August 31, 2009

Experience Study 2004 - 2008

State Employees Retirement Fund

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August 31, 2009

Mr. Dave Bergstrom
Executive Director
Minnesota State Retirement System
60 Empire Drive, Suite 300
St. Paul, MN 55103

2008 Experience Study – State Employees Retirement Fund

Dear Dave:

The results of the actuarial valuation are based on actuarial methods, procedures and assumptions adopted by the Legislative Commission on Pensions and Retirement (LCPR). These assumptions are used in developing employer contribution rates, disclosing employer liabilities pursuant to GASB requirements and for analyzing the fiscal impact of proposed legislative amendments.

The purpose of this report is to present the results of our review of the actuarial methods and procedures, economic assumptions, and demographic assumptions used in the June 30, 2008 actuarial valuation. Our recommendations represent our best-estimate based on recent experience, future expectations and professional judgment.

The analysis in this study was based on data for the period from July 1, 2004 to June 30, 2008, as provided by the Fund. The Fund's actuary would not customarily verify this data. We have reviewed the information for internal consistency and reasonableness and have no reason to doubt its substantial accuracy.

This report has been prepared exclusively for the State Employees Retirement Fund. Mercer is not responsible for consequences arising from the use of this report for any other purposes.

We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate. The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Sincerely,

Mike Moehle

Bonnie J. Wurst

Michael Moehle, FSA, EA, MAAA

Bonnie Wurst, ASA, EA, MAAA

The information contained in this document (including any attachments) is not intended by Mercer to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer.

Contents

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Executive Summary

This report has been prepared by Mercer for the State Employees Retirement Fund in order to analyze the Fund's experience from July 1, 2004, through June 30, 2008, and to develop recommendations for changes in valuation methods, allocation procedures, economic assumptions, and demographic assumptions.

A brief summary of our recommendations are as follows:

Actuarial Methods	No changes to current actuarial methods
Economic Assumptions	Reduce the real wage growth assumption from 1.50% to 1.00% Reduce the payroll growth assumption from 4.50% to 4.00% Reduce the investment return assumption from 8.50% to 8.00% Reduce overall salary increases and change from an age-based table to a service-based table
Demographic Assumptions	Change the basis for several of the assumptions and make adjustments to several other current assumptions to more closely match experience.

A valuation assumption which is outside the scope of this experience study is the Combined Service Annuity load factor. Currently, active liabilities are increased 1.2% and deferred vested liabilities are increased 40.0% to account for the effect of some members being eligible for a Combined Service Annuity. This assumption has been unchanged since 2002. We recommend that actual Combined Service Annuity data be collected and reviewed in order to determine whether the current factors are appropriate.

Executive Summary

Actuarial Methods

We recommend no changes to the actuarial methods.

Economic Assumptions

Real Wage Growth

Based on our analysis of actual growth in real National Average Wages over the last 50 years, we are recommending changing the current assumption from 1.50% to 1.00%.

Payroll Growth

Based on our recommended change in the Real Wage Growth assumption, we recommend changing the current assumption from 4.50% to 4.00%.

Salary Increases

We recommend changing the salary increase rates from a five-year select and ultimate basis to a service based table which reflects lower expected salary increases.

Investment Return

Based on our analysis of anticipated returns for asset classes included in the target asset allocation, we are recommending changing the current assumption from 8.50% to 8.00%.

Demographic Assumptions

Healthy Post Retirement Mortality

Mortality rates are used to project the length of time benefits will be paid to current and future retirees and beneficiaries. We recommend a change to a more recent mortality table to better anticipate current and future mortality patterns.

Pre-retirement Mortality

In conjunction with our recommended change for healthy retiree mortality, we recommend a change to a more recent mortality table with adjustments.

Disabled Post Retirement Mortality

In conjunction with our recommended change for healthy retiree mortality, we recommend a change to a more recent disabled mortality table with adjustments.

Retirement from Active Status

Retirement rates are used to predict when active members will elect to begin receiving retirement benefits. We recommend lowering the retirement rates to reflect retirement patterns observed over the last two four-year experience study periods.

Executive Summary

Annuity Form Elections at Retirement

We recommend making minor adjustments to the percentages of retirees who are married, the age difference between retirees and beneficiaries, and the percentages of retirees electing the optional forms of benefit at retirement.

Disability Retirement

We recommend a minor reduction in disability rates for male members.

Termination Rates

We recommend changing the termination rates from a three-year select basis to an age and service based table which reflects higher expected turnover.

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Actuarial Methods

Overview

Actuarial methods and allocation procedures are used as part of the valuation to determine actuarial accrued liabilities, to determine normal costs, to allocate costs to individual employers and to amortize accrued unfunded liabilities (UAL). We used the following objectives to recommend actuarial methods and allocation procedures:

- Transparency of costs and funded status
- Predictable and stable employer contribution rates
- Protection of the plan's funded status
- Equity across generations
- Actuarial soundness
- Compliance with GASB requirements

We recommend no changes to the fundamental actuarial methods at this time. Consistent with our analysis from earlier this year, we recommend continued consideration of a corridor, such as 80% to 120%, which would limit the actuarial value of assets to ensure that it does not get too far from actual market value.

The actuarial methods used for the June 30, 2008 actuarial valuation are shown in the table on the next page.

Actuarial Methods

Method	June 30, 2008 Method	Recommendations
Cost method	Entry Age Normal	No change
UAL amortization method	UAL (Unfunded Accrued Liability) amortized as a level percent of payroll	No change
UAL amortization period	A closed period ending June 30, 2020. If there is a negative Unfunded Actuarial Accrued Liability, the surplus amount shall be amortized over 30 years as a level percentage of payroll If there is an increase in the unfunded accrued liability due to a change in the actuarial assumptions, plan provisions, or actuarial cost method, a new amortization period is determined. This new amortization period is determined by blending the period needed to amortize the prior unfunded actuarial accrued liability over the prior amortization period and the increase in unfunded actuarial accrued liability amortized over 30 years. If there is a decrease in the unfunded accrued liability, no change is made to the amortization period.	No change
Asset valuation method	The assets are valued based on a five-year moving average of expected and market values (five-year average actuarial value) determined as follows: ▪ At the end of each plan year, an average asset value is calculated as the average of the market asset value at the beginning and end of the fiscal year net of investment income for the fiscal year; ▪ The investment gain or (loss) is taken as the excess of actual investment income over the expected investment income based on average asset value as calculated above; ▪ The investment gain or (loss) so determined is recognized over five years at 20% per year; ▪ The asset value is the sum of the expected asset value plus the schedule recognition of investment gains or (losses) during the current and the preceding four plan years. The asset valuation method of the Minnesota Post Retirement Investment Fund (Post Fund) was market value without smoothing. As of the date of this report, the Post Fund has been dissolved and its assets reassigned to each applicable active fund. Effective July 1, 2009, the Post Fund assets will be smoothed in a manner similar to the active fund assets, and 80% of the Post Fund investment gain or loss for the fiscal year ending June 30, 2009 will be deferred.	No change

The funding method is described in greater detail on the following page.

Actuarial Methods

Actuarial Cost Method

The total cost of the Fund, over time, will be equal to the benefits paid less investment earnings and is not affected directly by the actuarial cost method. The actuarial cost method is simply a tool to assign costs to past, current or future years and, thus, primarily affects the timing of contributions.

Liabilities and contributions in this report are computed using the Individual Entry Age Normal Cost Method. This method is prescribed by Minnesota Statutes.

The objective under this method is to fund each participants' benefits under the Plan as payments which are level as a percentage of salary, starting at original participation date (or employment date), and continuing until the assumed retirement termination, disability or death.

At the time the funding method is introduced, there will be a liability which represents the contributions which would have been accumulated if this method of funding had always been used. The difference between this liability and the assets (if any) which are held in the fund is the unfunded liability which is typically funded over a chosen period in accordance with the amortization schedule.

A detailed description of the calculation follows:

The normal costs for each active participant under the assumed retirement age is determined by applying to earnings the level percentage of salary which, if contributed each year from date of entry into the Plan until the assumed retirement (termination, disability or death) date, is sufficient to provide the full value of the benefits expected to be payable.

The present value of future normal costs is the total of the discounted values of all active participants' normal cost, assuming these to be paid in each case from the valuation date until retirement (termination, disability or death) date.

The present value of projected benefits is calculated as the value of all benefit payments expected to be paid to the Plan's current participants, including active and retired members, beneficiaries, and terminated members with vested rights.

The accrued liability is the excess of the present value of projected benefits over the present value of future normal cost.

The unfunded liability is the excess of the accrued liability over the assets of the fund, and represents that part of the accrued liability which has not been funded by accumulated past contributions.

We recommend no change to the actuarial cost method.

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Economic Assumptions

Overview

Actuaries have traditionally been involved in the selection of economic assumptions and actuarial standards provide parameters for doing so. However, while actuaries have expertise in making sure assumptions are internally consistent within a model, actuaries have no more expertise in selecting many of the economic assumptions than do certain other professionals, e.g. economists. In truth, selecting inflation and rate of return assumptions is more of a science; because, no one knows future outcomes with any certainly. Actuaries must make "educated guesses" using professional judgment applied to historical information and estimates of future outcomes. As such, this report contains one set of economic assumptions that we would categorize as our best estimate. However, other sets of assumptions may be equally valid.

Actuarial Standard of Practice (ASOP) No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations,* provides guidance on selecting economic assumptions used in measuring obligations under defined benefit pension plans. ASOP No. 27 suggests that economic assumptions be developed using the actuary's professional judgment, taking into consideration past experience and the actuary's expectations regarding the future. The process for selecting economic assumptions involves:

- Identifying components of each assumption and evaluating relevant data;
- Developing a best-estimate range for each economic assumption; and
- Evaluating measurement specific factors and selecting a point within the best-estimate range.

A summary of the economic assumptions used for the June 30, 2008 actuarial valuation and recommended changes are shown below:

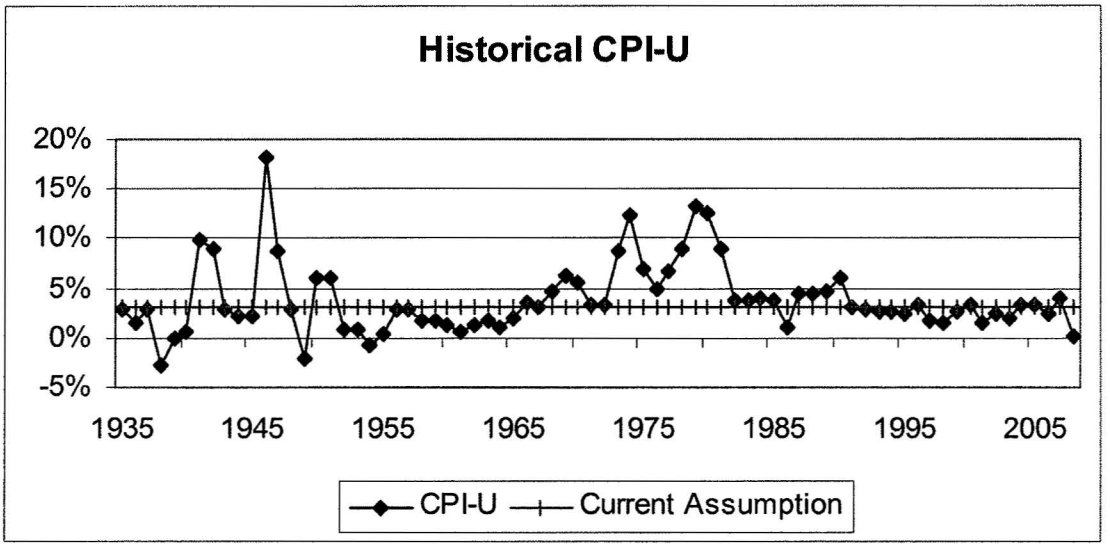
Assumption	June 30, 2008 Assumption	Recommended Assumption
Inflation	3.00%	No Change
Real wage growth (productivity)	1.50%	1.00%
Payroll growth	4.50%	4.00%
Salary Growth	Age related table	Service related table
Regular investment return	8.50%	8.00%

Economic Assumptions

The recommended assumptions shown above, in our opinion, were selected in a manner consistent with the requirements of ASOP No. 27. Each of the above assumptions is described in detail below and on the following pages.

