORE YEARS OF SERVICE

			Number of Withdrawals					wal Rates
	Life Years	Actual	Adjusted	Expec	eted	Actual	Exp	ected
Age	Exposure	Experience	Experience*	Present	Proposed	Adjusted	Present	Proposed
20-24	3	0	0	0	0	0.0000	0.0001	0.0001
25-29	1,048	0	0	0	0	0.0000	0.0001	0.0001
30-34	12,904	0	0	1	2	0.0000	0.0001	0.0001
35-39	15,376	3	6	2	2	0.0004	0.0001	0.0001
40-44	16,319	9	18	5	6	0.0011	0.0003	0.0004
45-49	23,055	11	21	25	30	0.0009	0.0011	0.0013
50-54	31,731	38	74	48	57	0.0023	0.0015	0.0018
55-59	17,573	32	62	40	49	0.0035	0.0023	0.0028
60-64	4,353	8	16	14	17	0.0037	0.0032	0.0038
65 & Over	881	0	0	2	2	0.0000	0.0018	0.0022
Totals	123,243	101	197	137	164	0.0016	0.0011	0.0013

<u>Actual</u>	<u>Proposed</u>
0.0016*	0.0013
0.0010	0.0010
0.0011	0.0011
0.0009	0.0011
0.0009	
0.0006	
	0.0016* 0.0010 0.0011 0.0009 0.0009

^{*}Actual experience was adjusted as described on page 3.

FEMALE PUBLIC SCHOOLS DISABILITY EXPERIENCE



MALE UNIVERSITY DISABILITY EXPERIENCE

There were 14 disability benefit claims reported for the 3-year period and 18,334 years of exposure (exposure includes active members with 5 or more years of service).

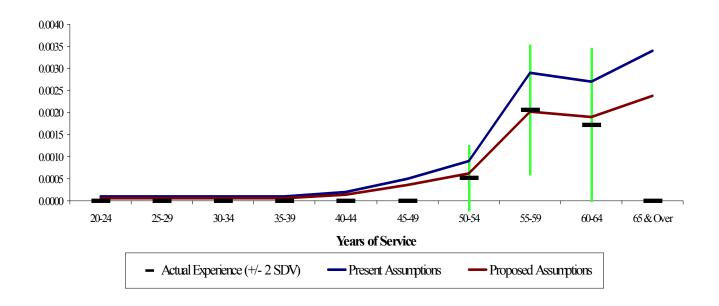
DISABLED MEMBERS WITH 5 OR MORE YEARS OF SERVICE

			Number of Withdrawals					wal Rates
	Life Years	Actual	Adjusted	Expec	eted	Actual	Exp	ected
Age	Exposure	Experience	Experience*	Present	Proposed	Adjusted	Present	Proposed
20-24	0	0	0	0	0	0.0000	0.0001	0.0001
25-29	39	0	0	0	0	0.0000	0.0001	0.0001
30-34	435	0	0	0	0	0.0000	0.0001	0.0001
35-39	1,152	0	0	0	0	0.0000	0.0001	0.0001
40-44	2,237	0	0	0	0	0.0000	0.0002	0.0001
45-49	3,430	0	0	2	1	0.0000	0.0005	0.0004
50-54	3,877	1	2	3	2	0.0005	0.0009	0.0006
55-59	3,865	4	8	11	8	0.0021	0.0029	0.0020
60-64	2,318	2	4	6	4	0.0017	0.0027	0.0019
65 & Over	981	0	0	3	2	0.0000	0.0034	0.0024
Totals	18,334	7	14	25	19	0.0008	0.0014	0.0010

	<u>Actual</u>	Proposed
Current	0.0008*	0.0010
Previous Investigation Results		
1997-1999	0.0008	0.0011
1994-1996	0.0010	0.0011
1991-1993	0.0009	0.0015
1988-1990	0.0012	
1985-1987	0.0009	

^{*}Actual experience was adjusted as described on page 3.

MALE UNIVERSITY DISABILITY EXPERIENCE



FEMALE UNIVERSITY DISABILITY EXPERIENCE

There were 8 disability benefit claims reported for the 3-year period and 14,071 years of exposure (exposure includes active members with 5 or more years of service).

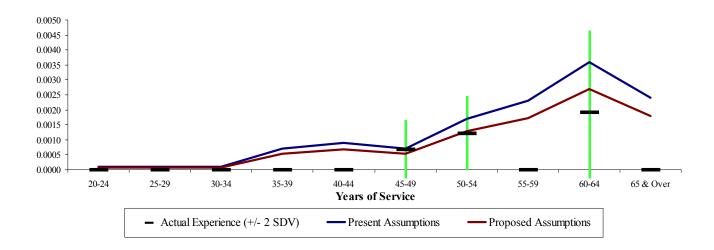
DISABLED MEMBERS WITH 5 OR MORE YEARS OF SERVICE

			Number of Withdrawals					wal Rates
	Life Years	Actual	Adjusted	Expec	ted	Actual	Exp	ected
Age	Exposure	Experience	Experience*	Present	Proposed	Adjusted	Present	Proposed
20-24	0	0	0	0	0	0.0000	0.0001	0.0001
25-29	54	0	0	0	0	0.0000	0.0001	0.0001
30-34	592	0	0	0	0	0.0000	0.0001	0.0001
35-39	1,317	0	0	1	1	0.0000	0.0007	0.0005
40-44	2,119	0	0	2	1	0.0000	0.0009	0.0007
45-49	2,962	1	2	2	2	0.0007	0.0007	0.0005
50-54	3,317	2	4	6	4	0.0012	0.0017	0.0013
55-59	2,372	0	0	5	4	0.0000	0.0023	0.0017
60-64	1,045	1	2	4	3	0.0019	0.0036	0.0027
65 & Over	293	0	0	1	1	0.0000	0.0024	0.0018
Totals	14,071	4	8	21	15	0.0006	0.0015	0.0011

	Actual	<u> Proposea</u>
Current	0.0006*	0.0011
Previous Investigation Results		
1997-1999	0.0010	0.0012
1994-1996	0.0003	0.0014
1991-1993	0.0010	0.0018
1988-1990	0.0016	
1985-1987	0.0018	

^{*}Actual experience was adjusted as described on page 3.

FEMALE UNIVERSITY DISABILITY EXPERIENCE



PROTECTIVE WITH SOCIAL SECURITY DISABILITY EXPERIENCE

There were 45 disability benefit claims reported for the 3-year period and 36,233 years of exposure (exposure includes active members with 5 or more years of service).

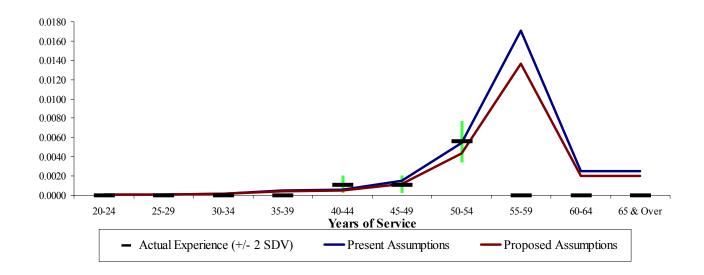
DISABLED MEMBERS WITH 5 OR MORE YEARS OF SERVICE

		Number of Withdrawals			Withdrawal Rates			
	Life Years	Actual	Adjuste d	Exp	ected	Actual	Expe	cted
Age	Exposure	Experience	Experience*	Present	Proposed	Adjusted	Present	Proposed
20-24	8	0	0	0	0	0.0000	0.0001	0.0001
25-29	1,202	0	0	0	0	0.0000	0.0001	0.0001
30-34	6,390	0	0	1	1	0.0000	0.0002	0.0002
35-39	7,173	0	0	4	3	0.0000	0.0005	0.0004
40-44	7,128	4	8	4	3	0.0011	0.0006	0.0005
45-49	7,113	4	8	11	9	0.0011	0.0015	0.0012
50-54	5,203	15	29	28	22	0.0056	0.0054	0.0043
55-59	1,605	0	0	27	22	0.0000	0.0171	0.0137
60-64	358	0	0	1	1	0.0000	0.0025	0.0020
65 & Over	53	0	0	0	0	0.0000	0.0025	0.0020
Totals	36,233	23	45	76	61	0.0012	0.0021	0.0017

	<u>Actual</u>	Proposed
Current	0.0012*	0.0017
Previous Investigation Results		
1997-1999	0.0016	0.0019
1994-1996	0.0019	0.0019
1991-1993	0.0013	0.0018
1988-1990	0.0015	
1985-1987	0.0015	

^{*}Actual experience was adjusted as described on page 3.

PROTECTIVE WITH SOCIAL SECURITY DISABILITY EXPERIENCE



PROTECTIVE WITHOUT SOCIAL SECURITY DISABILITY EXPERIENCE

There were 19 disability benefit claims reported for the 3-year period and 6,335 years of exposure (exposure includes active members with 5 or more years of service).

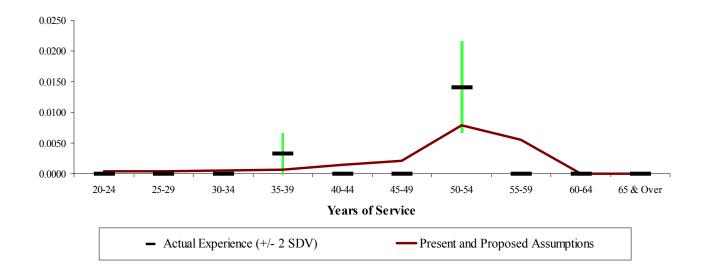
DISABLED MEMBERS WITH 5 OR MORE YEARS OF SERVICE

		Number of Withdrawals				Wi	ithdrawal Ra	tes
	Life Years	Actual	Adjusted	Expected		Actual	Expe	cted
Age	Exposure	Experience	Experience*	Present	Proposed	Adjusted	Present	Proposed
20-24	0	0	0	0	0	0.0000	0.0004	0.0004
25-29	121	0	0	0	0	0.0000	0.0004	0.0004
30-34	774	0	0	0	0	0.0000	0.0005	0.0005
35-39	1,237	2	4	1	1	0.0032	0.0006	0.0006
40-44	1,452	0	0	2	2	0.0000	0.0015	0.0015
45-49	1,475	0	0	3	3	0.0000	0.0021	0.0021
50-54	1,061	8	15	8	8	0.0141	0.0079	0.0079
55-59	183	0	0	1	1	0.0000	0.0055	0.0055
60-64	32	0	0	0	0	0.0000	0.0000	0.0000
65 & Over	0	0	0	0	0	0.0000	0.0000	0.0000
Totals	6,335	10	19	15	16	0.0030	0.0024	0.0025

	<u>Actual</u>	Proposed
Current	0.0030*	0.0025
Previous Investigation Results		
1997-1999	0.0017	0.0021
1994-1996	0.0031	0.0029
1991-1993	0.0013	0.0024
1988-1990	0.0024	
1985-1987	0.0024	

^{*}Actual experience was adjusted as described on page 3.

PROTECTIVE WITHOUT SOCIAL SECURITY DISABILITY EXPERIENCE



EXECUTIVE & ELECTED DISABILITY EXPERIENCE

There were 2 Executive & Elected disability benefit claim reported for the 3-year period and 3,152 years of exposure (exposure includes active members with 5 or more years of service).

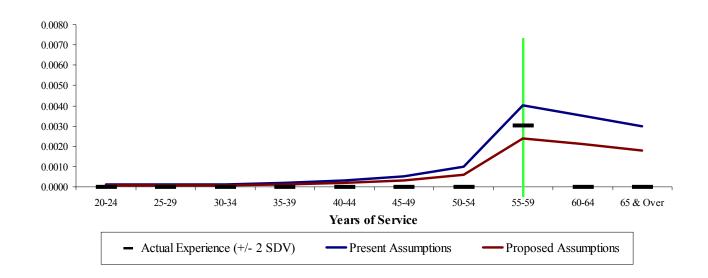
DISABLED MEMBERS WITH 5 OR MORE YEARS OF SERVICE

		Number of Withdrawals			Wi	ithdrawal Ra	tes	
	Life Years	Actual	Actual	Expected		Actual Expected		cted
Age	Exposure	Experience	Experience*	Present	Proposed	Adjusted	Present	Proposed
20-24	0	0	0	0	0	0.0000	0.0001	0.0001
25-29	3	0	0	0	0	0.0000	0.0001	0.0001
30-34	29	0	0	0	0	0.0000	0.0001	0.0001
35-39	126	0	0	0	0	0.0000	0.0002	0.0001
40-44	282	0	0	0	0	0.0000	0.0003	0.0002
45-49	477	0	0	0	0	0.0000	0.0005	0.0003
50-54	779	0	0	1	0	0.0000	0.0010	0.0006
55-59	661	1	2	3	2	0.0030	0.0040	0.0024
60-64	400	0	0	1	1	0.0000	0.0035	0.0021
65 & Over	395	0	0	1	1	0.0000	0.0030	0.0018
Totals	3,152	1	2	6	4	0.0006	0.0019	0.0012

	<u>Actual</u>	Proposed
Current	0.0006*	0.0012
Previous Investigation Results		
1997-1999	0.0007	0.0012
1994-1996	0.0003	0.0007
1991-1993		
1988-1990		
1985-1987		

^{*}Actual experience was adjusted as described on page 3.

EXECUTIVE & ELECTED DISABILITY EXPERIENCE



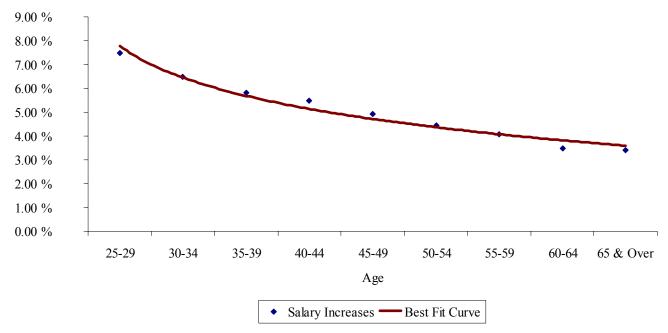
PAY INCREASES MERIT & LONGEVITY PORTION



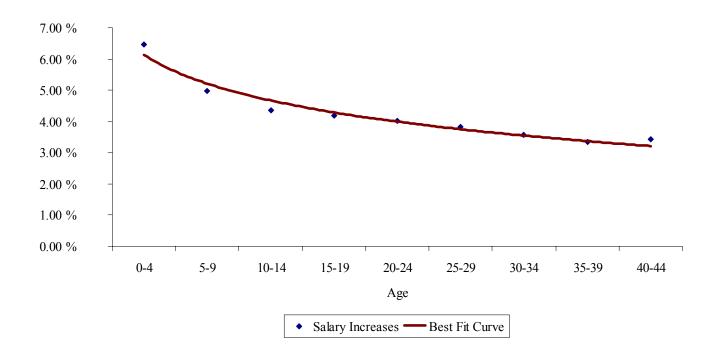
GENERAL MEMBERS MERIT & LONGEVITY PAY INCREASE ASSUMPTIONS

The graphs shown below illustrate gross rates of salary increases for General Members, according to age and service respectively. They demonstrate that rates of salary increases are highly correlated with both age and service. New rates (merit and longevity portion only) are shown on the following page.

GROSS SALARY INCREASES – CORRELATION BY AGE



GROSS SALARY INCREASES - CORRELATION BY SERVICE



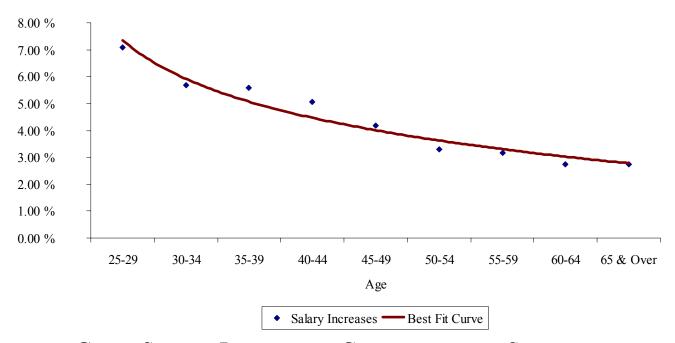
GENERAL MEMBERS MERIT & LONGEVITY PAY INCREASE ASSUMPTIONS

Service Group Beginning				Service Group Beginning
of Year	Number	Actual	Proposed	of Year
0-4	96,505	3.96 %	3.50 %	0-4
5-9	73,914	1.98 %	2.00 %	5-9
10-14	58,630	1.35 %	1.40 %	10-14
15-19	39,322	1.19 %	1.20 %	15-19
20-24	33,794	1.03 %	1.00 %	20-24
25-29	19,073	0.81 %	0.80 %	25-29
30-34	6,905	0.57 %	0.60 %	30-34
35-39	1,080	0.35 %	0.40 %	35-39
40-44	163	0.43 %	0.40 %	40-44
Total	329,386			Total

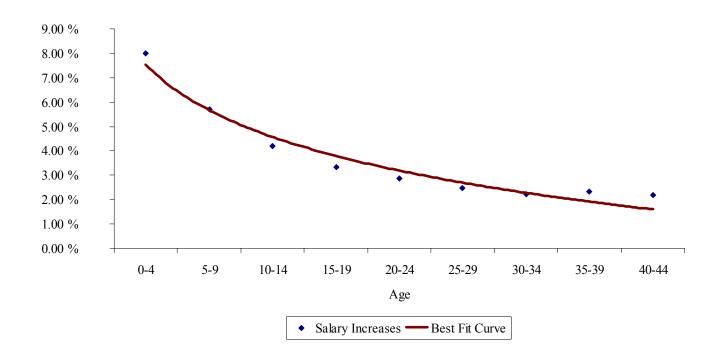
PUBLIC SCHOOL MEMBERS MERIT & LONGEVITY PAY INCREASE ASSUMPTIONS

The graphs shown below illustrate rates of gross salary increases for Public School Members, according to age and service respectively. They demonstrate that rates of salary increases are highly correlated with both age and service. New rates (merit and longevity portion only) are shown on the following page.

GROSS SALARY INCREASES – CORRELATION BY AGE



GROSS SALARY INCREASES – CORRELATION BY SERVICE



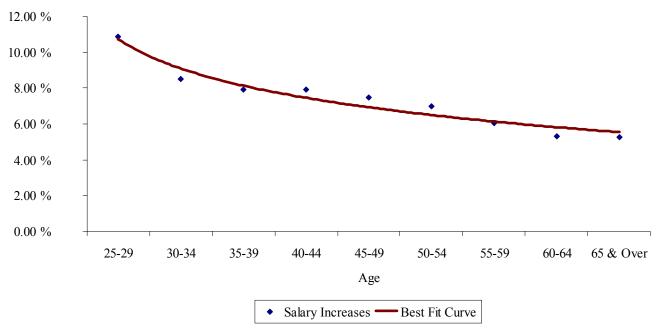
PUBLIC SCHOOL MEMBERS MERIT & LONGEVITY PAY INCREASE ASSUMPTIONS

Service Group Beginning				Service Group Beginning
of Year	Number	Actual	Proposed	of Year
0-4	47,535	5.60 %	5.80 %	0-4
5-9	45,133	3.29 %	3.50 %	5-9
10-14	38,541	1.78 %	2.00 %	10-14
15-19	24,209	0.94 %	1.20 %	15-19
20-24	25,063	0.46 %	0.80 %	20-24
25-29	23,874	0.06 %	0.40 %	25-29
30-34	11,215	0.00 %	0.10 %	30-34
35-39	978	0.00 %	0.10 %	35-39
40-44	139	0.00 %	0.10 %	40-44
Total	216,687			Total

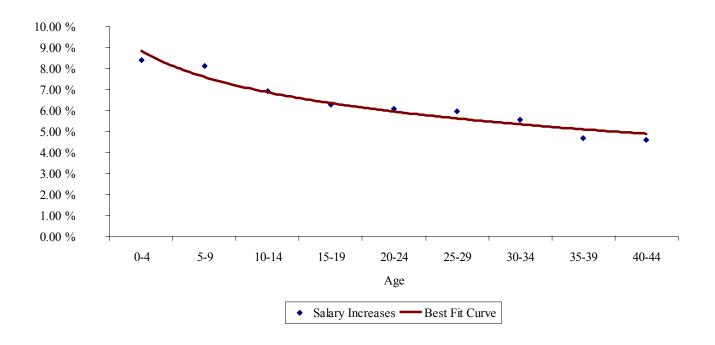
UNIVERSITY MEMBERS MERIT & LONGEVITY PAY INCREASE ASSUMPTIONS

The graphs shown below illustrate rates of gross salary increases for University Members, according to age and service respectively. They demonstrate that rates of salary increases are highly correlated with both age and service. New rates (merit and longevity portion only) are shown on the following page.

GROSS SALARY INCREASES – CORRELATION BY AGE



GROSS SALARY INCREASES - CORRELATION BY SERVICE



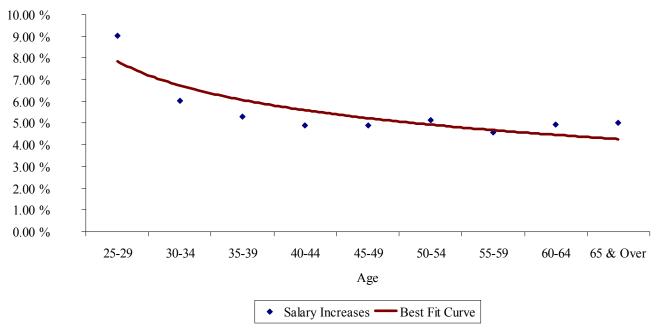
UNIVERSITY MEMBERS MERIT & LONGEVITY PAY INCREASE ASSUMPTIONS

Service Group Beginning				Service Group Beginning
of Year	Number	Actual	Proposed	of Year
0-4	12,120	4.41 %	4.40 %	0-4
5-9	8,512	4.11 %	4.10 %	5-9
10-14	7,351	2.90 %	2.90 %	10-14
15-19	5,043	2.28 %	2.30 %	15-19
20-24	3,811	2.09 %	2.10 %	20-24
25-29	2,862	1.96 %	2.00 %	25-29
30-34	1,840	1.56 %	1.60 %	30-34
35-39	395	0.68 %	0.70 %	35-39
40-44	67	0.59 %	0.60 %	40-44
Total	42,001			Total

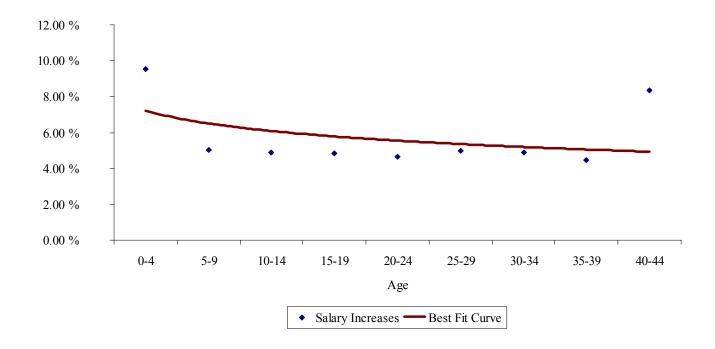
PROTECTIVE MEMBERS WITH SOCIAL SECURITY MERIT & LONGEVITY PAY INCREASE ASSUMPTIONS

The graphs shown below illustrate rates of gross salary increases for Protective Members With Social Security, according to age and service respectively. New rates (merit and longevity portion only) are shown on the following page.

GROSS SALARY INCREASES – CORRELATION BY AGE



GROSS SALARY INCREASES - CORRELATION BY SERVICE



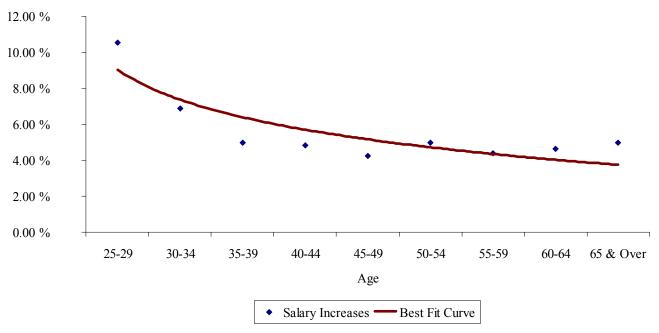
PROTECTIVE MEMBERS WITH SOCIAL SECURITY MERIT & LONGEVITY PAY INCREASE ASSUMPTIONS

Service Group Beginning				Service Group Beginning
of Year	Number	Actual	Proposed	of Year
0-4	10,938	5.55 %	4.00 %	0-4
5-9	11,619	1.05 %	2.00 %	5-9
10-14	8,605	0.87 %	1.50 %	10-14
15-19	6,009	0.86 %	1.00 %	15-19
20-24	5,176	0.63 %	1.00 %	20-24
25-29	2,689	1.00 %	1.00 %	25-29
30-34	528	0.88 %	0.50 %	30-34
35-39	32	0.47 %	0.50 %	35-39
40-44	70	4.36 %	0.50 %	40-44
Total	45,666			Total

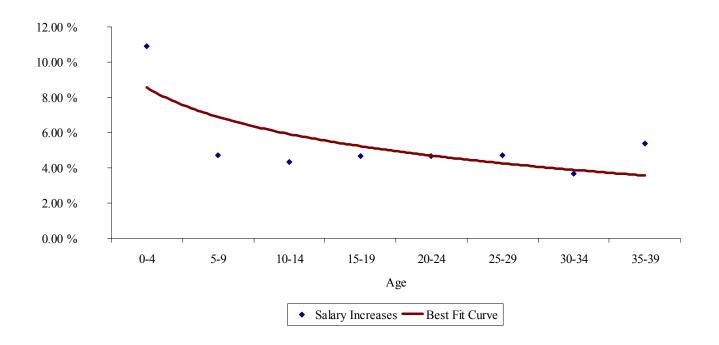
PROTECTIVE MEMBERS WITHOUT SOCIAL SECURITY MERIT & LONGEVITY PAY INCREASE ASSUMPTIONS

The graphs shown below illustrate rates of gross salary increases for Protective Members Without Social Security, according to age and service respectively. New rates (merit and longevity portion only) are shown on the following page.

GROSS SALARY INCREASES – CORRELATION BY AGE



GROSS SALARY INCREASES - CORRELATION BY SERVICE



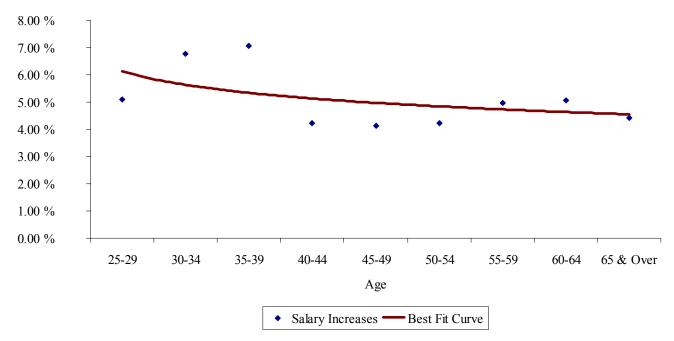
PROTECTIVE MEMBERS WITHOUT SOCIAL SECURITY MERIT & LONGEVITY PAY INCREASE ASSUMPTIONS

Service Group Beginning				Service Group Beginning
of Year	Number	Actual	Proposed	of Year
0-4	1,472	6.71 %	4.50 %	0-4
5-9	1,469	0.50 %	2.00 %	5-9
10-14	1,586	0.12 %	0.50 %	10-14
15-19	1,246	0.48 %	0.50 %	15-19
20-24	1,044	0.45 %	0.50 %	20-24
25-29	548	0.51 %	0.50 %	25-29
30-34	81	0.00 %	0.50 %	30-34
35-39	6	1.16 %	0.50 %	35-39
Total	7,452			Total

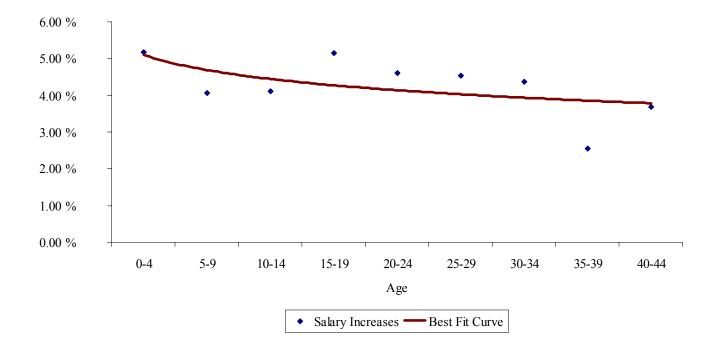
EXECUTIVE AND ELECTED MEMBERS MERIT & LONGEVITY PAY INCREASE ASSUMPTIONS

The graphs shown below illustrate rates of gross salary increases for Executive and Elected Members, according to age and service respectively. New rates (merit and longevity portion only) are shown on the following page.