Inflation

The assumed inflation rate is the starting point for all of the other economic assumptions. It affects other assumptions including payroll growth, investment return, and salary increase rates.



In selecting an appropriate inflation assumption, we consider both historical data and expected future inflation. The chart above shows the annual inflation rate for the years ending December 31 from 1935 through 2008 as reported by the Bureau of Labor Statistics. The mean and median annual rates over this period are 3.76% and 2.99% respectively.

Mercer Investment Consulting's best estimate of expected long-term inflation is a rate of 2.8% as of January 1, 2009. We also considered Social Security's current intermediate inflation assumption of 2.8%, and SBI's current inflation estimate of 3.0%.

Using Mercer's 2.8% assumption as a starting point, our best-estimate range for the inflation assumption is from 2.3% to 3.3%. Based on the potentially inflationary effects of the recent economic stimulus packages, we believe that inflation will be on the higher side of that range, and recommend no change to the assumed annual inflation rate of 3.0%.

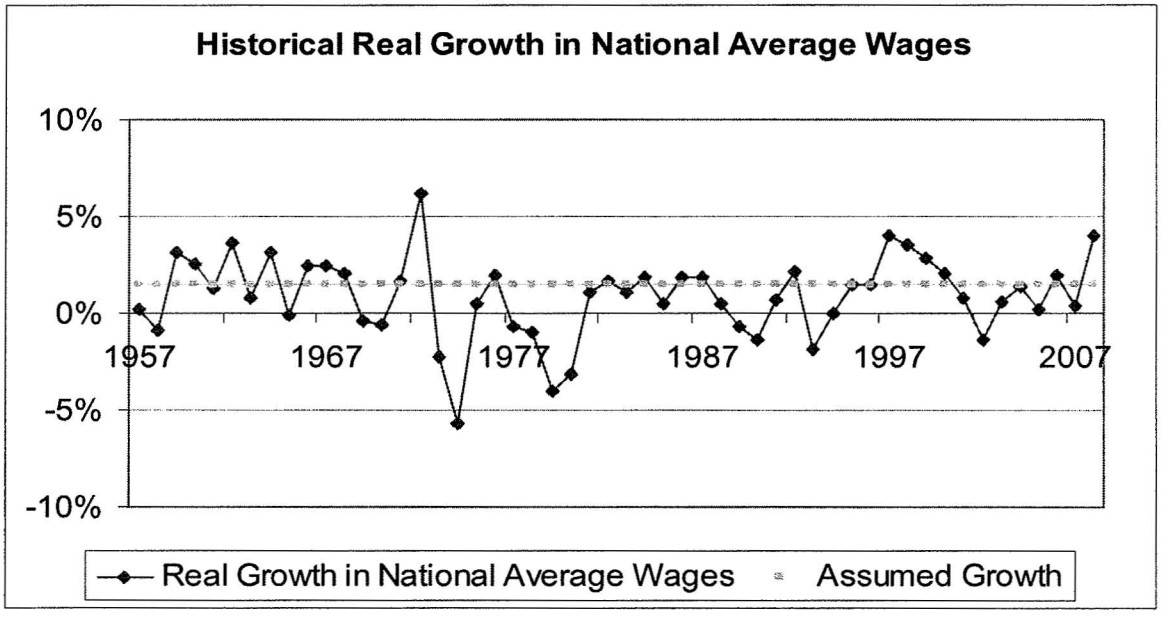
Real Wage Growth

Real wage growth represents the increase in wages above inflation for the entire group due to improvements in productivity and competitive pressures. Merit and longevity wage growth, in contrast, represent the increases in wages for an individual due to factors such as performance, promotion, or seniority.

Economic Assumptions

Real wage growth combined with inflation represents the expected growth in total payroll for a stable population. Changes in payroll due to an increase or decline in the covered population are not captured by this assumption.

The chart below shows the real growth in national average wages over the past fifty years based on data compiled by the Social Security Administration.



While the change in any one year has been volatile, the change over longer periods of time is more stable as shown in the table below.

Length of Period Ending June 30, 2008	Average Real Growth in National Average Wages
10 years	1.24%
20 years	0.94%
30 years	0.67%
40 years	0.56%
50 years	0.81%

Mercer's economic modeling suggests a reasonable expectation of average real growth in wages is from 0.50% to as much as 1.50%. Based on the table above, we recommend changing the current assumption of 1.50% to 1.00%.

Economic Assumptions

Payroll Growth

The payroll growth assumption is used to develop the annual amount necessary to amortize the unfunded actuarial liability as a level percentage of expected payroll.

Payroll growth is the sum of inflation and real wage growth. Since we are recommending a change in the real wage growth assumption, we recommend a corresponding change in the payroll growth assumption, from 4.50% to 4.00%.

Salary Increases

Using the building block approach recommended in ASOP 27, this assumption is composed of three components;

- Inflation
- Productivity
- Merit/promotion

The inflation and productivity components are combined to produce the assumed rate of wage inflation. This rate represents the "across the board" average annual increase in salaries shown in the experience data. The merit component includes the additional increases in salary due to individual performance, seniority, promotions, etc.

Our proposed salary increase table has some rates that are less than the assumed payroll growth of 4% for service of 14 or more years, which implies a negative merit/promotion component. Actual experience for the past 8 years supports the negative merit/promotion, with consistent plan experience below the national wage increase at advanced age and/or service.

This assumption is typically correlated to years of service, especially at lower years of service, and the current age based table incorporates a 5 year select period. During the 5-year select period, 0.60% x (5-T) is added to the ultimate rate, where T is completed years of service.

We reviewed the annual salary increases for the period July 1, 2004 through June 30, 2008 by both age and service. The data group was continuing active members with two consecutive full years of employment. For the salary analysis, we excluded some of the most dramatic salary changes. We excluded the lowest 2.5% and the highest 2.5% for a total of 5.0% of records excluded. While this was a relatively small group, their salary increases distorted the experience of the overall group of continuing active members. We also excluded people with less than one year of service for the same reason.

Economic Assumptions

The following chart shows the actual and expected salary increases in 5-year age bands, for service in the 5-year select period and for service beyond the 5-year select period.

Salary Increase

	Service less than 5 years			Service at least 5 years			Total		
Age Group	Exposures	Observed Average	Expected Average	Exposures	Observed Average	Expected Average	Exposures	Observed Average	Expected Average
<20	15	12.21%	7.96%				15	12.21%	7.96%
20-24	1,571	8.45%	7.66%	71	6.58%	5.75%	1,642	8.37%	7.58%
25-29	5,729	7.38%	7.26%	2,209	5.76%	5.75%	7,938	6.93%	6.84%
30-34	4,597	6.81%	7.16%	5,497	5.45%	5.75%	10,094	6.07%	6.39%
35-39	3,969	7.38%	7.15%	9,649	5.16%	5.75%	13,618	5.81%	6.16%
40-44	3,964	7.98%	7.09%	15,902	4.49%	5.69%	19,866	5.19%	5.97%
45-49	3,855	8.07%	6.63%	23,227	3.94%	5.25%	27,082	4.53%	5.45%
50-54	3,405	7.26%	6.13%	27,760	3.61%	4.75%	31,165	4.01%	4.90%
55-59	2,277	7.49%	5.68%	23,723	3.24%	4.31%	26,000	3.61%	4.43%
60-64	937	7.09%	5.62%	9,185	2.82%	4.25%	10,122	3.22%	4.38%
65-69	256	7.72%	5.56%	1,555	2.74%	4.25%	1,811	3.44%	4.43%
70-75	120	3.09%	5.77%	407	2.17%	4.25%	527	2.38%	4.60%
Total	**30,695**	**7.49%**	**6.84%**	**119,185**	**3.89%**	**4.98%**	**149,880**	**4.63%**	**5.36%**

Economic Assumptions

The actual experience shows that the current assumption is too low during the 5 year select period for most ages. For service beyond 5 years, the current assumption is too high at most ages. The observed salary increases tended to follow service more closely than age. Therefore, we are recommending a service based table.

Based on the experience from the last four years, and our expectations for inflation and productivity, our recommended salary increase assumption is shown below:

Service	Exposures	Observed Average	Expected Average	Proposed Average
1	5,376	11.75%	7.84%	10.50%
2	9,300	7.47%	7.22%	8.10%
3	8,134	6.38%	6.59%	6.90%
4	7,886	5.88%	5.95%	6.20%
5	8,055	5.46%	5.33%	5.70%
6	7,926	5.21%	5.30%	5.30%
7	7,206	5.23%	5.27%	5.00%
8	5,875	5.07%	5.25%	4.70%
9	4,960	4.74%	5.21%	4.50%
10	4,305	4.62%	5.18%	4.40%
11	3,945	4.45%	5.15%	4.20%
12	3,880	3.96%	5.12%	4.10%
13	3,664	4.20%	5.08%	4.00%
14	3,931	3.53%	5.06%	3.80%
15	4,057	3.66%	5.03%	3.70%
16	4,255	3.32%	5.00%	3.60%
17	4,422	3.58%	4.98%	3.50%
18	4,096	3.32%	4.95%	3.50%
19	3,929	3.33%	4.92%	3.50%
20	3,772	3.32%	4.92%	3.50%
21	3,487	3.12%	4.90%	3.50%
22	3,126	3.17%	4.90%	3.50%
23	2,953	3.31%	4.87%	3.50%
24	2,941	3.30%	4.85%	3.50%
25	3,178	3.14%	4.80%	3.50%
26	3,250	2.89%	4.75%	3.50%
27	3,203	2.81%	4.70%	3.50%
28	2,901	2.91%	4.65%	3.50%
29	2,681	3.19%	4.60%	3.50%
30	2,475	2.93%	4.57%	3.50%
31+	10,711	2.76%	4.57%	3.50%
Total	**149,880**	**4.63%**	**5.36%**	**4.81%**

Economic Assumptions

Investment Return

The assumed rate of investment return is used to discount the future expected benefit payments from the retirement plan to the valuation date. As such, it is one of the most important assumptions used in valuing the plan's liabilities and developing contribution rates. The assumption is intended to reflect the long-term expected return on the portfolio of assets that fund the benefits.