GROSS SALARY INCREASES - CORRELATION BY AGE



GROSS SALARY INCREASES – CORRELATION BY SERVICE



EXECUTIVE AND ELECTED MEMBERS MERIT & LONGEVITY PAY INCREASE ASSUMPTIONS

Service Group Beginning				Service Group Beginning
of Year	Number	Actual	Proposed	of Year
0-4	861	1.18 %	1.20 %	0-4
5-9	682	0.06 %	1.10 %	5-9
10-14	637	0.11 %	1.00 %	10-14
15-19	562	1.16 %	0.90 %	15-19
20-24	483	0.60 %	0.70 %	20-24
25-29	291	0.54 %	0.50 %	25-29
30-34	100	0.37 %	0.40 %	30-34
35-39	23	0.00 %	0.00 %	35-39
40-44	8	0.00 %	0.00 %	40-44
Total	3,647			Total

NORMAL & EARLY RETIREMENT EXPERIENCE



GENERAL MALES NORMAL RETIREMENT EXPERIENCE

There were 1,571 age and service unreduced retirements and 5,706 life years of exposure (exposure includes active members eligible for unreduced retirement) in the male retirement investigation.

SUMMARY OF MALE AGE & SERVICE UNREDUCED RETIREMENT EXPERIENCE

	Life	Numl	Number of Retirements		Re	tirement Ra	tes
	Years	Actual	Expo	Expected		Expo	ected
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
57	804	219	201.0	225.0	0.2724	0.2500	0.2800
58	697	210	174.0	195.0	0.3013	0.2500	0.2800
59	575	162	144.0	161.0	0.2817	0.2500	0.2800
60	457	129	114.0	128.0	0.2823	0.2500	0.2800
61	348	102	97.0	104.0	0.2931	0.2800	0.3000
62	335	129	157.0	134.0	0.3851	0.4700	0.4000
63	231	97	104.0	92.0	0.4199	0.4500	0.4000
64	128	45	58.0	45.0	0.3516	0.4500	0.3500
65	628	192	283.0	220.0	0.3057	0.4500	0.3500
66	398	122	127.0	139.0	0.3065	0.3200	0.3500
67	237	39	69.0	36.0	0.1646	0.2900	0.1500
68	166	21	40.0	25.0	0.1265	0.2400	0.1500
69	126	24	28.0	19.0	0.1905	0.2200	0.1500
70 & Up	576	80	69.0	86.0	0.1389	0.1200	0.1500
Total	5,706	1,571	1,665.0	1,609.0	0.2753	0.2918	0.2820

	<u>Actual</u>	Proposed
Current	$\overline{0.2753}$	0.2820
Previous Investigation Results		
1997-1999	0.2666	0.2732
1994-1996	0 3297	0 2998

GENERAL MALES EARLY RETIREMENT EXPERIENCE

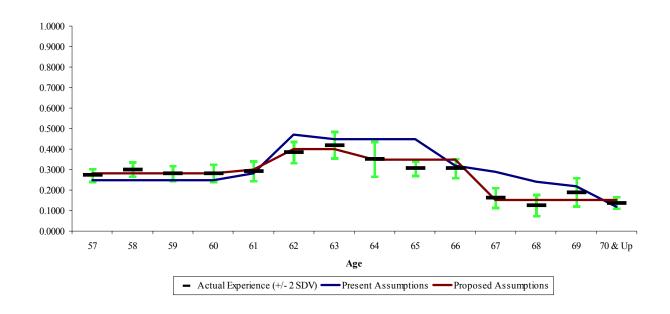
There were 1,697 age and service reduced retirements and 19,416 life years of exposure (exposure includes active members eligible for reduced retirement) in the male retirement investigation.

SUMMARY OF MALE AGE & SERVICE REDUCED RETIREMENT EXPERIENCE

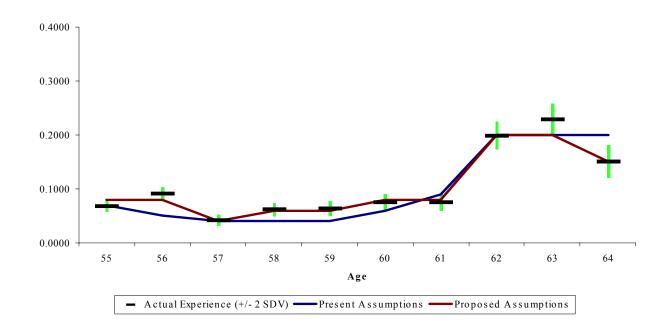
	Life	Number of Retirements			Retirement Rates		
	Years	Actual	Expected			Expected	
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
55	4,421	298	309.0	354.0	0.0674	0.0700	0.0800
56	3,672	336	184.0	294.0	0.0915	0.0500	0.0800
57	2,240	94	90.0	90.0	0.0420	0.0400	0.0400
58	1,959	121	78.0	118.0	0.0618	0.0400	0.0600
59	1,722	110	69.0	103.0	0.0639	0.0400	0.0600
60	1,466	110	88.0	117.0	0.0750	0.0600	0.0800
61	1,234	93	111.0	99.0	0.0754	0.0900	0.0800
62	1,165	232	233.0	233.0	0.1991	0.2000	0.2000
63	913	209	183.0	183.0	0.2289	0.2000	0.2000
64	624	94	125.0	94.0	0.1506	0.2000	0.1500
Total	19,416	1,697	1,470.0	1,685.0	0.0874	0.0758	0.0868

	<u>Actual</u>	Proposed
Current	0.0874	0.0868
Previous Investigation Results		
1997-1999	0.0755	0.0773
1994-1996	0.0876	0.0876
1991-1993		
1988-1990		
1985-1987		

RATES OF NORMAL RETIREMENT GENERAL MALES



RATES OF EARLY RETIREMENT GENERAL MALES



GENERAL FEMALES NORMAL RETIREMENT EXPERIENCE

There were 1,384 age and service unreduced retirements and 6,439 life years of exposure (exposure includes active members eligible for unreduced retirement) in the female retirement investigation.

SUMMARY OF FEMALE AGE & SERVICE UNREDUCED RETIREMENT EXPERIENCE

	Life	Number of Retirements			Retirement Rates		
	Years	Actual	Expected			Expected	
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
57	397	80	107.0	107.0	0.2015	0.2700	0.2700
58	341	88	92.0	92.0	0.2581	0.2700	0.2700
59	260	58	70.0	65.0	0.2231	0.2700	0.2500
60	200	39	56.0	50.0	0.1950	0.2800	0.2500
61	166	44	56.0	42.0	0.2651	0.3400	0.2500
62	131	41	66.0	39.0	0.3130	0.5000	0.3000
63	105	35	53.0	37.0	0.3333	0.5000	0.3500
64	79	27	40.0	28.0	0.3418	0.5000	0.3500
65	1,310	343	655.0	393.0	0.2618	0.5000	0.3000
66	888	232	346.0	266.0	0.2613	0.3900	0.3000
67	548	83	164.0	110.0	0.1515	0.3000	0.2000
68	427	66	107.0	64.0	0.1546	0.2500	0.1500
69	333	49	67.0	50.0	0.1471	0.2000	0.1500
70 & Up	1,254	199	251.0	188.0	0.1587	0.2000	0.1500
Total	6,439	1,384	2,130.0	1,531.0	0.2149	0.3308	0.2378

	<u>Actual</u>	Proposed
Current	0.2149	0.2378
Previous Investigation Results		
1997-1999	0.2651	0.3218
1994-1996	0.2890	0.3091

GENERAL FEMALES EARLY RETIREMENT EXPERIENCE

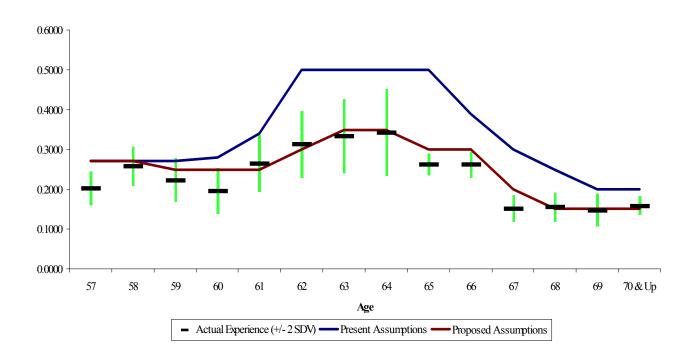
There were 2,764 age and service reduced retirements and 35,286 life years of exposure (exposure includes active members eligible for reduced retirement) in the female retirement investigation.

SUMMARY OF FEMALE AGE & SERVICE REDUCED RETIREMENT EXPERIENCE

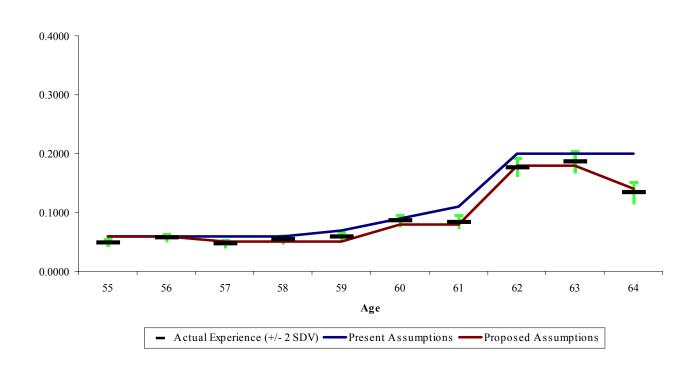
	Life	Number of Retirements		Retirement Rates			
	Years	Actual	Expected			Expected	
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
55	6,175	306	370.0	370.0	0.0496	0.0600	0.0600
56	5,304	304	318.0	318.0	0.0573	0.0600	0.0600
57	4,251	203	255.0	213.0	0.0478	0.0600	0.0500
58	3,954	215	237.0	198.0	0.0544	0.0600	0.0500
59	3,651	217	256.0	183.0	0.0594	0.0700	0.0500
60	3,277	283	295.0	262.0	0.0864	0.0900	0.0800
61	2,781	235	306.0	222.0	0.0845	0.1100	0.0800
62	2,507	444	501.0	451.0	0.1771	0.2000	0.1800
63	1,959	365	392.0	353.0	0.1863	0.2000	0.1800
64	1,427	192	285.0	200.0	0.1345	0.2000	0.1400
Total	35,286	2,764	3,215.0	2,770.0	0.0783	0.0912	0.0785

	<u>Actual</u>	Proposed
Current	$\overline{0.0783}$	0.0785
Previous Investigation Results		
1997-1999	0.0879	0.0924
1994-1996	0.0952	0.1026

NORMAL RETIREMENT GENERAL FEMALES



RATES OF EARLY RETIREMENT GENERAL FEMALES



PUBLIC SCHOOL MALES NORMAL RETIREMENT EXPERIENCE

There were 1,571 age and service unreduced retirements and 4,423 life years of exposure (exposure includes active members eligible for unreduced retirement) in the male retirement investigation.

SUMMARY OF MALE AGE & SERVICE UNREDUCED RETIREMENT EXPERIENCE

	Life	Number of Retirements		Retirement Rates		tes	
	Years	Actual	Expe	ected		Expo	ected
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
57	1,267	219	380.0	317.0	0.1728	0.3000	0.2500
58	870	210	261.0	218.0	0.2414	0.3000	0.2500
59	619	162	186.0	155.0	0.2617	0.3000	0.2500
60	412	129	124.0	124.0	0.3131	0.3000	0.3000
61	274	102	82.0	96.0	0.3723	0.3000	0.3500
62	206	129	93.0	124.0	0.6262	0.4500	0.6000
63	119	97	54.0	60.0	0.8151	0.4500	0.5000
64	71	45	32.0	36.0	0.6338	0.4500	0.5000
65	208	192	114.0	146.0	0.9231	0.5500	0.7000
66	127	122	64.0	89.0	0.9606	0.5000	0.7000
67	63	39	25.0	32.0	0.6190	0.4000	0.5000
68	47	21	19.0	24.0	0.4468	0.4000	0.5000
69	36	24	14.0	18.0	0.6667	0.4000	0.5000
70 & Up	104	80	42.0	52.0	0.7692	0.4000	0.5000
Total	4,423	1,571	1,490.0	1,491.0	0.3552	0.3369	0.3371

	<u>Actual</u>	Proposed
Current	0.3552	0.3371
Previous Investigation Results		
1997-1999	0.4213	0.3229
1994-1996	0.3149	0.2632

PUBLIC SCHOOL MALES EARLY RETIREMENT EXPERIENCE

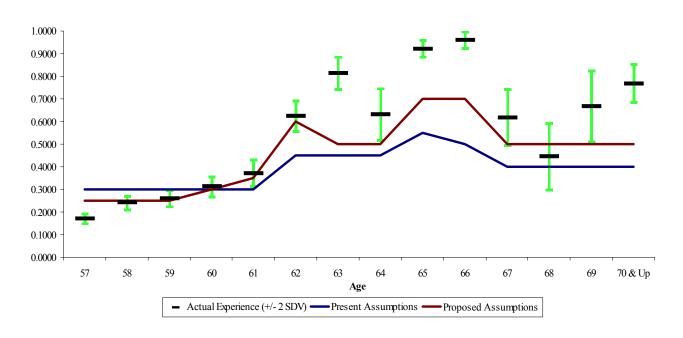
There were 1,691 age and service reduced retirements and 10,298 life years of exposure (exposure includes active members eligible for reduced retirement) in the male retirement investigation.

SUMMARY OF MALE AGE & SERVICE REDUCED RETIREMENT EXPERIENCE

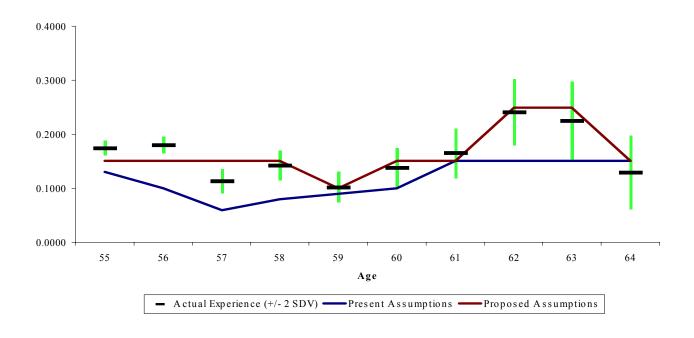
	Life	Number of Retirements			Retirement Rates		
	Years	Actual	Expo	ected		Exp	ected
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
55	3,933	685	511.0	590.0	0.1742	0.1300	0.1500
56	3,024	545	302.0	454.0	0.1802	0.1000	0.1500
57	986	111	59.0	148.0	0.1126	0.0600	0.1500
58	704	100	56.0	106.0	0.1420	0.0800	0.1500
59	512	52	46.0	51.0	0.1016	0.0900	0.1000
60	405	56	41.0	61.0	0.1383	0.1000	0.1500
61	279	46	42.0	42.0	0.1649	0.1500	0.1500
62	212	51	32.0	53.0	0.2406	0.1500	0.2500
63	142	32	21.0	36.0	0.2254	0.1500	0.2500
64	101	13	15.0	15.0	0.1287	0.1500	0.1500
Total	10,298	1,691	1,125.0	1,556.0	0.1642	0.1093	0.1511

	<u>Actual</u>	Proposed
Current	0.1642	0.1511
Previous Investigation Results		
1997-1999	0.1034	0.1043
1994-1996	0.1209	0.1028

RATES OF NORMAL RETIREMENT PUBLIC SCHOOL MALES



RATES OF EARLY RETIREMENT PUBLIC SCHOOL MALES



PUBLIC SCHOOL FEMALES NORMAL RETIREMENT EXPERIENCE

There were 1,252 age and service unreduced retirements and 4,140 life years of exposure (exposure includes active members eligible for unreduced retirement) in the female retirement investigation.

SUMMARY OF FEMALE AGE & SERVICE UNREDUCED RETIREMENT EXPERIENCE

	Life	Numb	Number of Retirements			tirement Ra	tes
	Years	Actual	Expo	ected		Expo	ected
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
57	981	292	245.0	294.0	0.2977	0.2500	0.3000
58	686	221	151.0	206.0	0.3222	0.2200	0.3000
59	440	115	97.0	132.0	0.2614	0.2200	0.3000
60	328	107	82.0	98.0	0.3262	0.2500	0.3000
61	251	88	58.0	88.0	0.3506	0.2300	0.3500
62	200	75	72.0	80.0	0.3750	0.3600	0.4000
63	130	46	33.0	45.0	0.3538	0.2500	0.3500
64	101	26	40.0	25.0	0.2574	0.4000	0.2500
65	378	122	151.0	113.0	0.3228	0.4000	0.3000
66	200	55	62.0	50.0	0.2750	0.3100	0.2500
67	114	28	23.0	29.0	0.2456	0.2000	0.2500
68	80	20	16.0	16.0	0.2500	0.2000	0.2000
69	65	13	13.0	13.0	0.2000	0.2000	0.2000
70 & Up	186	44	37.0	37.0	0.2366	0.2000	0.2000
Total	4,140	1,252	1,080.0	1,226.0	0.3024	0.2609	0.2961

	<u>Actual</u>	Proposed
Current	0.3024	0.2961
Previous Investigation Results		
1997-1999	0.3297	0.2617
1994-1996	0.1846	0.2284

PUBLIC SCHOOL FEMALES EARLY RETIREMENT EXPERIENCE

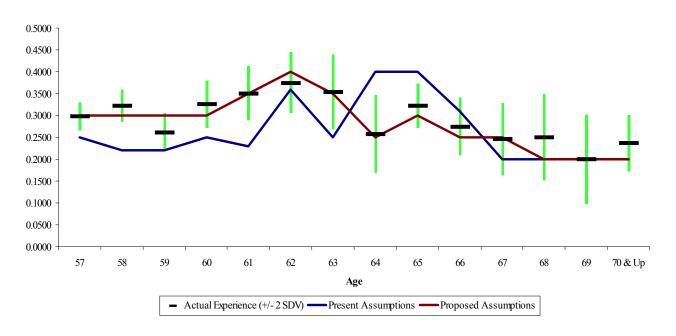
There were 2,560 age and service reduced retirements and 20,559 life years of exposure (exposure includes active members eligible for reduced retirement) in the female retirement investigation.

SUMMARY OF FEMALE AGE & SERVICE REDUCED RETIREMENT EXPERIENCE

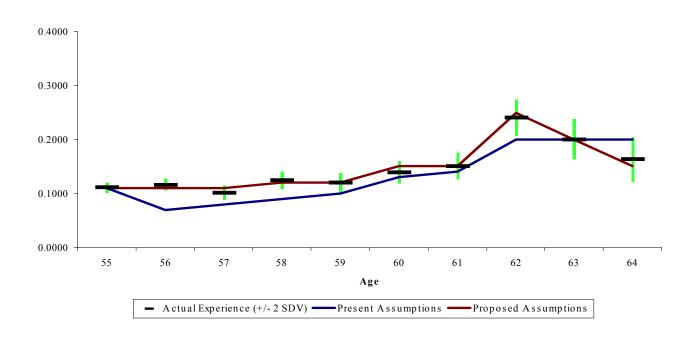
	Life	Number of Retirements			Retirement Rates		
	Years	Actual	Expected		Expected		ected
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
55	5,953	663	655.0	655.0	0.1114	0.1100	0.1100
56	4,475	520	313.0	492.0	0.1162	0.0700	0.1100
57	2,529	257	202.0	278.0	0.1016	0.0800	0.1100
58	2,089	260	188.0	251.0	0.1245	0.0900	0.1200
59	1,670	200	167.0	200.0	0.1198	0.1000	0.1200
60	1,306	182	170.0	196.0	0.1394	0.1300	0.1500
61	948	143	133.0	142.0	0.1508	0.1400	0.1500
62	736	177	147.0	184.0	0.2405	0.2000	0.2500
63	504	101	101.0	101.0	0.2004	0.2000	0.2000
64	349	57	70.0	52.0	0.1633	0.2000	0.1500
Total	20,559	2,560	2,146.0	2,551.0	0.1245	0.1044	0.1241

	<u>Actual</u>	Proposed
Current	0.1245	0.1241
Previous Investigation Results		
1997-1999	0.1110	0.1075
1994-1996	0.1210	0.1067

RATES OF NORMAL RETIREMENT PUBLIC SCHOOL FEMALES



RATES OF EARLY RETIREMENT PUBLIC SCHOOL FEMALES



UNIVERSITY MALES NORMAL RETIREMENT EXPERIENCE

There were 571 age and service unreduced retirements and 2,809 life years of exposure (exposure includes active members eligible for unreduced retirement) in the male retirement investigation.

SUMMARY OF MALE AGE & SERVICE UNREDUCED RETIREMENT EXPERIENCE

	Life	Number of Retirements		Retirement Rates		tes	
	Years	Actual	Expe	ected		Expo	ected
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
57	134	34	27.0	34.0	0.2537	0.2000	0.2500
58	201	41	32.0	40.0	0.2040	0.1600	0.2000
59	252	51	38.0	50.0	0.2024	0.1500	0.2000
60	269	49	43.0	54.0	0.1822	0.1600	0.2000
61	250	41	45.0	50.0	0.1640	0.1800	0.2000
62	246	51	62.0	49.0	0.2073	0.2500	0.2000
63	197	38	43.0	39.0	0.1929	0.2200	0.2000
64	161	33	37.0	32.0	0.2050	0.2300	0.2000
65	287	64	72.0	57.0	0.2230	0.2500	0.2000
66	212	48	53.0	42.0	0.2264	0.2500	0.2000
67	156	29	39.0	31.0	0.1859	0.2500	0.2000
68	123	31	31.0	25.0	0.2520	0.2500	0.2000
69	78	14	20.0	16.0	0.1795	0.2500	0.2000
70 & Up	243	47	61.0	49.0	0.1934	0.2500	0.2000
Total	2,809	571	603.0	568.0	0.2033	0.2147	0.2022

	<u>Actual</u>	Proposed
Current	0.2033	0.2022
Previous Investigation Results		
1997-1999	0.2229	0.2158
1994-1996	0.1643	0.1813

UNIVERSITY MALES EARLY RETIREMENT EXPERIENCE

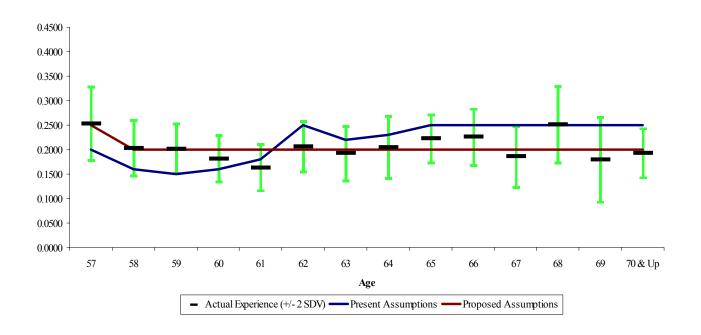
There were 261 age and service reduced retirements and 4,775 life years of exposure (exposure includes active members eligible for reduced retirement) in the male retirement investigation.

SUMMARY OF MALE AGE & SERVICE REDUCED RETIREMENT EXPERIENCE

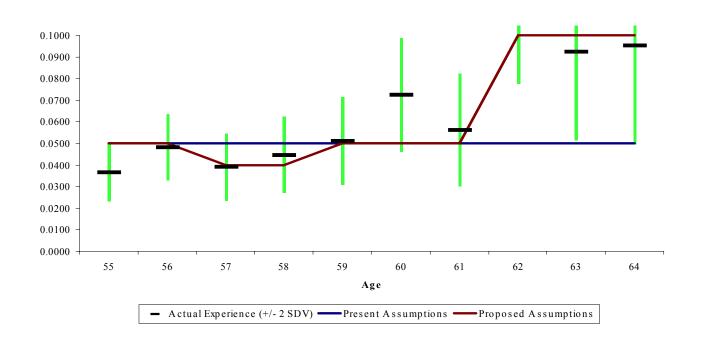
	Life	Number of Retirements			R	etirement R	ates
	Years	Actual	Expe	ected		Exp	ected
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
55	851	31	43.0	43.0	0.0364	0.0500	0.0500
56	828	40	41.0	41.0	0.0483	0.0500	0.0500
57	665	26	33.0	27.0	0.0391	0.0500	0.0400
58	582	26	29.0	23.0	0.0447	0.0500	0.0400
59	489	25	24.0	24.0	0.0511	0.0500	0.0500
60	401	29	20.0	20.0	0.0723	0.0500	0.0500
61	321	18	16.0	16.0	0.0561	0.0500	0.0500
62	264	31	13.0	26.0	0.1174	0.0500	0.1000
63	206	19	10.0	21.0	0.0922	0.0500	0.1000
64	168	16	8.0	17.0	0.0952	0.0500	0.1000
Total	4,775	261	237.0	258.0	0.0547	0.0497	0.0541

	<u>Actual</u>	Proposed
Current	0.0547	0.0541
Previous Investigation Results		
1997-1999	0.0408	0.0500
1994-1996	0.0534	0.0615

RATES OF NORMAL RETIREMENT UNIVERSITY MALES



RATES OF EARLY RETIREMENT UNIVERSITY MALES



UNIVERSITY FEMALES NORMAL RETIREMENT EXPERIENCE

There were 130 age and service unreduced retirements and 662 life years of exposure (exposure includes active members eligible for unreduced retirement) in the female retirement investigation.

SUMMARY OF FEMALE AGE & SERVICE UNREDUCED RETIREMENT EXPERIENCE

	Life	Numb	Number of Retirements			Retirement Rates		
	Years	Actual	Expo	ected		Expo	ected	
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed	
57	48	6	12.0	10.0	0.1250	0.2500	0.2000	
58	47	8	7.0	9.0	0.1702	0.1500	0.2000	
59	49	9	12.0	10.0	0.1837	0.2500	0.2000	
60	49	10	8.0	10.0	0.2041	0.1700	0.2000	
61	48	10	9.0	10.0	0.2083	0.1900	0.2000	
62	41	9	13.0	10.0	0.2195	0.3200	0.2500	
63	32	10	8.0	10.0	0.3125	0.2600	0.3000	
64	23	6	9.0	7.0	0.2609	0.3700	0.3000	
65	93	22	31.0	23.0	0.2366	0.3300	0.2500	
66	63	12	20.0	16.0	0.1905	0.3200	0.2500	
67	51	13	12.0	13.0	0.2549	0.2400	0.2500	
68	29	3	8.0	6.0	0.1034	0.2600	0.2000	
69	23	2	5.0	5.0	0.0870	0.2000	0.2000	
70 & Up	66	10	13.0	13.0	0.1515	0.2000	0.2000	
Total	662	130	167.0	152.0	0.1964	0.2523	0.2296	

	<u>Actual</u>	Proposed
Current	0.1964	0.2296
Previous Investigation Results		
1997-1999	0.2722	0.0257
1994-1996	0.3002	0.2744

UNIVERSITY FEMALES EARLY RETIREMENT EXPERIENCE

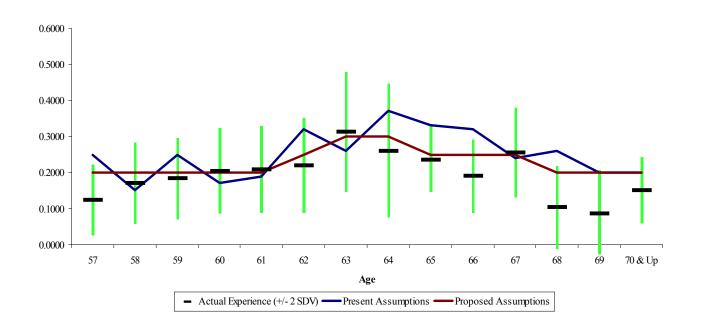
There were 215 age and service reduced retirements and 3,224 life years of exposure (exposure includes active members eligible for reduced retirement) in the female retirement investigation.