Investment return assumptions can be calculated using an arithmetic or geometric approach. In any given year, the approaches produce the same result. But when viewed over a period of time, the difference in approach can become significant. For example, consider a pension plan that earned 16% in the first year, and then earned nothing in the second year. The arithmetic average return is calculated by adding 16% plus 0%, and then dividing by 2, to get 8%. But this result is misleading. If the plan started with $1,000, then at the end of the period it would have $1,160. But if it had actually earned 8% each year, it would have had $1,166 [$1,000 times 1.08 times 1.08.] The actual average return, calculated on a compound (geometric) basis is 7.7% [$1,000 times 1.077 times 1.077 equals $1,160.] Unless the assets earn the same rate of return every year, geometric return will always be less than arithmetic return. Because the actuarial investment return assumption is used to project compound growth in assets over many years, it needs to be a geometric return assumption.

To develop our recommended investment return assumption, we use Mercer Investment Consulting's long-term return assumptions for each of the asset classes in which the plan is invested. Each asset class assumption is based on a consistent set of underlying assumptions, including the inflation assumption, which is currently 2.8%. These assumptions are not based on historical returns, but instead are based on a forward-looking economic model.

We then increase the returns to reflect the difference between the 2.8% underlying inflation expectation and our 3.0% best estimate used elsewhere in the valuation. Although the recent potentially inflationary spending increases our expected long term inflation by 0.2%, the economic stimulus package's infusion of capital into the marketplace will increase the supply of funds and therefore reduce the cost of capital (i.e. investment returns). While predicting the exact effect of the increased supply is impossible, a reasonable estimate is that half the increase in the inflation rate will be realized in investment returns. As such the net increase in expected return for the additional inflation/capital supply is 0.1%.

The result of our best estimate investment return calculation is 8.1%, and we would be comfortable using that assumption. However, such an assumption implies far more precision than is possible. Rates are frequently rounded to the nearest quarter percent, and as such **we suggest that 8.0% be adopted as the investment return assumption**.

Economic Assumptions

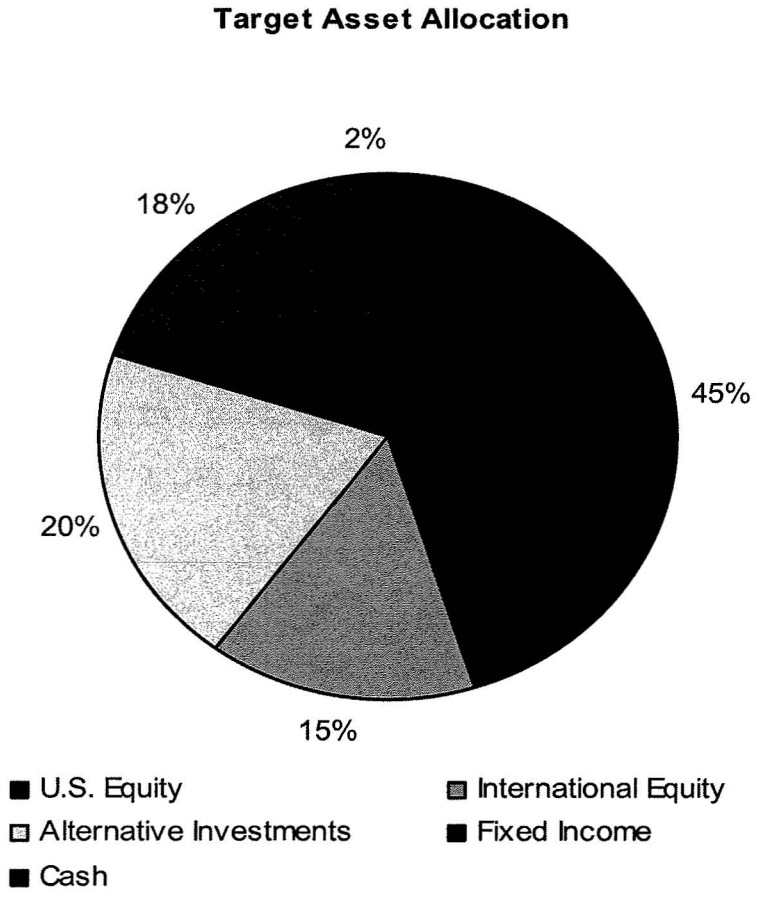
Investment Return Risk

The assets of the plan are invested in non risk-free securities. As such, future taxpayers are taking the risk associated with deviation from expected returns. Using a median expected return assumption would balance the likely upside and downside risk, but does not compensate those taxpayers for taking risk. Using an expected return assumption higher than the median shifts the balance so that future taxpayers are more likely to experience cost increases than decreases. Using an expected return assumption lower than the median shifts the balance so that future taxpayers are more likely to experience cost decreases than increases, although some of the decrease could be viewed as compensation for the risk being taken.

Details of our calculations are shown on the following pages.

Target Asset Allocation

We understand the plan's target asset allocation is as follows:



Economic Assumptions

Best Estimate Investment Return Development

Based on the target allocation and investment return assumptions for each of the asset classes, our best estimate assumption is developed as follows:

Asset Class	Target Allocation	Annual Geometric Return	Annual Arithmetic Return	Standard Deviation
U.S. Equity – Large Cap	42.6%	8.2%	9.6%	17.9%
U.S. Equity – Small Cap	2.4%	8.5%	11.0%	24.0%
Private Equity	10.6%	9.6%	13.0%	28.4%
Mezzanine Debt	4.1%	8.5%	10.2%	19.4%
International Equity	12.0%	8.4%	9.9%	18.4%
Emerging Markets Equity	3.0%	8.4%	11.3%	26.0%
U.S. Fixed Income	18.0%	4.7%	4.8%	5.5%
Real Estate	3.8%	7.4%	8.2%	13.7%
Resource	1.5%	4.6%	6.1%	18.0%
Cash	2.0%	3.5%	3.5%	1.3%
Portfolio – Gross	**100%**	**8.2%**	**9.0%**	**13.3%**

Based on capital market expectations developed by Mercer Investment Consulting as of January 1, 2009.

Gross Geometric Expected Return	8.2%
Increase in Expected Return from Net Inflation/Capital Supply Adjustment Described Above	0.1%
Assumed Investment Expenses	(0.2%)
Net Geometric Expected Return – Best Estimate	8.1%

Economic Assumptions

Best Estimate Range

At Mercer, once the actuary develops the expected return assumption in accordance with the requirements of ASOP No. 27, an independent verification is performed by comparing the expected return to the range of returns developed using Mercer's Portfolio Return Calculator and the asset class returns developed by Mercer Investment Consulting as of January 1, 2009. Our best-estimate range under our assumptions is from 7.0% to 9.3% with a median expected return of 8.1%.

Percentile	Net Investment Return
35th	7.0%
40th	7.4%
45th	7.7%
50th	8.1%
55th	8.5%
60th	8.9%
65th	9.3%

The current assumption of 8.5% represents approximately the 55th percentile of expected returns for the portfolio. This means that there is a 55% probability that asset returns will be less than 8.5% and a 45% probability that asset returns will be greater than 8.5%.

Additional Details

Following are details of the development of our best estimate investment return assumption. The calculation is based on the following parameters:

- **U.S. Equity** – Based on target percentages of 94.7% large cap and 5.3% small cap[1].
- **International Equity** – 20% of the allocation is assumed to be emerging markets equity.
- **Fixed Income** – Based on a benchmark of the Barclays Aggregate[1].
- **Alternative Investments** – The current actual alternative investment allocation is as follows: 9.2% Private Equity, 3.3% Real Estate, 3.5% Mezzanine Debt, and 1.3% Resource, for a total of 17.3% alternative investments[1]. In our best estimate development, we use the target alternative investment allocation of 20% and assume the proportions of the types of alternative investments remain the same.
  - **Mezzanine Debt** – Mercer Investment Consulting does not develop capital market assumptions for Mezzanine Debt. We used the return and standard deviation assumptions for Mezzanine Private Equity as a proxy.
  - **Resource** – We used the return and standard deviation assumptions for Commodities for this asset class.
- **Expenses** – Plan expenses paid out of the trust need to be taken into account when determining plan costs, either through a reduction in the expected return on assets, or through an explicit load in the calculation of the plan's normal cost. Plan expenses fall into two categories, administrative expenses and investment management and trustee fees.

[1] Information provided by Howard Bicker in a memo dated April 16, 2009.

Economic Assumptions

- **Administrative expenses** – These expenses are taken into account through an explicit load in the calculation of the plan's normal cost, so no adjustment needs to be made to the expected return on plan assets.
- **Investment management and trustee fees** – We assume 20 basis points in expenses based on passive investments. To the extent the plan is not invested in passive funds, we assume the alpha for active management is equal to the additional fees for active management above the typical fees for passive management.

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Demographic Assumptions

Overview

Actuarial Standard of Practice (ASOP) No. 35, *Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations,* provides guidance on selecting demographic assumptions used in measuring obligations under defined benefit pension plans. The general process for recommending demographic assumptions as defined in ASOP No. 35 is as follows:

- Identify the types of assumptions;
- Consider the relevant assumption universe;
- Consider the assumption format;
- Select the specific assumptions; and
- Evaluate the reasonableness of the selected assumption.

The purpose of the demographic experience study is to compare actual experience against expected experience based on the assumptions used in the most recent actuarial valuation. The observation period used in this study is July 1, 2004 through June 30, 2008, and the current assumptions are those adopted by the LCPR for the June 30, 2008 actuarial valuation. If the actual experience differs significantly from the overall expected experience, or if the pattern of actual decrements by age, sex, or duration does not follow the expected pattern, new assumptions are considered.

Demographic Assumptions

The demographic assumptions used for the June 30, 2008, actuarial valuation and the recommended assumptions for the June 30, 2009, actuarial valuation are shown in detail in the following sections.

A summary of the recommended changes are as follows:

- Change in the healthy retiree mortality assumption to a more recent mortality table
- Change in the pre-retirement mortality assumption to a more recent mortality table
- Change in the disabled retirement mortality assumption to a more recent mortality table
- Reductions in retirement rates
- Adjustments to beneficiary age and optional form election assumption
- Reduction in the disability incidence assumption for males
- Changes in the termination assumption to an age and service based assumption which reflects higher expected turnover

The recommended assumptions, in our opinion, were selected in a manner consistent with the requirements of ASOP No. 35.

Demographic Assumptions

Mortality Assumptions

Mortality rates are used to project the length of time benefits will be paid to current and future retirees and beneficiaries. The selection of a mortality assumption affects plan liabilities because the value of retiree benefits depends on how long the benefit payments are expected to continue. There are clear differences in the mortality rates among males and females, healthy retired members, disabled retired members and non-retired members. As a result, each of these groups is reviewed independently.

A summary of the current assumed mortality rates is shown below:

Assumption	Current Assumption	Recommended Assumption
Healthy Postretirement Mortality	1983 Group Annuity Mortality	RP 2000 annuitant generational mortality, white collar adjustment
Males	Set back 2 years	No setbacks
Females	Set back 1 year	No setbacks
Disabled Retired Mortality	1965 RRB rates through age 54. For ages 55 to 64, graded between 1965 RRB rates and the health postretirement mortality table. For ages 65 and later, the healthy postretirement mortality table.	RP 2000 disabled mortality, white collar adjustment No setback for males Set forward 5 years for females
Healthy Preretirement Mortality	1983 Group Annuity Mortality	RP 2000 non-annuitant generational mortality, white collar adjustment
Males	Set back 5 years	Set forward 3 years
Females	Set back 2 years	Set back one year

Healthy Postretirement Mortality

Mortality assumptions for healthy retired members are separated based on gender.

Life expectancies are expected to improve in the future, and this increased longevity should be reflected in the actuarial valuation through lower mortality rates than indicated by current experience. To determine whether the current mortality assumption remains reasonable, we calculated the ratio of actual to expected (A/E) deaths during the experience study period for each of the gender groups. For a static mortality table such as the current assumption, A/E ratios are targeted at or near 110 percent, in order to provide a margin for future mortality improvement. For a generational mortality table that incorporates improvements in mortality each year into the future, A/E ratios are targeted near 100%.

Demographic Assumptions

The following chart shows the exposures, actual deaths, expected deaths under the current assumption and actual to expected ratios for males and females for each of the years in the experience study.

			Current (June 30, 2008) Assumption	
Healthy Postretirement Mortality	**Exposures**	**Actual Deaths**	**Expected Deaths**	**A/E Ratio**
Males				
July 1, 2004 to June 30, 2005	9,798	408	357	114%
July 1, 2005 to June 30, 2006	10,002	351	366	96%
July 1, 2006 to June 30, 2007	10,353	352	381	92%
July 1, 2007 to June 30, 2008	10,836	405	396	102%
July 1, 2004 to June 30, 2008	**40,989**	**1,516**	**1,500**	**101%**
Females				
July 1, 2004 to June 30, 2005	11,158	421	329	128%
July 1, 2005 to June 30, 2006	11,545	371	338	110%
July 1, 2006 to June 30, 2007	12,072	400	356	112%
July 1, 2007 to June 30, 2008	12,687	418	371	113%
July 1, 2004 to June 30, 2008	**47,462**	**1,610**	**1,394**	**115%**

The actual experience shows that the current assumption for female retirees is predicting too few retiree deaths. Given that the current table is based on experience that is over a quarter century old, we are recommending a change to the RP 2000 generational white collar annuitant mortality tables with no adjustments.

The following chart shows the exposures, actual deaths, expected deaths under the proposed assumption and actual to expected ratios for males and females for each of the four years in the experience study.

			Proposed Assumption	
Healthy Postretirement Mortality	**Exposures**	**Actual Deaths**	**Expected Deaths**	**A/E Ratio**
Males				
July 1, 2004 to June 30, 2005	9,798	408	348	117%
July 1, 2005 to June 30, 2006	10,002	351	353	99%
July 1, 2006 to June 30, 2007	10,353	352	366	96%
July 1, 2007 to June 30, 2008	10,836	405	377	107%
July 1, 2004 to June 30, 2008	**40,989**	**1,516**	**1,444**	**105%**
Females				
July 1, 2004 to June 30, 2005	11,158	421	385	109%
July 1, 2005 to June 30, 2006	11,545	371	395	94%
July 1, 2006 to June 30, 2007	12,072	400	413	97%
July 1, 2007 to June 30, 2008	12,687	418	429	97%
July 1, 2004 to June 30, 2008	**47,462**	**1,610**	**1,622**	**99%**

Demographic Assumptions

A summary of the current and recommended healthy retired mortality assumptions is shown below:

	Current (June 30, 2008) Assumption	Recommended Assumption
Basic Tables	1983 Group Annuity Mortality	RP 2000 annuitant generational mortality, white collar adjustment
Males	Set back 2 years	No setbacks
Females	Set back 1 year	No setbacks

Preretirement Mortality

The preretirement mortality assumption applies to active members and inactive members (those members who have terminated employment but are vested and entitled to a future benefit). The pre-retirement mortality assumption is based on 1983 Group Annuity Mortality. A/E ratios for non-retired members have been targeted at 100 percent.

			Current (June 30, 2008) Assumption	
Preretirement Mortality	**Exposures**	**Actual Deaths**	**Expected Deaths**	**A/E Ratio**
Males				
July 1, 2004 to June 30, 2005	25,368	54	68	80%
July 1, 2005 to June 30, 2006	25,605	57	71	80%
July 1, 2006 to June 30, 2007	25,943	47	74	63%
July 1, 2007 to June 30, 2008	26,222	71	77	92%
July 1, 2004 to June 30, 2008	**103,138**	**229**	**290**	**79%**
Females				
July 1, 2004 to June 30, 2005	33,510	44	47	93%
July 1, 2005 to June 30, 2006	33,782	40	50	80%
July 1, 2006 to June 30, 2007	34,798	53	53	100%
July 1, 2007 to June 30, 2008	35,414	38	55	69%
July 1, 2004 to June 30, 2008	**137,504**	**175**	**205**	**85%**

Discussion

With the very limited number of deaths in the experience period, the A/E ratio tends to fluctuate year to year, but overall the current assumption is predicting too many deaths for active employees. Similar to our recommended change to healthy postretirement mortality, we are recommending a change to the RP 2000 generational white collar non-annuitant mortality tables, set forward 3 years for males and set back 1 year for females.

Demographic Assumptions

Preretirement Mortality

The following chart shows the exposures, actual deaths, expected deaths under the proposed assumption and actual to expected ratios for males and females for each of the four years in the experience study.

			Proposed Assumption	
Preretirement Mortality	**Exposures**	**Actual Deaths**	**Expected Deaths**	**A/E Ratio**
Males				
July 1, 2004 to June 30, 2005	25,368	54	58	93%
July 1, 2005 to June 30, 2006	25,605	57	59	97%
July 1, 2006 to June 30, 2007	25,943	47	60	78%
July 1, 2007 to June 30, 2008	26,222	71	61	116%
July 1, 2004 to June 30, 2008	**103,138**	**229**	**238**	**96%**
Females				
July 1, 2004 to June 30, 2005	33,510	44	43	102%
July 1, 2005 to June 30, 2006	33,782	40	44	91%
July 1, 2006 to June 30, 2007	34,798	53	46	115%
July 1, 2007 to June 30, 2008	35,414	38	47	81%
July 1, 2004 to June 30, 2008	**137,504**	**175**	**180**	**97%**

A summary of the current and recommended pre-retirement mortality assumptions is shown below:

	Current (June 30, 2008) Assumption	**Recommended Assumption**
Basic Tables	1983 Group Annuity Mortality	RP 2000 non-annuitant generational mortality, white collar adjustment
Males	Set back 5 years	Set forward 3 years
Females	Set back 2 years	Set back one year

Demographic Assumptions

Disabled Retired Mortality

Disabled members are expected to have a shorter life expectancy than healthy retired members. In addition, future life expectancies for disabled members are not expected to increase as significantly as the future life expectancies for healthy retirees. A/E ratios for disabled retirees have been targeted near 100 percent.

			Current (June 30, 2008) Assumption	
Disabled Mortality	**Exposures**	**Actual Deaths**	**Expected Deaths**	**A/E Ratio**
Males				
July 1, 2004 to June 30, 2005	670	36	24	150%
July 1, 2005 to June 30, 2006	696	46	25	184%
July 1, 2006 to June 30, 2007	711	33	25	132%
July 1, 2007 to June 30, 2008	735	38	25	152%
July 1, 2004 to June 30, 2008	**2,812**	**153**	**99**	**155%**
Females				
July 1, 2004 to June 30, 2005	701	27	23	117%
July 1, 2005 to June 30, 2006	741	39	24	163%
July 1, 2006 to June 30, 2007	780	32	24	133%
July 1, 2007 to June 30, 2008	795	24	24	100%
July 1, 2004 to June 30, 2008	**3,017**	**122**	**95**	**128%**

Discussion

The actual experience shows that the current assumption for disabled retirees is predicting too few deaths. We are recommending a change in this assumption to use the RP 2000 white collar disabled mortality tables, with no adjustment for males and set forward 5 years for females.

The following chart shows the exposures, actual deaths, expected deaths under the proposed assumption and actual to expected ratios for males and females for each of the four years in the experience study.

Demographic Assumptions

Disabled Retired Mortality

			Proposed Assumption	
Disabled Mortality	**Exposures**	**Actual Deaths**	**Expected Deaths**	**A/E Ratio**
Males				
July 1, 2004 to June 30, 2005	670	36	35	103%
July 1, 2005 to June 30, 2006	696	46	37	124%
July 1, 2006 to June 30, 2007	711	33	37	89%
July 1, 2007 to June 30, 2008	735	38	39	97%
July 1, 2004 to June 30, 2008	**2,812**	**153**	**148**	**103%**
Females				
July 1, 2004 to June 30, 2005	701	27	28	96%
July 1, 2005 to June 30, 2006	741	39	29	134%
July 1, 2006 to June 30, 2007	780	32	29	110%
July 1, 2007 to June 30, 2008	795	24	30	80%
July 1, 2004 to June 30, 2008	**3,017**	**122**	**116**	**105%**

A summary of current and recommended disabled retiree mortality assumptions is shown below:

	Current Assumption	**Recommended Assumption**
Basic Tables	1965 RRB rates through age 54. For ages 55 to 64, graded rates between 1965 RRB rates and the healthy postretirement mortality table. For ages 65 and later, the healthy postretirement mortality table.	RP 2000 disabled mortality, white collar adjustment
Males	No adjustment	No adjustment
Females	No adjustment	Set forward 5 years

Demographic Assumptions

Retirement Assumptions

The retirement assumptions used in the actuarial valuation include the following assumptions:

- Regular retirement from active status
- Rule of 90 retirement from active status
- Retirement from inactive status

Retirement from Active Status

Members are eligible to retire as early as age 55 or earlier if the member has met the Rule of 90 provision and was hired prior to July 1, 1989.

A summary of the early, normal, and unreduced retirement dates under the plan are as follows:

Hire Date	Normal Retirement Age	Early Retirement Age	Unreduced Retirement
Before July 1, 1989	Age 65 and 3 years	Age 55 and 3 years of service, or 30 years of service	Rule of 90 or Age 62 with 30 years of service
July 1, 1989 or later	Social Security Normal Retirement Age, but not later than 66 with 1 year of service	Age 55 and 3 years of service	N/A

In prior Experience Studies, it was observed that members exhibited different retirement patterns based on eligibility for Rule of 90 unreduced benefits. As a result, our analysis focused on these groups. The following chart shows the exposures, actual retirements, expected retirements and actual to expected ratios for each of the years in the experience study for Rule of 90 retirements.