SUMMARY OF FEMALE AGE & SERVICE REDUCED RETIREMENT EXPERIENCE

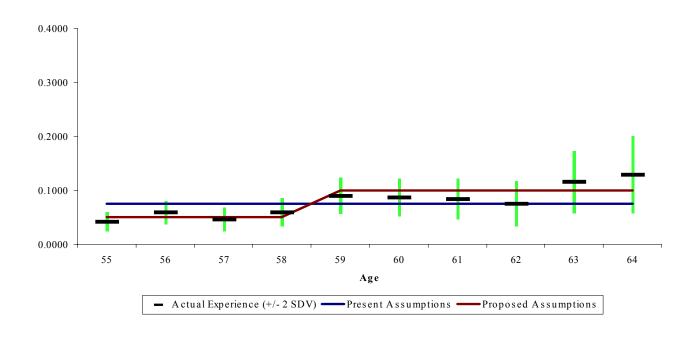
	Life	Number of Retirements			Retirement Rates		
	Years	Actual	Expe	ected		Exp	ected
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
55	626	26	47.0	31.0	0.0415	0.0750	0.0500
56	562	33	42.0	28.0	0.0587	0.0750	0.0500
57	427	20	32.0	21.0	0.0468	0.0750	0.0500
58	368	22	28.0	18.0	0.0598	0.0750	0.0500
59	323	29	24.0	32.0	0.0898	0.0750	0.1000
60	286	25	21.0	29.0	0.0874	0.0750	0.1000
61	236	20	18.0	24.0	0.0847	0.0750	0.1000
62	173	13	13.0	17.0	0.0751	0.0750	0.1000
63	130	15	10.0	13.0	0.1154	0.0750	0.1000
64	93	12	7.0	9.0	0.1290	0.0750	0.1000
Total	3,224	215	242.0	222.0	0.0667	0.0750	0.0689

	<u>Actual</u>	Proposed
Current	0.0667	0.0689
Previous Investigation Results		
1997-1999	0.0680	0.0750
1994-1996	0.0831	0.0851

RATES OF NORMAL RETIREMENT UNIVERSITY FEMALES



RATES OF EARLY RETIREMENT UNIVERSITY FEMALES



PROTECTIVE MEMBERS WITH SOCIAL SECURITY NORMAL RETIREMENT EXPERIENCE

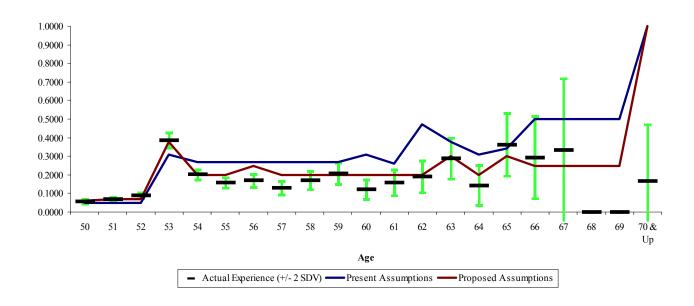
There were 1,086 age and service unreduced retirements and 7,574 life years of exposure (exposure includes active members eligible for unreduced retirement) in the retirement investigation.

SUMMARY OF PROTECTIVE MEMBERS WITH SOCIAL SECURITY AGE & SERVICE UNREDUCED RETIREMENT EXPERIENCE

	Life	Number of Retirements		Retirement Rates		tes	
	Years	Actual	Expe	ected		Expo	e cte d
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
50	1,292	73	65.0	78.0	0.0565	0.0500	0.0600
51	1,181	81	59.0	83.0	0.0686	0.0500	0.0700
52	1,093	97	55.0	77.0	0.0887	0.0500	0.0700
53	587	227	182.0	223.0	0.3867	0.3100	0.3800
54	950	192	257.0	190.0	0.2021	0.2700	0.2000
55	680	108	184.0	136.0	0.1588	0.2700	0.2000
56	486	82	131.0	122.0	0.1687	0.2700	0.2500
57	317	41	86.0	63.0	0.1293	0.2700	0.2000
58	252	43	68.0	50.0	0.1706	0.2700	0.2000
59	208	43	56.0	42.0	0.2067	0.2700	0.2000
60	155	19	48.0	31.0	0.1226	0.3100	0.2000
61	114	18	30.0	23.0	0.1579	0.2600	0.2000
62	84	16	39.0	17.0	0.1905	0.4700	0.2000
63	69	20	26.0	21.0	0.2899	0.3800	0.3000
64	42	6	13.0	8.0	0.1429	0.3100	0.2000
65	33	12	11.0	10.0	0.3636	0.3400	0.3000
66	17	5	9.0	4.0	0.2941	0.5000	0.2500
67	6	2	3.0	2.0	0.3333	0.5000	0.2500
68	1	0	1.0	0.0	0.0000	0.5000	0.2500
69	1	0	1.0	0.0	0.0000	0.5000	0.2500
70 & Up	6	1	6.0	6.0	0.1667	1.0000	1.0000
Total	7,574	1,086	1,330.0	1,186.0	0.1434	0.1756	0.1566

	<u>Actual</u>	Proposed
Current	0.1434	0.1566
Previous Investigation Results		
1997-1999	0.1715	0.1509
1994-1996	0.1206	0.1541

RATES OF NORMAL RETIREMENT PROTECTIVE MEMBERS WITH SOCIAL SECURITY



PROTECTIVE MEMBERS WITHOUT SOCIAL SECURITY NORMAL RETIREMENT EXPERIENCE

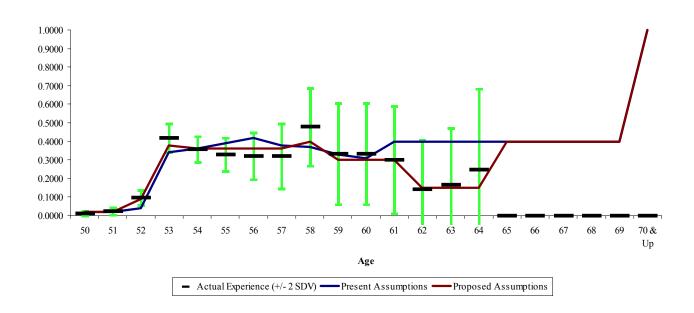
There were 253 age and service unreduced retirements and 1,353 life years of exposure (exposure includes active members eligible for unreduced retirement) in the retirement investigation.

SUMMARY OF PROTECTIVE MEMBERS WITHOUT SOCIAL SECURITY AGE & SERVICE UNREDUCED RETIREMENT EXPERIENCE

	Life	Number of Retirements		Retirement Rates		tes	
	Years	Actual	Expe	e cte d		Expected	
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
50	279	3	6.0	6.0	0.0108	0.0200	0.0200
51	240	6	5.0	5.0	0.0250	0.0200	0.0200
52	217	21	9.0	20.0	0.0968	0.0400	0.0900
53	160	67	54.0	61.0	0.4188	0.3400	0.3800
54	187	67	67.0	67.0	0.3583	0.3600	0.3600
55	112	37	44.0	40.0	0.3304	0.3900	0.3600
56	56	18	24.0	20.0	0.3214	0.4200	0.3600
57	28	9	11.0	10.0	0.3214	0.3800	0.3600
58	23	11	9.0	9.0	0.4783	0.3700	0.4000
59	12	4	4.0	4.0	0.3333	0.3300	0.3000
60	12	4	4.0	4.0	0.3333	0.3100	0.3000
61	10	3	4.0	3.0	0.3000	0.4000	0.3000
62	7	1	3.0	1.0	0.1429	0.4000	0.1500
63	6	1	2.0	1.0	0.1667	0.4000	0.1500
64	4	1	2.0	1.0	0.2500	0.4000	0.1500
65	0	0	0.0	0.0	0.0000	0.4000	0.4000
66	0	0	0.0	0.0	0.0000	0.4000	0.4000
67	0	0	0.0	0.0	0.0000	0.4000	0.4000
68	0	0	0.0	0.0	0.0000	0.4000	0.4000
69	0	0	0.0	0.0	0.0000	0.4000	0.4000
70 & Up	0	0	0.0	0.0	0.0000	1.0000	1.0000
Total	1,353	253	248.0	252.0	0.1870	0.1833	0.1863

	<u>Actual</u>	Proposed
Current	$\overline{0.1870}$	0.1863
Previous Investigation Results		
1997-1999	0.1989	0.1679
1994-1996	0.1504	0.1652

RATES OF NORMAL RETIREMENT PROTECTIVE MEMBERS WITHOUT SOCIAL SECURITY



EXECUTIVE AND ELECTED MEMBERS NORMAL RETIREMENT EXPERIENCE

There were 72 age and service unreduced retirements and 741 life years of exposure (exposure includes active members eligible for unreduced retirement) in the retirement investigation.

SUMMARY OF EXECUTIVE AND ELECTED MEMBERS AGE & SERVICE UNREDUCED RETIREMENT EXPERIENCE

	Life	Numb	Number of Retirements			Retirement Rates		
	Years	Actual	Expe	ected		Expo	ected	
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed	
57	18	0	1.0	1.0	0.0000	0.0800	0.0800	
58	18	0	1.0	1.0	0.0000	0.0800	0.0800	
59	20	0	2.0	2.0	0.0000	0.1200	0.1200	
60	20	0	3.0	3.0	0.0000	0.1400	0.1400	
61	17	6	3.0	6.0	0.3529	0.2000	0.3500	
62	123	2	18.0	12.0	0.0163	0.1500	0.1000	
63	112	4	17.0	11.0	0.0357	0.1500	0.1000	
64	82	5	12.0	8.0	0.0610	0.1500	0.1000	
65	61	1	12.0	6.0	0.0164	0.2000	0.1000	
66	52	15	10.0	10.0	0.2885	0.2000	0.2000	
67	30	10	6.0	6.0	0.3333	0.2000	0.2000	
68	25	9	5.0	5.0	0.3600	0.2000	0.2000	
69	29	9	6.0	6.0	0.3103	0.2000	0.2000	
70 & Up	134	11	27.0	13.0	0.0821	0.2000	0.1000	
Total	741	72	123.0	90.0	0.0972	0.1660	0.1215	

	<u>Actual</u>	Proposed
Current	0.0972	0.1215
Previous Investigation Results		
1997-1999	0.1221	0.1769
1994-1996	0.1408	0.1801

EXECUTIVE AND ELECTED MEMBERS EARLY RETIREMENT EXPERIENCE

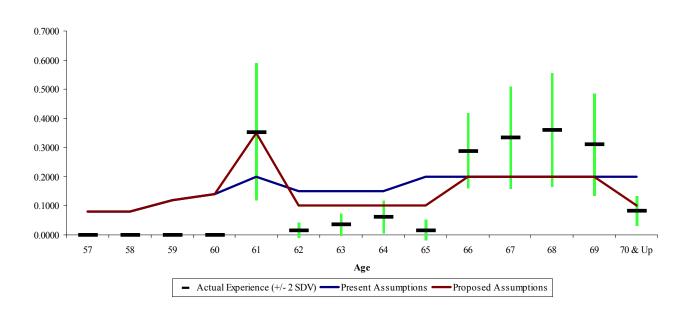
There were 32 age and service reduced retirements and 779 life years of exposure (exposure includes active members eligible for unreduced retirement) in the retirement investigation.

SUMMARY OF EXECUTIVE AND ELECTED MEMBERS AGE & SERVICE REDUCED RETIREMENT EXPERIENCE

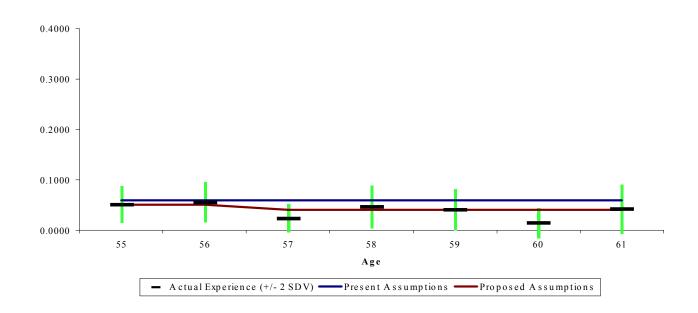
	Life	Number of Retirements			R	etirement R	ates
	Years	Actual	Expe	ected		Expected	
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
55	158	8	9.0	8.0	0.0506	0.0600	0.0500
56	144	8	9.0	7.0	0.0556	0.0600	0.0500
57	128	3	8.0	5.0	0.0234	0.0600	0.0400
58	108	5	6.0	4.0	0.0463	0.0600	0.0400
59	99	4	6.0	4.0	0.0404	0.0600	0.0400
60	70	1	4.0	3.0	0.0143	0.0600	0.0400
61	72	3	4.0	3.0	0.0417	0.0600	0.0400
Total	779	32	46.0	34.0	0.0411	0.0591	0.0437

	<u>Actual</u>	Proposed
Current	0.0411	0.0437
Previous Investigation Results		
1997-1999	0.0490	0.0600
1994-1996	0.5350	0.0600
1991-1993		
1988-1990		
1985-1987		

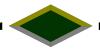
RATES OF NORMAL RETIREMENT EXECUTIVE AND ELECTED MEMBERS



RATES OF EARLY RETIREMENT EXECUTIVE AND ELECTED MEMBERS



MORTALITY EXPERIENCE



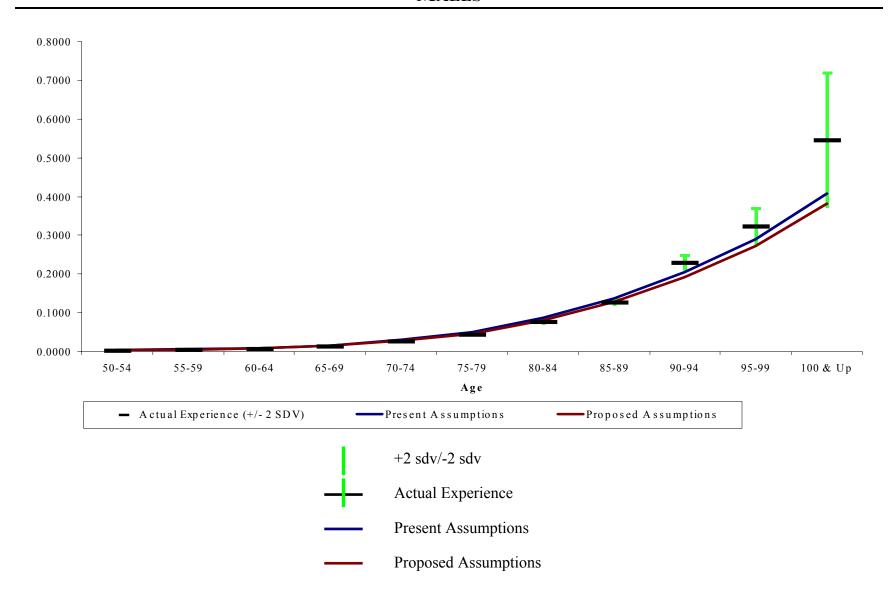
MALE RETIRED-LIFE MORTALITY EXPERIENCE (NORMAL RETIREMENT, ORIGINAL ANNUITANTS ONLY)

There were 4,649 retired member deaths reported for the 3-year period and 144,304 life years of exposure included in the male retired-life mortality investigation. There were fewer deaths than expected among retired males.