Rule of 90 Retirements	Exposures	Actual Retirements	Current (June 30, 2008) Assumption Expected Retirements	A/E Ratio
Total				
July 1, 2004 to June 30, 2005	1,467	233	382	61%
July 1, 2005 to June 30, 2006	1,711	282	445	63%
July 1, 2006 to June 30, 2007	1,966	379	514	74%
July 1, 2007 to June 30, 2008	2,193	364	573	64%
July 1, 2004 to June 30, 2008	**7,337**	**1,258**	**1,914**	**66%**

Demographic Assumptions

Retirement Assumptions

The following chart shows the exposures, actual retirements, expected retirements under the current assumption and actual to expected ratios for males and females for each of the years in the experience study for Non-Rule of 90 retirements.

			Current (June 30, 2008) Assumption	
Non-Rule of 90 Retirements	**Exposures**	**Actual Retirements**	**Expected Retirements**	**A/E Ratio**
Total				
July 1, 2004 to June 30, 2005	8,188	644	822	78%
July 1, 2005 to June 30, 2006	8,814	717	898	80%
July 1, 2006 to June 30, 2007	9,342	856	958	89%
July 1, 2007 to June 30, 2008	9,767	830	1,021	81%
July 1, 2004 to June 30, 2008	**36,111**	**3,047**	**3,699**	**82%**

Discussion

As was observed in the prior experience study analysis, the actual number of retirements is significantly less than is predicted by both current tables. As a result, we are recommending changes to both tables to more closely match the actual experience.

The following chart shows the exposures, actual retirements, expected retirements under the proposed assumption and actual to expected ratios for each of the years in the experience study for Rule of 90 retirements.

			Proposed Assumption	
Rule of 90 Retirements	**Exposures**	**Actual Retirements**	**Expected Retirements**	**A/E Ratio**
Total				
July 1, 2004 to June 30, 2005	1,467	233	256	91%
July 1, 2005 to June 30, 2006	1,711	282	298	95%
July 1, 2006 to June 30, 2007	1,966	379	348	109%
July 1, 2007 to June 30, 2008	2,193	364	391	93%
July 1, 2004 to June 30, 2008	**7,337**	**1,258**	**1,293**	**97%**

Demographic Assumptions

Retirement Assumptions

The following chart shows the exposures, actual retirements, expected retirements under the proposed assumption and actual to expected ratios for males and females for each of the years in the experience study for Non-Rule of 90 retirements. Note that the proposed rates for Non Rule of 90 retirements produce an actual to expected ratio of 95% for under age 65 experience. The ratio drops to 93% when we factor in the experience for age 65 and older.

Non-Rule of 90 Retirements	Exposures	Actual Retirements	Proposed Assumption Expected Retirements	A/E Ratio
Total				
July 1, 2004 to June 30, 2005	8,188	644	732	88%
July 1, 2005 to June 30, 2006	8,814	717	799	90%
July 1, 2006 to June 30, 2007	9,342	856	849	101%
July 1, 2007 to June 30, 2008	9,767	830	904	92%
July 1, 2004 to June 30, 2008	**36,111**	**3,047**	**3,283**	**93%**

Summary of the current and recommended retirement assumptions is shown below:

	Rule of 90		Non-Rule of 90	
Age	**Current**	**Recommended**	**Current**	**Recommended**
55	25.0%	15.0%	5.0%	5.0%
56	20.0	12.5	5.0	5.0
57	20.0	12.5	5.0	5.0
58	20.0	12.5	5.0	5.0
59	20.0	18.0	5.0	6.0
60	20.0	18.0	10.0	7.0
61	25.0	20.0	10.0	12.0
62	50.0	30.0	25.0	18.0
63	40.0	20.0	20.0	16.0
64	40.0	20.0	20.0	18.0
65	45.0	30.0	45.0	30.0
66	30.0	30.0	30.0	30.0
67	30.0	20.0	30.0	20.0
68	30.0	20.0	30.0	20.0
69	30.0	20.0	30.0	20.0
70	30.0	30.0	30.0	30.0
71	100.0	100.0	100.0	100.0

Demographic Assumptions

Retirement Statistics

The retirement statistics used in the actuarial valuation include the following assumptions:

- Marital status (% married)
- Age of beneficiary
- Annuity form elected at retirement

Marital Status

It is reasonable to assume that married members will make different annuity selections than non-married members. The current (June 30, 2008) valuation assumption is 85% of members are married. The following chart shows the current assumed rates of marriage and the observed experience.

			Current (June 30, 2008) Assumption	
	Total New Retirees	**Actual Married New Retirees**	**Expected Married**	**A/E Ratio**
Males				
July 1, 2004 to June 30, 2005	570	449	485	93%
July 1, 2005 to June 30, 2006	670	516	570	91%
July 1, 2006 to June 30, 2007	786	637	668	95%
July 1, 2007 to June 30, 2008	747	574	635	90%
July 1, 2004 to June 30, 2008	**2,773**	**2,176**	**2,358**	**92%**
Females				
July 1, 2004 to June 30, 2005	612	377	520	73%
July 1, 2005 to June 30, 2006	680	419	578	72%
July 1, 2006 to June 30, 2007	818	522	695	75%
July 1, 2007 to June 30, 2008	745	468	633	74%
July 1, 2004 to June 30, 2008	**2,855**	**1,786**	**2,426**	**74%**

We recommend no change to the assumed males married, and a change from 85% married to 70% married for females.

Demographic Assumptions

Age of Beneficiary

Joint & Survivor annuity benefit amounts are determined based on the member's and beneficiary's age. The current (June 30, 2008) valuation assumption is males are three years older than females. The following chart shows the current assumed age difference and the observed experience.

			Current (June 30, 2008) Assumption	
	Total New Retirees	Average Age Difference	Expected Age Difference	A -E
Males				
July 1, 2004 to June 30, 2005	570	2.92	3.00	(0.08)
July 1, 2005 to June 30, 2006	670	3.16	3.00	0.16
July 1, 2006 to June 30, 2007	786	2.88	3.00	(0.12)
July 1, 2007 to June 30, 2008	747	2.91	3.00	(0.09)
July 1, 2004 to June 30, 2008	**2,773**	**2.97**	**3.00**	**(0.03)**
Females				
July 1, 2004 to June 30, 2005	612	(1.86)	(3.00)	1.14
July 1, 2005 to June 30, 2006	680	(1.63)	(3.00)	1.37
July 1, 2006 to June 30, 2007	818	(1.36)	(3.00)	1.64
July 1, 2007 to June 30, 2008	745	(1.63)	(3.00)	1.37
July 1, 2004 to June 30, 2008	**2,855**	**(1.62)**	**(3.00)**	**1.38**

We recommend changing the age difference assumption from 3 years to 2 years for females.

Annuity Form

Upon retirement, a member can elect any of the following forms of payment:

- Straight life annuity – the benefit is paid for the lifetime of the member. No benefit is payable to a beneficiary upon member's death.
- 15-Year Certain and Life – a reduced benefit is paid for the lifetime of the member. If the member dies before 180 payments have been made, the benefit continues to be paid to a beneficiary until 180 payments have been made.
- 50% Joint & Survivor – a reduced benefit is paid for the lifetime of the member. Upon death of the member, 50% of the benefit is paid to a beneficiary. If the beneficiary predeceases the member, the benefit reverts back to the straight life annuity amount.
- 75% Joint & Survivor – a reduced benefit is paid for the lifetime of the member. Upon death of the member, 75% of the benefit is paid to a beneficiary. If the beneficiary predeceases the member, the benefit reverts back to the straight life annuity amount.
- 100% Joint & Survivor – a reduced benefit is paid for the lifetime of the member. Upon death of the member, 100% of the benefit is paid to a beneficiary. If the beneficiary predeceases the member, the benefit reverts back to the straight life annuity amount.

Demographic Assumptions

The current (June 30, 2008) valuation assumption is as follows:

	Percent of Married Members Electing	
Annuity Form	**Males**	**Females**
Straight Life	30	75
15-Year Certain & Life	0	0
50% Joint & Survivor	20	10
75% Joint & Survivor	0	0
100% Joint & Survivor	50	15

The following chart shows the current assumed annuity selection and the observed experience:

			Current (June 30, 2008) Assumption	
New *Married* Retirees from July 1, 2004 to June 30, 2008	**Total New Married Retirees**	**Actual Electing Annuity Form**	**Expected Electing Annuity Form**	**A/E Ratio**
Males				
Straight Life Annuity	2,176	520	653	80%
15-Year Certain & Life	2,176	10	0	N/A
50% Joint & Survivor	2,176	299	435	69%
75% Joint & Survivor	2,176	225	0	N/A
100% Joint & Survivor	2,176	1,122	1,088	103%
Females				
Straight Life Annuity	1,786	1,000	1,339	75%
15-Year Certain & Life	1,786	15	0	N/A
50% Joint & Survivor	1,786	227	179	127%
75% Joint & Survivor	1,786	108	0	N/A
100% Joint & Survivor	1,786	436	268	163%

We recommend the following changes to the annuity selection assumption:

	Percent of Married Members Electing			
	Current (June 30, 2008)		Recommended	
Annuity Form	**Males**	**Females**	**Males**	**Females**
Straight Life	30	75	25	60
15-Year Certain & Life	0	0	0	0
50% Joint & Survivor	20	10	15	15
75% Joint & Survivor	0	0	10	0
100% Joint & Survivor	50	15	50	25

Demographic Assumptions

Disability Assumptions

The Plan provides disability benefits to members. Members are eligible for disability benefits if they become totally and permanently disabled after three years of service but prior to normal retirement eligibility.

Disability Retirement

We analyzed disability incidence rates as a single group covering all members, with rates developed for 5-year age bands.

The following chart shows the exposures, actual retirements, expected retirements under the current assumption and actual to expected ratios for males and females for each of the years in the experience study for disability retirements.

			Current (June 30, 2008) Assumption	
	Exposures	Actual Disabilities	Expected Disabilities	A/E Ratio
Males				
July 1, 2004 to June 30, 2005	20,585	49	60	82%
July 1, 2005 to June 30, 2006	20,627	57	63	91%
July 1, 2006 to June 30, 2007	20,676	54	64	83%
July 1, 2007 to June 30, 2008	20,636	55	66	84%
July 1, 2004 to June 30, 2008	**82,524**	**215**	**253**	**85%**
Females				
July 1, 2004 to June 30, 2005	24,319	48	54	88%
July 1, 2005 to June 30, 2006	24,353	63	57	111%
July 1, 2006 to June 30, 2007	24,909	42	60	70%
July 1, 2007 to June 30, 2008	25,239	63	61	102%
July 1, 2004 to June 30, 2008	**98,820**	**216**	**232**	**93%**

Discussion

The actual experience shows that the current assumption for males is predicting too many disabilities. We are recommending a change in this assumption to use 90% of the rates from the current table for males and no change to the current assumption for females.

Demographic Assumptions

Disability Assumptions

The following chart shows the exposures, actual retirements, expected retirements under the proposed assumption and actual to expected ratios for males and females for each of the years in the experience study for disability retirements.

Disability Retirement			Proposed Assumption	
	Exposures	Actual Retirements	Expected Retirements	A/E Ratio
Males				
July 1, 2004 to June 30, 2005	20,585	49	54	91%
July 1, 2005 to June 30, 2006	20,627	57	56	102%
July 1, 2006 to June 30, 2007	20,676	54	58	93%
July 1, 2007 to June 30, 2008	20,636	55	59	93%
July 1, 2004 to June 30, 2008	**82,524**	**215**	**227**	**95%**
Females				
July 1, 2004 to June 30, 2005	24,319	48	54	88%
July 1, 2005 to June 30, 2006	24,353	63	57	111%
July 1, 2006 to June 30, 2007	24,909	42	60	70%
July 1, 2007 to June 30, 2008	25,239	63	61	102%
July 1, 2004 to June 30, 2008	**98,820**	**216**	**232**	**93%**

Demographic Assumptions

Termination Assumptions

The termination assumptions used in the actuarial valuation include an assumption for termination from active status prior to retirement eligibility, since not all active members are expected to continue working until retirement. Termination rates represent the probabilities that a member at any given age will leave employment at that age. Current termination rates for members are developed by gender on an ultimate basis with a 3-year select period.

The following chart shows the exposures, actual terminations, expected terminations under the current assumption and actual to expected ratios for males and females for each of the years in the experience study during the three-year select period.

			Current (June 30, 2008) Assumption	
Service <3 Years	**Exposures**	**Actual Terminations**	**Expected Terminations**	**A/E Ratio**
Males				
July 1, 2004 to June 30, 2005	3,099	703	627	112%
July 1, 2005 to June 30, 2006	3,194	655	629	104%
July 1, 2006 to June 30, 2007	3,869	843	766	110%
July 1, 2007 to June 30, 2008	4,074	816	794	103%
July 1, 2004 to June 30, 2008	**14,236**	**3,017**	**2,816**	**107%**
Females				
July 1, 2004 to June 30, 2005	5,131	1,328	1,097	121%
July 1, 2005 to June 30, 2006	5,033	1,223	1,081	113%
July 1, 2006 to June 30, 2007	6,001	1,399	1,311	107%
July 1, 2007 to June 30, 2008	6,469	1,376	1,316	105%
July 1, 2004 to June 30, 2008	**22,634**	**5,326**	**4,805**	**111%**

Demographic Assumptions

Termination Assumptions

The following chart shows the exposures, actual terminations, expected terminations under the current assumption and actual to expected ratios for males and females for each of the years in the experience study during the ultimate period.

			Current (June 30, 2008) Assumption	
Service ≥3 Years	**Exposures**	**Actual Terminations**	**Expected Terminations**	**A/E Ratio**
Males				
July 1, 2004 to June 30, 2005	13,091	587	377	156%
July 1, 2005 to June 30, 2006	12,628	582	363	160%
July 1, 2006 to June 30, 2007	11,815	574	337	170%
July 1, 2007 to June 30, 2008	11,355	497	326	152%
July 1, 2004 to June 30, 2008	**48,889**	**2,240**	**1,403**	**160%**
Females				
July 1, 2004 to June 30, 2005	15,747	874	646	135%
July 1, 2005 to June 30, 2006	15,462	962	632	152%
July 1, 2006 to June 30, 2007	14,727	885	595	149%
July 1, 2007 to June 30, 2008	14,267	793	578	137%
July 1, 2004 to June 30, 2008	**60,203**	**3,514**	**2,451**	**143%**

Discussion

The actual experience shows that termination rates vary by age and also vary by service, but the variations by service extend well beyond the current three-year select period. We are recommending a change to age and service based tables for both males and females.

The following chart shows the exposures, actual terminations and expected terminations under the proposed assumption for males and females.

Demographic Assumptions

Termination Assumptions

			Proposed Assumption	
All ages and service	**Exposures**	**Actual Terminations**	**Expected Terminations**	**A/E Ratio**
Males				
July 1, 2004 to June 30, 2005	16,190	1,290	1,154	112%
July 1, 2005 to June 30, 2006	15,822	1,237	1,134	109%
July 1, 2006 to June 30, 2007	15,684	1,417	1,195	119%
July 1, 2007 to June 30, 2008	15,429	1,313	1,230	107%
July 1, 2004 to June 30, 2008	**63,125**	**5,257**	**4,713**	**112%**
Females				
July 1, 2004 to June 30, 2005	20,878	2,202	2,002	110%
July 1, 2005 to June 30, 2006	20,495	2,185	1,953	112%
July 1, 2006 to June 30, 2007	20,728	2,284	2,078	110%
July 1, 2007 to June 30, 2008	20,736	2,169	2,137	102%
July 1, 2004 to June 30, 2008	**82,837**	**8,840**	**8,170**	**108%**

The proposed rates are shown in the Appendix.

Appendix

Data

The experience analysis uses member data from July 1, 2004, through June 30, 2008, which was supplied by MSRS. We have not verified the data, but have reviewed the information for internal consistency and have no reason to doubt its substantial accuracy.

The member data was summarized according to the actual and potential member decrements for each year in the study. Actual and potential decrements were grouped according to age or service depending on the demographic assumption.

Appendix

Methods and Procedures

Actuarial Cost Method

Liabilities and contributions are computed using the Individual Entry Age Normal Cost Method. This method is prescribed by Minnesota Statutes.

The objective under this method is to fund each participants' benefits under the Plan as payments which are level as a percentage of salary, starting at original participation date (or employment date), and continuing until the assumed retirement termination, disability or death.

At the time the funding method is introduced, there will be a liability which represents the contributions which would have been accumulated if this method of funding had always been used. The difference between this liability and the assets (if any) which are held in the fund is the unfunded liability which is typically funded over a chosen period in accordance with the amortization schedule.

A detailed description of the calculation follows:

The normal costs for each active participant under the assumed retirement age is determined by applying to earnings the level percentage of salary which, if contributed each year from date of entry into the Plan until the assumed retirement (termination, disability or death) date, is sufficient to provide the full value of the benefits expected to be payable.

- The present value of future normal costs is the total of the discounted values of all active participants' normal cost, assuming these to be paid in each case from the valuation date until retirement (termination, disability or death) date.

- The present value of projected benefits is calculated as the value of all benefit payments expected to be paid to the Plan's current participants, including active and retired members, beneficiaries, and terminated members with vested rights.

- The accrued liability is the excess of the present value of projected benefits over the present value of future normal cost.

The unfunded liability is the excess of the accrued liability over the assets of the fund, and represents that part of the accrued liability which has not been funded by accumulated past contributions.

Appendix

Asset Valuation Method

The assets are valued based on a five-year moving average of expected and market values (five-year average actuarial value) determined as follows:

- At the end of each plan year, an average asset value is calculated as the average of the market asset value at the beginning and end of the fiscal year net of investment income for the fiscal year;
- The investment gain or (loss) is taken as the excess of actual investment income over the expected investment income based on the average asset value as calculated above;
- The investment gain or (loss) so determined is recognized over five years at 20% per year;
- The asset value is the sum of the expected asset value plus the scheduled recognition of investment gains or (losses) during the current and the preceding four plan years.

Payment on the Unfunded Actuarial Accrued Liability

A level percentage of payroll each year to the statutory amortization date of July 1, 2020 assuming payroll increases of 4.50% per annum. If there is a negative Unfunded Actuarial Accrued Liability, the surplus amount shall be amortized over 30 years as a level percentage of payroll.

Economic Assumptions

Inflation	3.00%
Real wage growth	1.50
Payroll growth	4.50
Investment Return	8.50
Salary Increases	Age Based Table

Appendix

Assumption Tables

	Healthy Preretirement Mortality				Healthy Postretirement Mortality				Disabled Mortality			
	Current Assumption		Proposed Assumption*		Current Assumption		Proposed Assumption*		Current Assumption		Proposed Assumption	
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	0.0325%	0.0168%	0.0259%	0.0178%	0.0353%	0.0179%	0.0231%	0.0178%	4.3910%	4.3910%	2.2571%	0.7450%
21	0.0333%	0.0179%	0.0266%	0.0178%	0.0365%	0.0189%	0.0241%	0.0177%	4.3920%	4.3920%	2.2571%	0.7450%
22	0.0343%	0.0189%	0.0273%	0.0177%	0.0377%	0.0201%	0.0249%	0.0179%	4.3930%	4.3930%	2.2571%	0.7450%
23	0.0353%	0.0201%	0.0285%	0.0179%	0.0392%	0.0212%	0.0259%	0.0183%	4.3940%	4.3940%	2.2571%	0.7450%
24	0.0365%	0.0212%	0.0290%	0.0183%	0.0408%	0.0225%	0.0266%	0.0189%	4.3950%	4.3950%	2.2571%	0.7450%
25	0.0377%	0.0225%	0.0299%	0.0189%	0.0424%	0.0238%	0.0273%	0.0196%	4.3960%	4.3960%	2.2571%	0.7450%
26	0.0392%	0.0238%	0.0313%	0.0196%	0.0444%	0.0253%	0.0285%	0.0206%	4.3970%	4.3970%	2.2571%	0.7450%
27	0.0408%	0.0253%	0.0337%	0.0206%	0.0464%	0.0268%	0.0290%	0.0215%	4.3980%	4.3980%	2.2571%	0.7450%
28	0.0424%	0.0268%	0.0371%	0.0215%	0.0488%	0.0283%	0.0299%	0.0227%	4.3990%	4.3990%	2.2571%	0.7450%
29	0.0444%	0.0283%	0.0412%	0.0227%	0.0513%	0.0301%	0.0313%	0.0239%	4.4000%	4.4000%	2.2571%	0.7450%
30	0.0464%	0.0301%	0.0460%	0.0239%	0.0542%	0.0320%	0.0337%	0.0259%	4.4010%	4.4010%	2.2571%	0.7450%
31	0.0488%	0.0320%	0.0511%	0.0259%	0.0572%	0.0342%	0.0371%	0.0302%	4.4020%	4.4020%	2.2571%	0.7450%
32	0.0513%	0.0342%	0.0565%	0.0302%	0.0607%	0.0364%	0.0412%	0.0338%	4.4030%	4.4030%	2.2571%	0.7450%
33	0.0542%	0.0364%	0.0621%	0.0338%	0.0645%	0.0388%	0.0460%	0.0370%	4.4040%	4.4040%	2.2571%	0.7450%
34	0.0572%	0.0388%	0.0676%	0.0370%	0.0687%	0.0414%	0.0511%	0.0397%	4.4050%	4.4050%	2.2571%	0.7450%
35	0.0607%	0.0414%	0.0726%	0.0397%	0.0734%	0.0443%	0.0565%	0.0422%	4.4060%	4.4060%	2.2571%	0.7450%
36	0.0645%	0.0443%	0.0776%	0.0422%	0.0785%	0.0476%	0.0621%	0.0446%	4.4070%	4.4070%	2.2571%	0.7450%
37	0.0687%	0.0476%	0.0828%	0.0446%	0.0860%	0.0502%	0.0676%	0.0469%	4.4080%	4.4080%	2.2571%	0.7450%
38	0.0734%	0.0502%	0.0883%	0.0469%	0.0907%	0.0535%	0.0726%	0.0495%	4.4090%	4.4090%	2.2571%	0.7450%
39	0.0785%	0.0535%	0.0946%	0.0495%	0.0966%	0.0573%	0.0776%	0.0523%	4.4100%	4.4100%	2.2571%	0.7450%
40	0.0860%	0.0573%	0.1017%	0.0523%	0.1039%	0.0617%	0.0828%	0.0563%	4.4120%	4.4120%	2.2571%	0.7450%
41	0.0907%	0.0617%	0.1099%	0.0563%	0.1128%	0.0665%	0.0883%	0.0610%	4.4140%	4.4140%	2.2571%	0.8184%
42	0.0966%	0.0665%	0.1193%	0.0610%	0.1238%	0.0716%	0.0946%	0.0666%	4.4160%	4.4160%	2.2571%	0.8959%
43	0.1039%	0.0716%	0.1284%	0.0666%	0.1370%	0.0775%	0.1017%	0.0730%	4.4280%	4.4280%	2.2571%	0.9775%
44	0.1128%	0.0775%	0.1382%	0.0730%	0.1527%	0.0841%	0.1099%	0.0805%	4.4490%	4.4490%	2.2571%	1.0634%
45	0.1238%	0.0841%	0.1480%	0.0805%	0.1715%	0.0919%	0.1193%	0.0879%	4.4810%	4.4810%	2.2571%	1.1535%
46	0.1370%	0.0919%	0.1580%	0.0879%	0.1932%	0.1010%	0.1284%	0.0959%	4.5260%	4.5260%	2.3847%	1.2477%
47	0.1527%	0.1010%	0.1679%	0.0959%	0.2183%	0.1117%	0.1382%	0.1044%	4.5820%	4.5820%	2.5124%	1.3456%
48	0.1715%	0.1117%	0.1777%	0.1044%	0.2471%	0.1237%	0.1480%	0.1141%	4.6560%	4.6560%	2.6404%	1.4465%
49	0.1932%	0.1237%	0.1876%	0.1141%	0.2790%	0.1366%	0.1580%	0.1243%	4.7480%	4.7480%	2.7687%	1.5497%