	Life	Post -	Retirement	Death	Post - Retirement Death Rates			
	Years	Actual	Expo	ected		Expo	ected	
Age	Exposure	Experience	Present Proposed		Actual	Present	Proposed	
50-54	2,464	6	9.0	8.0	0.0024	0.0037	0.0034	
55-59	18,648	78	106.0	99.0	0.0042	0.0057	0.0053	
60-64	26,331	193	236.0	222.0	0.0073	0.0090	0.0084	
65-69	28,913	400	467.0	438.0	0.0138	0.0161	0.0152	
70-74	26,162	664	779.0	732.0	0.0254	0.0298	0.0280	
75-79	20,294	906	1,009.0	947.0	0.0446	0.0497	0.0467	
80-84	12,738	984	1,103.0	1,035.0	0.0772	0.0866	0.0813	
85-89	6,256	797	858.0	805.0	0.1274	0.1371	0.1287	
90-94	2,066	474	423.0	397.0	0.2294	0.2047	0.1922	
95-99	399	129	116.0	109.0	0.3233	0.2908	0.2730	
100 & Up	33	18	13.0	13.0	0.5455	0.4066	0.3817	
Totals	144,304	4,649	5,119.0	4,805.0	0.0322	0.0355	0.0333	

	<u>Actual</u>	Proposed
Current	0.0322	0.0333
Previous Investigation Results		
1997-1999	0.0352	0.0356
1994-1996	0.0375	
1991-1993	0.0365	
1988-1990	0.0372	
1985-1987	0.0393	
1982-1984	0.0430	
1979-1981	0.0489	

RATES OF POST-RETIREMENT MORTALITY MALES



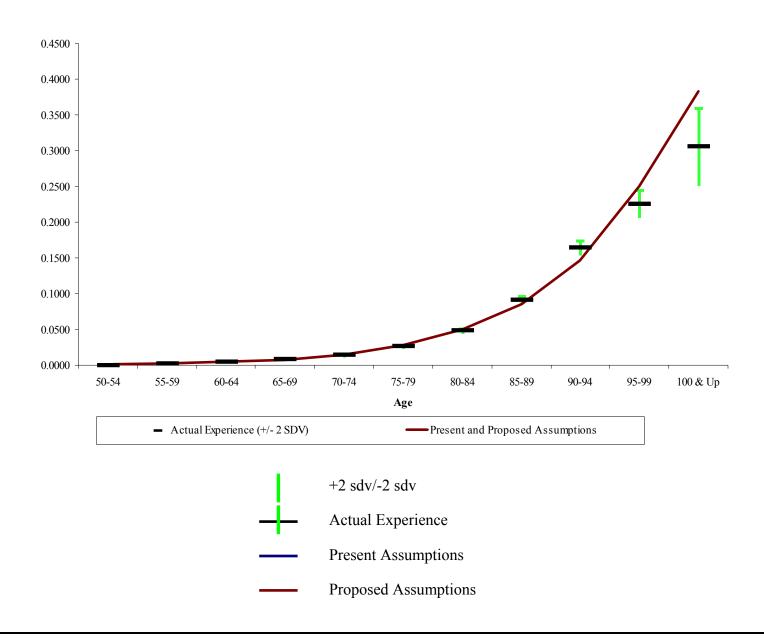
FEMALE RETIRED-LIFE MORTALITY EXPERIENCE (NORMAL RETIREMENT, ORIGINAL ANNUITANTS ONLY)

There were 5,271 retired member deaths reported for the 3-year period and 164,808 life years of exposure included in the female retired-life mortality investigation. There were slightly more deaths than expected among retired females. Proposed assumptions partially recognize the observed rates.

	Life	Post -	Retirement	Death	Post - Re	etirement De	ath Rates
	Years	Actual	Expected			Expe	ected
Age	Exposure	Experience	Present Proposed		Actual	Present	Proposed
50-54	857	0	1.0	1.0	0.0000	0.0016	0.0016
55-59	14,446	34	36.0	36.0	0.0024	0.0025	0.0025
60-64	24,573	132	107.0	107.0	0.0054	0.0043	0.0043
65-69	29,203	246	217.0	217.0	0.0084	0.0074	0.0074
70-74	28,482	402	411.0	411.0	0.0141	0.0144	0.0144
75-79	24,946	664	701.0	701.0	0.0266	0.0281	0.0281
80-84	20,332	982	1,014.0	1,014.0	0.0483	0.0499	0.0499
85-89	13,273	1,218	1,139.0	1,139.0	0.0918	0.0858	0.0858
90-94	6,462	1,064	950.0	950.0	0.1647	0.1469	0.1469
95-99	1,937	438	485.0	485.0	0.2261	0.2503	0.2503
100 & Up	297	91	114.0	114.0	0.3064	0.3823	0.3823
Totals	164,808	5,271	5,175.0	5,175.0	0.0320	0.0314	0.0314

	<u>Actual</u>	Proposed
Current	0.0320	0.0314
Previous Investigation Results		
1997-1999	0.0330	
1994-1996	0.0321	
1991-1993	0.0302	
1988-1990	0.0295	
1985-1987	0.0284	
1982-1984	0.0267	
1979-1981	0.0273	

RATES OF POST-RETIREMENT MORTALITY FEMALES

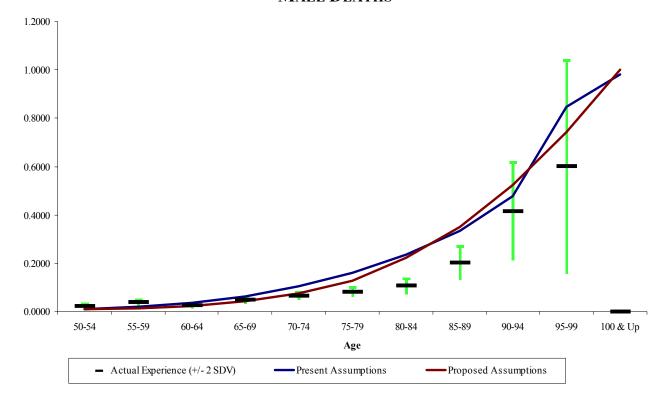


MALE RETIRED-LIFE MORTALITY EXPERIENCE (DISABLED RETIREMENT, ORIGINAL ANNUITANTS ONLY)

There were 401 retired member deaths reported for the 3-year period and 7,538 life years of exposure included in the male retired-life mortality investigation. There were fewer deaths than expected among disabled retired males.

	Life	Post -	Retirement	Death	Post - Retirement Death Rates				
	Years	Actual	Exp	ected		Exp	ected		
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed		
50-54	925	21	10.0	9.0	0.0227	0.0112	0.0094		
55-59	1,311	50	27.0	19.0	0.0381	0.0207	0.0145		
60-64	1,394	37	51.0	32.0	0.0265	0.0363	0.0229		
65-69	1,351	66	85.0	56.0	0.0489	0.0626	0.0412		
70-74	1,135	75	119.0	86.0	0.0661	0.1052	0.0760		
75-79	841	70	136.0	107.0	0.0832	0.1617	0.1269		
80-84	392	42	92.0	87.0	0.1071	0.2346	0.2208		
85-89	133	27	44.0	47.0	0.2030	0.3332	0.3497		
90-94	24	10	11.0	13.0	0.4167	0.4759	0.5223		
95-99	5	3	4.0	4.0	0.6000	0.8468	0.7419		
100 & Up	27	0	26.0	27.0	0.0000	0.9800	1.0000		
Totals	7,538	401	605.0	487.0	0.0532	0.0803	0.0646		

MALE DEATHS

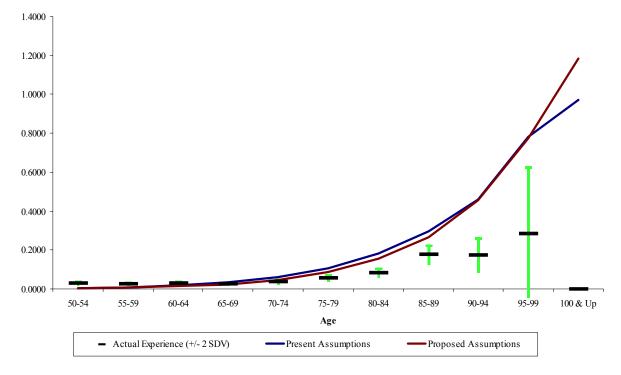


FEMALE RETIRED-LIFE MORTALITY EXPERIENCE (DISABLED RETIREMENT, ORIGINAL ANNUITANTS ONLY)

There were 375 retired member deaths reported for the 3-year period and 9,043 life years of exposure included in the female retired-life mortality investigation. There were slightly fewer deaths than expected among disabled retired females. Proposed assumptions partially recognize the observed rates.

	Life	Post -	Retirement	Death	Post - Ro	etire ment De	ath Rates
	Years	Actual	Expo	ected		Expe	ected
Age	Exposure	Experience	Present Proposed		Actual	Present	Proposed
50-54	1,282	37	7.0	6.0	0.0289	0.0054	0.0049
55-59	1,510	39	14.0	12.0	0.0258	0.0093	0.0077
60-64	1,647	51	32.0	22.0	0.0310	0.0192	0.0134
65-69	1,482	38	53.0	34.0	0.0256	0.0357	0.0229
70-74	1,301	50	80.0	58.0	0.0384	0.0619	0.0446
75-79	930	54	99.0	81.0	0.0581	0.1064	0.0869
80-84	515	43	94.0	79.0	0.0835	0.1828	0.1543
85-89	272	48	80.0	72.0	0.1765	0.2955	0.2653
90-94	75	13	34.0	34.0	0.1733	0.4574	0.4545
95-99	7	2	5.0	5.0	0.2857	0.7821	0.7742
100 & Up	22	0	21.0	26.0	0.0000	0.9700	1.1825
Totals	9,043	375	519.0	429.0	0.0415	0.0574	0.0474

FEMALE DEATHS

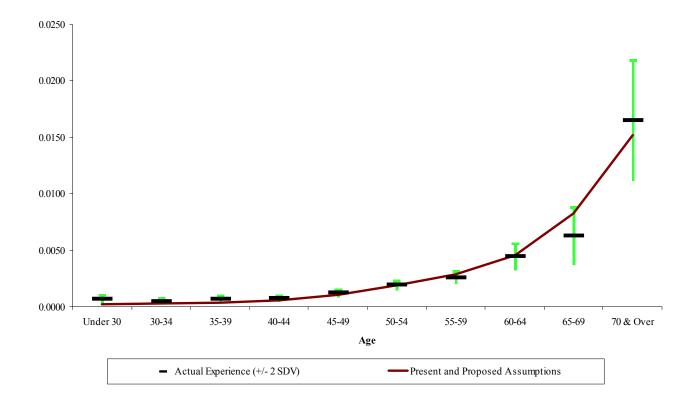


MALE DEATH-IN-SERVICE EXPERIENCE

There were 483 retired member deaths reported for the 3-year period and 302,902 life years of exposure included in the male active mortality investigation.

	Life	Post -	Retirement	Death	Post - Re	etirement De	ath Rates
	Years	Actual	Expected			Expe	ected
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
Under 30	27,077	19	5.0	5.0	0.0007	0.0002	0.0002
30-34	31,814	16	8.0	8.0	0.0005	0.0003	0.0003
35-39	36,807	25	14.0	14.0	0.0007	0.0004	0.0004
40-44	43,821	33	25.0	25.0	0.0008	0.0006	0.0006
45-49	50,962	63	55.0	55.0	0.0012	0.0011	0.0011
50-54	56,469	109	106.0	106.0	0.0019	0.0019	0.0019
55-59	36,283	95	105.0	105.0	0.0026	0.0029	0.0029
60-64	13,418	60	61.0	61.0	0.0045	0.0046	0.0046
65-69	3,953	25	33.0	33.0	0.0063	0.0082	0.0082
70 & Over	2,298	38	35.0	35.0	0.0165	0.0152	0.0152
Totals	302,902	483	447.0	447.0	0.0016	0.0015	0.0015

MALE DEATHS

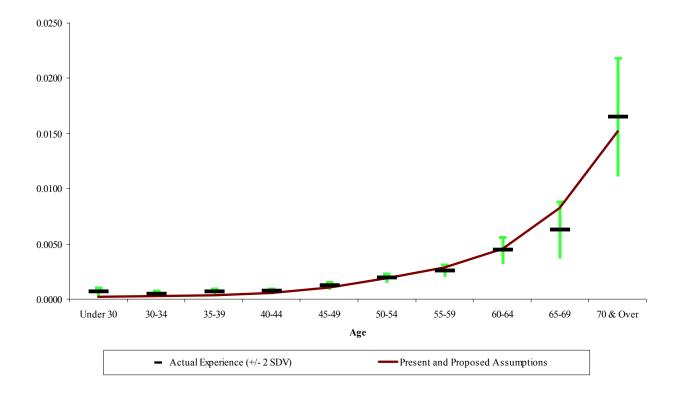


FEMALE DEATH-IN-SERVICE EXPERIENCE

There were 374 retired member deaths reported for the 3-year period and 470,992 life years of exposure included in the female active mortality investigation.

	Life	Post -	Retirement	Death	Post - Ro	etirement De	ath Rates
	Years	Actual	Expected			Exp	ected
Age	Exposure	Experience	Present	Proposed	Actual	Present	Proposed
Under 30	47,192	9	6.0	6.0	0.0002	0.0001	0.0001
30-34	47,069	6	8.0	8.0	0.0001	0.0002	0.0002
35-39	55,820	26	14.0	14.0	0.0005	0.0002	0.0002
40-44	71,951	26	26.0	26.0	0.0004	0.0004	0.0004
45-49	82,402	50	44.0	44.0	0.0006	0.0005	0.0005
50-54	85,083	95	70.0	70.0	0.0011	0.0008	0.0008
55-59	52,250	68	67.0	67.0	0.0013	0.0013	0.0013
60-64	21,140	51	47.0	47.0	0.0024	0.0022	0.0022
65-69	5,720	24	22.0	22.0	0.0042	0.0038	0.0038
70 & Over	2,365	19	18.0	18.0	0.0080	0.0074	0.0074
Totals	470,992	374	322.0	322.0	0.0008	0.0007	0.0007

FEMALE DEATHS



COMPLETE LISTS OF PROPOSED DECREMENT ASSUMPTIONS



SELECT AND ULTIMATE WITHDRAWAL

		-		9/6	of Active P	articipants	Withdrawin	g		<u> </u>
		Gei	neral	Public S	Schools	Univ	ersity	Prot	ective	Executive
								With	Without	&
Age	Service	Male	Female	Male	Female	Male	Female	SS	SS	Elected
_	0-1	18.0%	18.0%	11.0%	10.0%	18.0%	18.0%	11.0%	5.0%	9.0%
	1-2	10.0%	11.0%	7.0%	8.0%	13.0%	15.0%	6.0%	2.5%	8.5%
	2-3	8.0%	9.0%	5.0%	6.0%	10.0%	13.0%	3.5%	2.2%	8.0%
	3-4	6.0%	7.0%	4.5%	5.4%	9.0%	10.0%	3.2%	2.0%	7.0%
	4-5	5.0%	6.0%	3.5%	4.4%	7.0%	9.0%	3.2%	1.7%	5.0%
Under 30	5 & Up	4.1%	4.9%	2.7%	3.5%	6.7%	7.8%	14.8%	0.9%	4.7%
31		3.8%	4.7%	2.2%	3.3%	6.6%	7.4%	14.4%	0.8%	4.6%
32		3.5%	4.5%	1.7%	3.1%	6.5%	7.0%	1.4%	0.8%	4.5%
33		3.3%	4.2%	1.7%	2.8%	6.4%	6.7%	1.4%	0.8%	4.4%
34		3.0%	3.9%	1.6%	2.5%	6.3%	6.4%	1.4%	0.8%	4.3%
35		2.8%	3.6%	1.5%	2.3%	6.2%	6.1%	1.3%	0.8%	4.2%
36		2.5%	3.3%	1.4%	2.1%	6.1%	5.8%	1.3%	0.8%	4.1%
37		2.3%	3.0%	1.3%	1.8%	6.0%	5.5%	1.3%	0.8%	4.0%
38		2.2%	2.9%	1.3%	1.7%	5.6%	5.2%	1.3%	0.8%	3.8%
39		2.1%	2.8%	1.2%	1.6%	5.2%	5.0%	1.3%	0.8%	3.6%
40		2.0%	2.7%	1.2%	1.5%	4.8%	4.7%	1.2%	0.8%	3.4%
41		1.9%	2.6%	1.2%	1.4%	4.4%	4.5%	1.2%	0.8%	3.2%
42		1.8%	2.5%	1.2%	1.3%	4.0%	4.2%	1.2%	0.8%	3.0%
43		1.7%	2.4%	1.1%	1.2%	3.7%	3.9%	1.2%	0.8%	2.8%
44		1.6%	2.3%	1.1%	1.2%	3.4%	3.6%	1.2%	0.8%	2.6%
45		1.6%	2.2%	1.0%	1.2%	3.1%	3.4%	1.1%	0.7%	2.4%
46		1.5%	2.1%	1.0%	1.2%	2.8%	3.1%	1.1%	0.7%	2.2%
47		1.4%	2.0%	0.9%	1.2%	2.5%	2.8%	1.1%	0.7%	2.0%
48		1.4%	2.0%	0.9%	1.2%	2.3%	2.7%	1.0%	0.7%	2.0%
49		1.4%	2.0%	0.9%	1.2%	2.1%	2.6%	0.9%	0.7%	2.0%
50		1.3%	2.0%	0.9%	1.2%	1.9%	2.6%	0.8%	0.7%	2.0%
51		1.3%	2.0%	0.9%	1.2%	1.7%	2.5%	0.7%	0.7%	2.0%
52		1.3%	2.0%	0.9%	1.2%	1.5%	2.4%	0.6%	0.7%	2.0%
53		1.3%	2.0%	0.9%	1.2%	1.5%	2.4%	0.6%	0.7%	2.0%
54		1.3%	2.0%	0.9%	1.2%	1.5%	2.4%	0.6%	0.7%	2.0%
		311	312	313	319	314	315	316	317	318
		709	710	696	697	711	712	713	714	715

DISABILITY RATES

	% of Active Participants Withdrawing									
	Gen	eral	Public	Schools	Univ	ersity	Prot	ective	Executive	
							With	Without	&	
Age	Male	Female	Male	Female	Male	Female	SS	SS	Elected	
20	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.04%	0.01%	
21	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.04%	0.01%	
22	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.04%	0.01%	
23	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.04%	0.01%	
24	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.04%	0.01%	
25	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.04%	0.01%	
26	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.04%	0.01%	
27	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.04%	0.01%	
28	0.01%	0.03%	0.01%	0.01%	0.01%	0.01%	0.01%	0.04%	0.01%	
29	0.01%	0.03%	0.01%	0.01%	0.01%	0.01%	0.01%	0.05%	0.01%	
30	0.01%	0.04%	0.01%	0.01%	0.01%	0.01%	0.01%	0.05%	0.01%	
31	0.01%	0.04%	0.01%	0.01%	0.01%	0.01%	0.02%	0.05%	0.01%	
32	0.01%	0.04%	0.01%	0.01%	0.01%	0.01%	0.02%	0.05%	0.01%	
33	0.01%	0.04%	0.01%	0.01%	0.01%	0.02%	0.02%	0.05%	0.01%	
34	0.01%	0.05%	0.01%	0.01%	0.01%	0.03%	0.03%	0.05%	0.01%	
35	0.02%	0.05%	0.01%	0.01%	0.01%	0.04%	0.03%	0.06%	0.01%	
36	0.02%	0.05%	0.01%	0.01%	0.01%	0.05%	0.04%	0.06%	0.01%	
37	0.03%	0.05%	0.01%	0.01%	0.01%	0.05%	0.04%	0.06%	0.01%	
38	0.04%	0.06%	0.01%	0.01%	0.01%	0.05%	0.04%	0.08%	0.01%	
39	0.05%	0.07%	0.02%	0.02%	0.01%	0.05%	0.04%	0.09%	0.01%	
40	0.06%	0.07%	0.02%	0.02%	0.01%	0.06%	0.05%	0.11%	0.01%	
41	0.08%	0.08%	0.03%	0.04%	0.01%	0.06%	0.05%	0.13%	0.02%	
42	0.09%	0.08%	0.03%	0.04%	0.01%	0.07%	0.05%	0.15%	0.02%	
43	0.10%	0.09%	0.04%	0.06%	0.02%	0.06%	0.06%	0.16%	0.02%	
44	0.11%	0.10%	0.05%	0.07%	0.02%	0.05%	0.07%	0.18%	0.02%	
45	0.11%	0.10%	0.05%	0.08%	0.03%	0.05%	0.09%	0.19%	0.02%	
46	0.12%	0.11%	0.06%	0.11%	0.04%	0.05%	0.10%	0.20%	0.03%	
47	0.12%	0.11%	0.06%	0.13%	0.04%	0.05%	0.12%	0.21%	0.03%	
48	0.17%	0.13%	0.08%	0.13%	0.04%	0.07%	0.18%	0.35%	0.04%	
49	0.21%	0.14%	0.11%	0.14%	0.04%	0.08%	0.24%	0.49%	0.04%	
50	0.25%	0.16%	0.15%	0.16%	0.05%	0.10%	0.30%	0.59%	0.05%	
51 52	0.29%	0.17%	0.19%	0.17%	0.06%	0.11%	0.37%	0.69%	0.05%	
52 52	0.33%	0.19%	0.23%	0.18%	0.06%	0.13%	0.43%	0.79%	0.06%	
53 54	0.38%	0.22%	0.24%	0.19%	0.09%	0.13%	0.60%	0.75%	0.11%	
54 55	0.42% 0.48%	0.26% 0.29%	0.25% 0.27%	0.22% 0.23%	0.12% 0.15%	0.14% 0.15%	0.80% 1.00%	0.70% 0.65%	0.15% 0.18%	
55 56	0.48%	0.29%	0.27%	0.25%	0.13%	0.15%	1.00%	0.63%	0.18%	
57	0.54%	0.32%	0.29%	0.23%	0.17%	0.10%	1.21%	0.55%	0.21%	
58	0.59%	0.38%	0.36%	0.28%	0.20%	0.17%	1.16%	0.50%	0.24%	
59	0.03%	0.38%	0.36%	0.30%	0.20%	0.19%	0.92%	0.50%	0.23%	
60	0.72%	0.39%	0.41%	0.32%	0.20%	0.20%	0.92%	0.50%	0.23%	
Ref	283	284	281	282	279	280	277	278	275	
Multplier	100%	100%	105%	120%	70%	75%	80%	100%	60%	

SALARY SCALE – SERVICE BASED RATES

		%	Merit Increases in	Salaries Next Yea	r	
	General			Protective	Protective	Executive
	(Not Including	University	Public School	With	Without	&
Service	Schools)	Teachers	Teachers	SS	SS	Elected
1	3.5%	4.4%	5.8%	4.0%	4.5%	1.2%
2	3.5%	4.4%	5.8%	4.0%	4.5%	1.2%
3	3.2%	4.3%	5.3%	3.6%	4.0%	1.2%
4	2.9%	4.3%	4.9%	3.2%	3.5%	1.2%
5	2.6%	4.2%	4.4%	2.8%	3.0%	1.1%
6	2.3%	4.2%	4.0%	2.4%	2.5%	1.1%
7	2.0%	4.1%	3.5%	2.0%	2.0%	1.1%
8	1.9%	3.9%	3.2%	1.9%	1.7%	1.1%
9	1.8%	3.6%	2.9%	1.8%	1.4%	1.1%
10	1.6%	3.4%	2.6%	1.7%	1.1%	1.0%
11	1.5%	3.1%	2.3%	1.6%	0.8%	1.0%
12	1.4%	2.9%	2.0%	1.5%	0.5%	1.0%
13	1.4%	2.8%	1.8%	1.4%	0.5%	1.0%
14	1.3%	2.7%	1.7%	1.3%	0.5%	1.0%
15	1.3%	2.5%	1.5%	1.2%	0.5%	0.9%
16	1.2%	2.4%	1.4%	1.1%	0.5%	0.9%
17	1.2%	2.3%	1.2%	1.0%	0.5%	0.9%
18	1.2%	2.3%	1.1%	1.0%	0.5%	0.9%
19	1.1%	2.2%	1.0%	1.0%	0.5%	0.8%
20	1.1%	2.2%	1.0%	1.0%	0.5%	0.8%
21	1.0%	2.1%	0.9%	1.0%	0.5%	0.7%
22	1.0%	2.1%	0.8%	1.0%	0.5%	0.7%
23	1.0%	2.1%	0.7%	1.0%	0.5%	0.7%
24	0.9%	2.1%	0.6%	1.0%	0.5%	0.6%
25	0.9%	2.0%	0.6%	1.0%	0.5%	0.6%
26	0.9%	2.0%	0.5%	1.0%	0.5%	0.5%
27	0.8%	2.0%	0.4%	1.0%	0.5%	0.5%
28	0.8%	1.9%	0.3%	1.0%	0.5%	0.5%
29	0.7%	1.8%	0.3%	1.0%	0.5%	0.5%
30	0.7%	1.8%	0.2%	1.0%	0.5%	0.4%
31	0.6%	1.7%	0.2%	1.0%	0.5%	0.4%
32	0.6%	1.6%	0.1%	0.5%	0.5%	0.4%
33	0.6%	1.4%	0.1%	0.5%	0.5%	0.3%
34	0.5%	1.2%	0.1%	0.5%	0.5%	0.2%
35	0.5%	1.1%	0.1%	0.5%	0.5%	0.2%
36	0.4%	0.9%	0.1%	0.5%	0.5%	0.1%
37	0.4%	0.7%	0.1%	0.5%	0.5%	0.1%
38	0.4%	0.7%	0.1%	0.5%	0.5%	0.0%
39	0.4%	0.7%	0.1%	0.5%	0.5%	0.0%
40	0.4%	0.6%	0.1%	0.5%	0.5%	0.0%
Ref	111	110	109	107	108	106

NORMAL RETIREMENT PATTERN

				% of Active	Participan	ts Retiring			
	Ger	eral	Public	Schools	Unive	ersity	Prot	ective	Executive
							With	Without	&
Age	Male	Female	Male	Female	Male	Female	SS *	SS *	Elected
50	%	%	%	%	%	%	6%	2%	%
51							7%	2%	
52							7%	9%	
53							38%	38%	
54							20%	36%	
55							20%	36%	
56							25%	36%	
57	28%	27%	25%	30%	25%	20%	20%	36%	8%
58	28%	27%	25%	30%	20%	20%	20%	40%	8%
59	28%	25%	25%	30%	20%	20%	20%	30%	12%
60	28%	25%	30%	30%	20%	20%	20%	30%	14%
61	30%	25%	35%	35%	20%	20%	20%	30%	35%
62	40%	30%	60%	40%	20%	25%	20%	15%	10%
63	40%	35%	50%	35%	20%	30%	30%	15%	10%
64	35%	35%	50%	25%	20%	30%	20%	15%	10%
65	35%	30%	70%	30%	20%	25%	30%	40%	10%
66	35%	30%	70%	25%	20%	25%	25%	40%	20%
67	15%	20%	50%	25%	20%	25%	25%	40%	20%
68	15%	15%	50%	20%	20%	20%	25%	40%	20%
69	15%	15%	50%	20%	20%	20%	25%	40%	20%
70	15%	15%	50%	20%	20%	20%	100%	100%	10%
71	15%	15%	50%	20%	20%	20%	100%	100%	10%
72	15%	15%	50%	20%	20%	20%	100%	100%	10%
73	15%	15%	50%	20%	20%	20%	100%	100%	10%
74	15%	15%	50%	20%	20%	20%	100%	100%	10%
75	100%	100%	100%	100%	100%	100%	100%	100%	100%
Ref	871	873	875	877	879	881	883	884	885

^{*} Includes Early Retirement.