** Rates shown are recommended RP-2000 rates projected to 2008.*

	Healthy Preretirement Mortality				Healthy Postretirement Mortality				Disabled Mortality			
	Current Assumption		Proposed Assumption*		Current Assumption		Proposed Assumption*		Current Assumption		Proposed Assumption	
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
50	0.2183%	0.1366%	0.2000%	0.1243%	0.3138%	0.1505%	0.5081%	0.2097%	4.8640%	4.8640%	2.8975%	1.6544%
51	0.2471%	0.1505%	0.2136%	0.1362%	0.3513%	0.1647%	0.5014%	0.2188%	5.0080%	5.0080%	3.0268%	1.7598%
52	0.2790%	0.1647%	0.2312%	0.1487%	0.3909%	0.1793%	0.4889%	0.2362%	5.1780%	5.1780%	3.1563%	1.8654%
53	0.3138%	0.1793%	0.2529%	0.1641%	0.4324%	0.1948%	0.4766%	0.2600%	5.3840%	5.3840%	3.2859%	1.9710%
54	0.3513%	0.1948%	0.2783%	0.1808%	0.4755%	0.2119%	0.4635%	0.2894%	5.6140%	5.6140%	3.4152%	2.0768%
55	0.3909%	0.2119%	0.3066%	0.1997%	0.5200%	0.2315%	0.4571%	0.3245%	5.2163%	5.1617%	3.5442%	2.1839%
56	0.4324%	0.2315%	0.3359%	0.2209%	0.5660%	0.2541%	0.4592%	0.3647%	4.8186%	4.7094%	3.6732%	2.2936%
57	0.4755%	0.2541%	0.3687%	0.2454%	0.6131%	0.2803%	0.4694%	0.4066%	4.4208%	4.2570%	3.8026%	2.4080%
58	0.5200%	0.2803%	0.4087%	0.2707%	0.6618%	0.3103%	0.4920%	0.4478%	4.0231%	3.8047%	3.9334%	2.5293%
59	0.5660%	0.3103%	0.4489%	0.2970%	0.7139%	0.3442%	0.5237%	0.4912%	3.6254%	3.3524%	4.0668%	2.6600%
60	0.6131%	0.3442%	0.4965%	0.3265%	0.7719%	0.3821%	0.5713%	0.5369%	3.2277%	2.9001%	4.2042%	2.8026%
61	0.6618%	0.3821%	0.5429%	0.3589%	0.8384%	0.4241%	0.6387%	0.5873%	2.8300%	2.4478%	4.3474%	2.9594%
62	0.7139%	0.4241%	0.5923%	0.3949%	0.9158%	0.4702%	0.7157%	0.6438%	2.4323%	1.9955%	4.4981%	3.1325%
63	0.7719%	0.4702%	0.6494%	0.4339%	1.0064%	0.5210%	0.8132%	0.7093%	2.0345%	1.5431%	4.6584%	3.3234%
64	0.8384%	0.5210%	0.7024%	0.4759%	1.1133%	0.5769%	0.9147%	0.7849%	1.6386%	1.0908%	4.8307%	3.5335%
65	0.9158%	0.5769%	0.7509%	0.5205%	1.2391%	0.6385%	1.0248%	0.8708%	1.2391%	0.6385%	5.0174%	3.7635%
66	1.0064%	0.6385%	0.8075%	0.5681%	1.3868%	0.7064%	1.1525%	0.9666%	1.3868%	0.7064%	5.2213%	4.0140%
67	1.1133%	0.7064%	0.8574%	0.6182%	1.5592%	0.7817%	1.2759%	1.0716%	1.5592%	0.7817%	5.4450%	4.2851%
68	1.2391%	0.7817%	1.8679%	0.6708%	1.7579%	0.8681%	1.3947%	1.1847%	1.7579%	0.8681%	5.6909%	4.5769%
69	1.3868%	0.8681%	2.0835%	0.7256%	1.9804%	0.9702%	1.5354%	1.3109%	1.9804%	0.9702%	5.9613%	4.8895%
70	1.5592%	0.9702%	2.3313%	0.7824%	2.2229%	1.0921%	1.6823%	1.4515%	2.2229%	1.0921%	6.2583%	5.2230%
71	1.7579%	1.0921%	2.6156%	0.8412%	2.4817%	1.2385%	1.8679%	1.5980%	2.4817%	1.2385%	6.5841%	5.5777%
72	1.9804%	1.2385%	2.9626%	1.5980%	2.7530%	1.4128%	2.0835%	1.7794%	2.7530%	1.4128%	6.9405%	5.9545%
73	2.2229%	1.4128%	3.3281%	1.7794%	3.0354%	1.6159%	2.3313%	1.9622%	3.0354%	1.6159%	7.3292%	6.3545%
74	2.4817%	1.6159%	3.7650%	1.9622%	3.3370%	1.8481%	2.6156%	2.1795%	3.3370%	1.8481%	7.7512%	6.7793%
75	2.7530%	1.8481%	4.2595%	2.1795%	3.6680%	2.1091%	2.9626%	2.3924%	3.6680%	2.1091%	8.2067%	7.2312%
76	3.0354%	2.1091%	4.8138%	2.3924%	4.0388%	2.3992%	3.3281%	2.6502%	4.0388%	2.3992%	8.6951%	7.7135%
77	3.3370%	2.3992%	5.4274%	2.6502%	4.4597%	2.7184%	3.7650%	2.9614%	4.4597%	2.7184%	9.2149%	8.2298%
78	3.6680%	2.7184%	6.1563%	2.9614%	4.9388%	3.0672%	4.2595%	3.2821%	4.9388%	3.0672%	9.7640%	8.7838%
79	4.0388%	3.0672%	6.9707%	3.2821%	5.4758%	3.4459%	4.8138%	3.6392%	5.4758%	3.4459%	10.3392%	9.3794%
80	4.4597%	3.4459%	7.8120%	3.6392%	6.0678%	3.8549%	5.4274%	4.0441%	6.0678%	3.8549%	10.9372%	10.0203%
81	4.9388%	3.8549%	8.8046%	4.0441%	6.7125%	4.2945%	6.1563%	4.5000%	6.7125%	4.2945%	11.5544%	10.7099%
82	5.4758%	4.2945%	9.8253%	4.5000%	7.4070%	4.7655%	6.9707%	5.0097%	7.4070%	4.7655%	12.1877%	11.4512%

** Rates shown are recommended RP-2000 rates projected to 2008.*

	Healthy Preretirement Mortality				Healthy Postretirement Mortality				Disabled Mortality			
	Current Assumption		Proposed Assumption*		Current Assumption		Proposed Assumption*		Current Assumption		Proposed Assumption	
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
83	6.0678%	4.7655%	10.9625%	5.0097%	8.1484%	5.2691%	7.8120%	5.5860%	8.1484%	5.2691%	12.8343%	12.2464%
84	6.7125%	5.2691%	12.3329%	5.5860%	8.9320%	5.8071%	8.8046%	6.2321%	8.9320%	5.8071%	13.4923%	13.0972%
85	7.4070%	5.8071%	13.8477%	6.2321%	9.7525%	6.3807%	9.8253%	7.0282%	9.7525%	6.3807%	14.1603%	14.0049%
86	8.1484%	6.3807%	15.3989%	7.0282%	10.6047%	6.9918%	10.9625%	7.9181%	10.6047%	6.9918%	14.8374%	14.9698%
87	8.9320%	6.9918%	17.1956%	7.9181%	11.4836%	7.6570%	12.3329%	8.9207%	11.4836%	7.6570%	15.5235%	15.9924%
88	9.7525%	7.6570%	18.8067%	8.9207%	12.4170%	8.3870%	13.8477%	9.9361%	12.4170%	8.3870%	16.2186%	17.0433%
89	10.6047%	8.3870%	20.6399%	9.9361%	13.3870%	9.1935%	15.3989%	11.1220%	13.3870%	9.1935%	16.9233%	18.2799%
90	11.4836%	9.1935%	22.3335%	11.1220%	14.4073%	10.1354%	17.1956%	12.2786%	14.4073%	10.1354%	18.3408%	19.4509%
91	12.4170%	10.1354%	23.9857%	12.2786%	15.4859%	11.1750%	18.8067%	13.4835%	15.4859%	11.1750%	19.9769%	20.5379%
92	13.3870%	11.1750%	25.8511%	13.4835%	16.6307%	12.3076%	20.6399%	14.6970%	16.6307%	12.3076%	21.6605%	21.5240%
93	14.4073%	12.3076%	27.8835%	14.6970%	17.8214%	13.5630%	22.3335%	16.0527%	17.8214%	13.5630%	23.3662%	22.3947%
94	15.4859%	13.5630%	29.4498%	16.0527%	19.0460%	14.9577%	23.9857%	17.2353%	19.0460%	14.9577%	25.0693%	23.1387%
95	16.6307%	14.9577%	31.2470%	17.2353%	20.3007%	16.5103%	25.8511%	18.3585%	20.3007%	16.5103%	26.7491%	23.7467%
96	17.8214%	16.5103%	32.7247%	18.3585%	21.7904%	18.2419%	27.8835%	20.1712%	21.7904%	18.2419%	28.3905%	24.4834%
97	19.0460%	18.2419%	34.1467%	20.1712%	23.4086%	20.1757%	29.4498%	21.3311%	23.4086%	20.1757%	29.9852%	25.4498%
98	20.3007%	20.1757%	35.8628%	21.3311%	24.8436%	22.2043%	31.2470%	22.1940%	24.8436%	22.2043%	31.5296%	26.6044%
99	21.7904%	22.2043%	37.1685%	22.1940%	26.3954%	24.3899%	32.7247%	22.9313%	26.3954%	24.3899%	33.0207%	27.9055%
100	23.4086%	24.3899%	38.3040%	22.9313%	28.0803%	26.8185%	34.1467%	23.5338%	28.0803%	26.8185%	34.4556%	29.3116%