EARLY RETIREMENT PATTERN

			% of Ac	tive Participants	Retiring						
	General		Public Schools		University		Executive				
							&				
Age	Male	Female	Male	Female	Male	Female	Elected				
55	8%	6%	15%	11%	5%	5%	5%				
56	8%	6%	15%	11%	5%	5%	5%				
57	4%	5%	15%	11%	4%	5%	4%				
58	6%	5%	15%	12%	4%	5%	4%				
59	6%	5%	10%	12%	5%	10%	4%				
60	8%	8%	15%	15%	5%	10%	4%				
61	8%	8%	15%	15%	5%	10%	4%				
62	20%	18%	25%	25%	10%	10%	4%				
63	20%	18%	25%	20%	10%	10%	4%				
64	15%	14%	15%	15%	10%	10%	4%				
							•				
Ref	872	874	876	878	880	882	887				

RETIRED LIVES MORTALITY RATES

	% Dying			% Dying	Next Year	
Age	Male	Female	A	lge	Male	Female
20	0.0267%	0.0164%		60	0.6969%	0.3457%
21	0.0278%	0.0174%	(61	0.7671%	0.3877%
22	0.0289%	0.0184%		62	0.8426%	0.4345%
23	0.0301%	0.0195%		63	0.9366%	0.4858%
24	0.0315%	0.0206%		64	1.0499%	0.5440%
25	0.0329%	0.0218%		65	1.1836%	0.6063%
26	0.0345%	0.0232%		66	1.3388%	0.6721%
27	0.0363%	0.0245%		67	1.5155%	0.7418%
28	0.0384%	0.0261%		68	1.7093%	0.8247%
29	0.0406%	0.0277%		69	1.9409%	0.9324%
30	0.0430%	0.0296%	1	70	2.2075%	1.0695%
31	0.0457%	0.0314%	1	71	2.4989%	1.2415%
32	0.0487%	0.0336%		72	2.7962%	1.4413%
33	0.0520%	0.0358%		73	3.0944%	1.6630%
34	0.0556%	0.0383%		74	3.4083%	1.9152%
35	0.0596%	0.0410%		75	3.7568%	2.1879%
36	0.0639%	0.0439%	1	76	4.1668%	2.4846%
37	0.0688%	0.0472%	1	77	4.6683%	2.8101%
38	0.0742%	0.0508%	,	78	5.2473%	3.1658%
39	0.0801%	0.0547%		79	5.8790%	3.5712%
40	0.0868%	0.0591%		80	6.5821%	4.0101%
41	0.0950%	0.0638%		81	7.3319%	4.4818%
42	0.1063%	0.0689%		82	8.1270%	4.9886%
43	0.1201%	0.0747%		83	8.9796%	5.5328%
44	0.1364%	0.0810%		84	9.8788%	6.1870%
45	0.1552%	0.0880%		85	10.8238%	6.9063%
46	0.1763%	0.0956%		86	11.8206%	7.7002%
47	0.1994%	0.1042%		87	12.8678%	8.5791%
48	0.2247%	0.1135%		88	13.9834%	9.5552%
49	0.2518%	0.1239%		89	15.1771%	10.6417%
50	0.2808%	0.1355%	'	90	16.4584%	11.8550%
51	0.3117%	0.1464%	!	91	17.8099%	13.1936%
52	0.3443%	0.1587%		92	19.2208%	14.6942%
53	0.3786%	0.1725%	!	93	20.5024%	16.3802%
54	0.4146%	0.1878%	!	94	22.0261%	18.2780%
55	0.4525%	0.2051%		95	23.6842%	20.4181%
56	0.4920%	0.2251%		96	25.4144%	22.8349%
57	0.5333%	0.2487%		97	27.3006%	25.0317%
58	0.5784%	0.2764%		98	29.3645%	27.1830%
59	0.6334%	0.3087%		99	31.2835%	29.5539%

	% Dying Next Year				
Age	Male	Female			
100	33.3783%	32.1681%			
101	35.6685%	35.0520%			
102	38.1747%	38.2342%			
103	41.1080%	41.7455%			
104	44.6795%	45.7376%			
105	49.1004%	50.3620%			
106	54.5815%	55.7701%			
107	61.3342%	62.1135%			
108	69.5693%	69.5436%			
109	79.4982%	78.2120%			
110	92.0000%	96.9999%			
111	92.0000%	97.0000%			
112	92.0000%	97.0000%			
113	92.0000%	97.0000%			
114	92.0000%	97.0000%			
115	92.0000%	97.0000%			
116	92.0000%	97.0000%			
117	92.0000%	97.0000%			
118	92.0000%	97.0000%			
119	92.0000%	97.0000%			
120	100.0000%	100.0000%			

Ref 300 x 92% 144 x 97%

DISABLED RETIRED LIVES MORTALITY RATES

	% Dying Next Year			% Dyin	g Next Year
Age	Male	Female	Age	e Male	Female
20	0.0725%	0.0507%	60	1.8938%	1.0692%
21	0.0755%	0.0537%	61	2.0845%	1.1991%
22	0.0785%	0.0570%	62	2.2897%	1.3437%
23	0.0817%	0.0603%	63	2.5450%	1.5024%
24	0.0855%	0.0636%	64	2.8530%	1.6824%
25	0.0895%	0.0675%	65	3.2163%	1.8753%
26	0.0938%	0.0717%	66	3.6380%	2.0787%
27	0.0988%	0.0759%	67	4.1183%	2.2941%
28	0.1043%	0.0807%	68	4.6448%	2.5506%
29	0.1103%	0.0858%	69	5.2743%	2.8836%
30	0.1168%	0.0915%	70	5.9988%	3.3078%
31	0.1243%	0.0972%	71	6.7905%	3.8397%
32	0.1323%	0.1038%	72	7.5983%	4.4577%
33	0.1412%	0.1107%	73	8.4088%	5.1432%
34	0.1510%	0.1185%	74	9.2617%	5.9232%
35	0.1620%	0.1269%	75	10.2088%	6.7668%
36	0.1737%	0.1359%	76	11.3227%	7.6842%
37	0.1870%	0.1461%	77	12.6855%	8.6910%
38	0.2015%	0.1572%	78	14.2590%	9.7911%
39	0.2177%	0.1692%	79	15.9755%	11.0448%
40	0.2358%	0.1827%	80	17.8862%	12.4023%
41	0.2582%	0.1974%	81	19.9238%	13.8612%
42	0.2887%	0.2130%	82	22.0842%	15.4287%
43	0.3263%	0.2310%	83	24.4010%	17.1117%
44	0.3708%	0.2505%	84	26.8445%	19.1352%
45	0.4218%	0.2721%	85	29.4125%	21.3597%
46	0.4790%	0.2958%	86	32.1212%	23.8149%
47	0.5417%	0.3222%	87	34.9667%	26.5332%
48	0.6105%	0.3510%	88	37.9983%	29.5521%
49	0.6842%	0.3831%	89	41.2420%	32.9124%
50	0.7630%	0.4191%	90	44.7240%	36.6648%
51	0.8470%	0.4527%	91	48.3965%	40.8051%
52	0.9355%	0.4908%	92	52.2305%	45.4461%
53	1.0287%	0.5334%	93	55.7130%	50.6604%
54	1.1268%	0.5808%	94	59.8535%	56.5299%
55	1.2297%	0.6342%	95	64.3592%	63.1488%
56	1.3370%	0.6963%	96	69.0608%	70.6233%
57	1.4493%	0.7692%	97	74.1865%	77.4177%
58	1.5718%	0.8547%	98	79.7947%	84.0711%
59	1.7213%	0.9546%	99	85.0095%	91.4037%

	% Dying Next Year					
Age	Male	Female				
100	90.7020%	99.4890%				
101	96.9253%	108.4083%				
102	103.7355%	118.2501%				
103	111.7065%	129.1098%				
104	121.4117%	141.4566%				
105	133.4250%	155.7588%				
106	148.3192%	172.4850%				
107	166.6690%	192.1035%				
108	189.0470%	215.0832%				
109	100.0000%	100.0000%				
110	100.0000%	100.0000%				
111	100.0000%	100.0000%				
112	100.0000%	100.0000%				
113	100.0000%	100.0000%				
114	100.0000%	100.0000%				
115	100.0000%	100.0000%				
116	100.0000%	100.0000%				
117	100.0000%	100.0000%				
118	100.0000%	100.0000%				
119	100.0000%	100.0000%				
120	100.0000%	100.0000%				

Ref 300 x 250% 144 x 300%

DEATH-IN-SERVICE RATES

	% Dying	Next Year		% Dying	Next Year		
Age	Male	Female	Age	Male	Female	Age	
20	0.0145%	0.0085%	60	0.3788%	0.1782%	100	
21	0.0151%	0.0089%	61	0.4169%	0.1998%	101	
22	0.0157%	0.0095%	62	0.4579%	0.2239%	102	
23	0.0163%	0.0101%	63	0.5090%	0.2504%	103	
24	0.0171%	0.0106%	64	0.5706%	0.2804%	104	
25	0.0179%	0.0112%	65	0.6433%	0.3125%	105	
26	0.0188%	0.0120%	66	0.7276%	0.3464%	106	
27	0.0198%	0.0127%	67	0.8237%	0.3823%	107	
28	0.0209%	0.0135%	68	0.9290%	0.4251%	108	
29	0.0221%	0.0143%	69	1.0549%	0.4806%	109	.
30	0.0234%	0.0152%	70	1.1998%	0.5513%	110	
31	0.0249%	0.0162%	71	1.3581%	0.6400%	111	
32	0.0265%	0.0173%	72	1.5197%	0.7430%	112	
33	0.0282%	0.0184%	73	1.6818%	0.8572%	113	
34	0.0302%	0.0198%	74	1.8523%	0.9872%	114	
35	0.0324%	0.0211%	75	2.0418%	1.1278%	115	1
36	0.0347%	0.0226%	76	2.2645%	1.2807%	116	
37	0.0374%	0.0244%	77	2.5371%	1.4485%	117	
38	0.0403%	0.0262%	78	2.8518%	1.6319%	118	
39	0.0435%	0.0282%	79	3.1951%	1.8408%	119	
40	0.0472%	0.0304%	80	3.5772%	2.0670%	120	1
41	0.0516%	0.0329%	81	3.9848%	2.3102%	'	
42	0.0577%	0.0355%	82	4.4168%	2.5714%		
43	0.0653%	0.0385%	83	4.8802%	2.8520%		
44	0.0742%	0.0418%	84	5.3689%	3.1892%		
45	0.0844%	0.0453%	85	5.8825%	3.5599%		
46	0.0958%	0.0493%	86	6.4242%	3.9692%		
47	0.1083%	0.0537%	87	6.9933%	4.4222%		
48	0.1221%	0.0585%	88	7.5997%	4.9254%		
49	0.1368%	0.0638%	89	8.2484%	5.4854%		
50	0.1526%	0.0699%	90	8.9448%	6.1108%		
51	0.1694%	0.0754%	91	9.6793%	6.8008%		
52	0.1871%	0.0818%	92	10.4461%	7.5743%		
53	0.2057%	0.0889%	93	11.1426%	8.4434%		
54	0.2254%	0.0968%	94	11.9707%	9.4217%		
55	0.2459%	0.1057%	95	12.8718%	10.5248%		
56	0.2674%	0.1160%	96	13.8122%	11.7706%		
			1	1	10.00000		

97

98

99

14.8373%

15.9589%

17.0019%

12.9029%

14.0118%

15.2340%

	% Dying Next Year					
Age	Male	Female				
100	18.1404%	16.5815%				
101	19.3851%	18.0680%				
102	20.7471%	19.7084%				
103	22.3413%	21.5183%				
104	24.2823%	23.5761%				
105	26.6850%	25.9598%				
106	29.6638%	28.7475%				
107	33.3338%	32.0172%				
108	37.8094%	35.8472%				
109	43.2056%	40.3154%				
110	50.0000%	49.9999%				
111	50.0000%	50.0000%				
112	50.0000%	50.0000%				
113	50.0000%	50.0000%				
114	50.0000%	50.0000%				
115	50.0000%	50.0000%				
116	50.0000%	50.0000%				
117	50.0000%	50.0000%				
118	50.0000%	50.0000%				
119	50.0000%	50.0000%				
120	100.0000%	100.0000%				

Ref 300 x 50% 144 x 50%

0.2899%

0.3144%

0.3443%

57

58

59

0.1282%

0.1425%

0.1591%

APPENDIX A



APPENDIX A – DISABLED ANNUITIES BEING PAID AS OF DECEMBER 31, 2002

Year	Fixed Annuities			Variable Annuities				Avg. Total	
Ret'd	No.	Initial	Increases	Total	No.	Initial	Increases	Total	Annuity
2002	182	\$3,713	\$ 0	\$3,713	33	\$ 55	\$ 0	\$ 55	\$20,701
2001	326	5,907	180	6,087	56	369	(52)	317	19,645
2000	310	5,153	431	5,584	32	421	(99)	322	19,053
1999	313	5,127	1,283	6,410	28	398	(29)	369	21,657
1998	318	4,963	1,666	6,629	37	410	14	424	22,178
1997	330	4,889	2,092	6,981	36	342	77	419	22,426
1996	356	4,744	2,504	7,248	45	318	124	442	21,601
1995	365	4,819	2,977	7,796	44	265	175	440	22,565
1994	339	4,614	3,113	7,727	42	276	164	440	24,102
1993	351	3,881	2,971	6,852	61	293	226	519	20,997
1992	320	3,681	3,067	6,748	43	202	174	376	22,264
1991	312	3,187	3,046	6,233	40	129	154	283	20,885
1990	293	3,031	3,171	6,202	48	230	203	433	22,644
1989	330	3,536	4,180	7,716	61	219	261	480	24,835
1988	326	3,014	3,920	6,934	57	156	233	389	22,464
1987	271	2,541	3,893	6,434	63	183	246	429	25,324
1986	271	2,347	3,965	6,312	47	114	174	288	24,352
1985	248	2,357	4,291	6,648	54	118	257	375	28,322
1984	199	1,752	3,411	5,163	40	75	164	239	27,149
1983	133	893	2,054	2,947	29	47	129	176	23,485
1982	149	859	2,085	2,944	36	45	146	191	21,042
1981	141	592	1,653	2,245	37	37	125	162	17,078
1980	103	399	1,161	1,560	24	21	90	111	16,221
1979	66	275	855	1,130	15	14	67	81	18,348
1978	56	235	757	992	17	10	55	65	18,882
1977	70	279	912	1,191	14	12	57	69	18,002
1976	86	320	1,069	1,389	25	8	52	60	16,860
1975	57 52	216	690	906	13	6	39	45	16,683
1974	53	157	534	691	13	4	19	23	13,485
1973	23	61	216	277	6	3	17	20	12,906
1972	23	50	175	225	6	3	16	19	10,630
1971	16	42	145	187	2	1	5	6	12,049
1970	16	38	131	169	1	0	1	1	10,637
1969	9	21 22	71 76	92 98	0	0	0 3	0	10,148 10,049
1968	10	20	76 71	98 91	2	1		4	-
1967	8		71		-	0	0	0	11,314
1966 1965	5 3	7 5	26 17	33	1	0	1	1	6,834 7,213
1963 1964	3 4	8	29	22 37	0	0	0	0	10,399
1964 1963			39		1	1	4	5	10,399
1903	5	11	39	50	0	0	0	0	10,054
Prior	26	36	119	155	0	0	0	0	5,959
Total	6,822	\$77,802	\$63,046	\$140,848	1,109	\$4,786	\$3,292	\$8,078	\$21,830

November 26, 2003

Ms. Julie Reneau
Wisconsin Department of Employee
Trust Funds
801 West Badger Road
Madison, Wisconsin 53707

Re: 2000 – 2002 WRS Experience Study

Dear Julie:

Enclosed are 75 spiral bound copies of the report and 50 2-sided stapled pink copies.

Sincerely,

Brian B. Murphy

NLJ/lr

Enclosures