** Rates shown are recommended RP-2000 rates projected to 2008.*

Age	Current Assumption \Male	Proposed Termination Assumption – Males Years Of Service															
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
20	6.90%	41.91%	32.59%	30.98%	26.10%	20.48%	16.01%	13.18%	11.99%	9.73%	9.21%	8.15%	7.68%	6.86%	6.86%	6.86%	6.53%
21	6.70%	38.94%	31.94%	29.57%	22.48%	15.92%	13.22%	11.19%	9.73%	8.63%	8.15%	7.55%	7.20%	6.86%	6.86%	6.61%	6.53%
22	6.50%	36.33%	30.99%	28.16%	19.81%	13.02%	11.52%	9.75%	8.16%	7.91%	7.40%	7.14%	6.91%	6.86%	6.62%	6.33%	6.33%
23	6.30%	34.08%	29.85%	26.77%	17.90%	11.42%	10.65%	8.75%	7.15%	7.15%	6.88%	6.88%	6.74%	6.74%	6.45%	6.22%	6.22%
24	6.10%	32.17%	28.58%	25.44%	16.58%	10.77%	10.36%	8.10%	6.58%	6.58%	6.55%	6.55%	6.55%	6.55%	6.33%	6.21%	6.21%
25	5.90%	30.60%	27.27%	24.19%	15.72%	10.77%	10.36%	7.73%	6.34%	6.34%	6.34%	6.34%	6.34%	6.34%	6.25%	6.21%	6.21%
26	5.70%	29.34%	25.95%	23.01%	15.19%	10.77%	10.36%	7.56%	6.34%	6.34%	6.24%	6.24%	6.24%	6.24%	6.20%	6.20%	6.19%
27	5.50%	28.38%	24.68%	21.94%	14.89%	10.77%	10.36%	7.55%	6.34%	6.34%	6.18%	6.18%	6.18%	6.18%	6.17%	6.17%	6.06%
28	5.30%	27.68%	23.49%	20.95%	14.73%	10.77%	10.36%	7.55%	6.34%	6.34%	6.14%	6.14%	6.14%	6.04%	6.04%	6.04%	5.91%
29	5.10%	27.23%	22.39%	20.07%	14.65%	10.77%	10.36%	7.55%	6.34%	6.34%	6.11%	6.11%	6.11%	5.87%	5.87%	5.87%	5.75%
30	4.90%	26.99%	21.42%	19.28%	14.58%	10.77%	10.36%	7.55%	6.34%	6.34%	6.06%	6.06%	6.03%	5.73%	5.73%	5.73%	5.59%
31	4.70%	26.93%	20.57%	18.57%	14.49%	10.77%	10.36%	7.55%	6.34%	6.34%	5.99%	5.99%	5.80%	5.62%	5.62%	5.62%	5.43%
32	4.50%	26.93%	19.84%	17.95%	14.34%	10.77%	10.36%	7.55%	6.34%	6.34%	5.90%	5.90%	5.52%	5.52%	5.52%	5.52%	5.26%
33	4.30%	26.93%	19.24%	17.38%	14.13%	10.77%	10.36%	7.55%	6.34%	6.07%	5.77%	5.68%	5.22%	5.22%	5.22%	5.22%	5.08%
34	4.10%	26.93%	18.74%	16.87%	13.83%	10.77%	10.36%	7.55%	6.34%	5.73%	5.62%	5.41%	4.89%	4.89%	4.89%	4.89%	4.89%
35	3.90%	26.93%	18.35%	16.40%	13.45%	10.77%	9.90%	7.55%	6.34%	5.36%	5.36%	5.13%	4.56%	4.56%	4.56%	4.53%	4.53%
36	3.70%	26.93%	18.03%	15.96%	12.99%	10.77%	9.12%	7.55%	6.34%	4.97%	4.97%	4.83%	4.24%	4.24%	4.24%	4.10%	4.10%
37	3.50%	26.93%	17.77%	15.53%	12.47%	10.77%	8.31%	7.55%	6.34%	4.58%	4.58%	4.52%	3.94%	3.94%	3.94%	3.68%	3.68%
38	3.40%	26.93%	17.56%	15.10%	11.90%	10.45%	7.50%	7.25%	6.34%	4.21%	4.21%	4.21%	3.68%	3.68%	3.68%	3.28%	3.28%
39	3.30%	26.93%	17.36%	14.66%	11.30%	9.36%	6.76%	6.76%	6.34%	3.86%	3.86%	3.86%	3.48%	3.48%	3.48%	2.92%	2.92%
40	3.20%	26.93%	17.15%	14.20%	10.69%	8.28%	6.11%	6.11%	6.11%	3.56%	3.56%	3.56%	3.34%	3.34%	3.34%	2.62%	2.62%
41	3.10%	26.93%	16.92%	13.71%	10.10%	7.28%	5.61%	5.61%	5.61%	3.32%	3.32%	3.32%	3.29%	3.29%	3.29%	2.38%	2.38%
42	3.00%	26.93%	16.64%	13.19%	9.53%	6.40%	5.28%	5.28%	5.28%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	2.23%	2.23%
43	2.90%	26.93%	16.31%	12.63%	9.02%	5.69%	5.14%	4.87%	4.87%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	2.17%	2.17%
44	2.80%	26.93%	15.90%	12.05%	8.57%	5.17%	5.14%	4.38%	4.38%	3.01%	3.01%	3.01%	3.01%	3.01%	3.01%	2.17%	2.17%
45	2.70%	26.93%	15.40%	11.44%	8.20%	4.86%	4.86%	3.94%	3.94%	3.01%	3.01%	3.01%	3.01%	3.01%	3.01%	2.17%	2.17%
46	2.60%	26.93%	14.83%	10.82%	7.90%	4.75%	4.75%	3.55%	3.55%	3.01%	3.01%	3.01%	3.01%	3.01%	3.01%	2.17%	2.17%
47	2.50%	26.93%	14.17%	10.21%	7.68%	4.75%	4.75%	3.26%	3.26%	3.01%	3.01%	3.01%	3.01%	3.01%	3.01%	2.17%	2.17%
48	2.40%	26.93%	13.43%	9.62%	7.51%	4.75%	4.75%	3.07%	3.07%	3.01%	3.01%	3.01%	3.01%	3.01%	3.01%	2.17%	2.17%
49	2.30%	26.93%	12.65%	9.10%	7.38%	4.75%	4.75%	3.02%	3.02%	3.01%	3.01%	3.01%	3.01%	2.91%	2.91%	2.17%	2.17%
50	2.20%	26.93%	11.83%	8.68%	7.25%	4.75%	4.75%	3.02%	3.02%	3.01%	3.01%	3.01%	3.01%	2.84%	2.84%	2.17%	2.17%
51	2.10%	26.93%	11.03%	8.40%	7.08%	4.75%	4.75%	3.02%	3.02%	3.01%	3.01%	3.01%	3.01%	2.84%	2.74%	2.17%	2.17%
52	2.00%	26.93%	10.28%	8.32%	6.79%	4.75%	4.75%	3.02%	3.02%	2.76%	2.76%	2.76%	2.76%	2.76%	2.28%	2.17%	2.17%
53	1.90%	26.93%	9.65%	8.32%	6.32%	4.28%	4.28%	3.02%	3.02%	1.99%	1.99%	1.99%	1.99%	1.99%	1.72%	1.72%	1.72%
54	1.80%	26.93%	9.20%	8.32%	5.57%	2.51%	2.27%	2.27%	2.27%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%
55+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Age	Current Assumption \Male	Proposed Termination Assumption – Males Years of Service														
		16	17	18	19	20	21	22	23	24	25	26	27	28	29	30+
20	6.90%	6.53%	6.53%	6.53%	6.31%	5.86%	5.86%	5.86%	5.67%	5.42%	5.42%	5.40%	5.12%	4.99%	4.81%	4.81%
21	6.70%	6.43%	6.32%	6.26%	6.16%	5.86%	5.86%	5.86%	5.67%	5.42%	5.42%	5.40%	5.12%	4.99%	4.81%	4.68%
22	6.50%	6.22%	6.09%	6.08%	6.06%	5.86%	5.86%	5.82%	5.67%	5.42%	5.42%	5.31%	5.12%	4.99%	4.81%	4.48%
23	6.30%	6.12%	5.98%	5.98%	5.98%	5.86%	5.85%	5.71%	5.67%	5.42%	5.30%	5.14%	5.06%	4.84%	4.66%	4.28%
24	6.10%	6.07%	5.94%	5.91%	5.90%	5.86%	5.73%	5.58%	5.53%	5.42%	5.10%	4.93%	4.83%	4.63%	4.45%	4.10%
25	5.90%	6.06%	5.94%	5.87%	5.83%	5.83%	5.60%	5.43%	5.31%	5.20%	4.87%	4.69%	4.56%	4.40%	4.22%	3.93%
26	5.70%	6.05%	5.94%	5.82%	5.74%	5.60%	5.44%	5.26%	5.06%	4.91%	4.64%	4.45%	4.28%	4.15%	3.97%	3.78%
27	5.50%	6.04%	5.94%	5.77%	5.63%	5.36%	5.26%	5.08%	4.80%	4.60%	4.41%	4.22%	4.02%	3.91%	3.74%	3.64%
28	5.30%	5.91%	5.91%	5.69%	5.51%	5.12%	5.08%	4.88%	4.56%	4.31%	4.20%	4.01%	3.78%	3.68%	3.52%	3.51%
29	5.10%	5.75%	5.75%	5.59%	5.35%	4.89%	4.88%	4.68%	4.34%	4.04%	4.00%	3.81%	3.58%	3.48%	3.34%	3.34%
30	4.90%	5.59%	5.59%	5.45%	5.17%	4.68%	4.67%	4.48%	4.13%	3.81%	3.81%	3.65%	3.42%	3.32%	3.20%	3.20%
31	4.70%	5.43%	5.43%	5.28%	4.97%	4.49%	4.47%	4.28%	3.96%	3.63%	3.63%	3.52%	3.30%	3.19%	3.10%	3.10%
32	4.50%	5.26%	5.26%	5.07%	4.74%	4.33%	4.26%	4.08%	3.81%	3.49%	3.49%	3.41%	3.23%	3.10%	3.03%	3.03%
33	4.30%	5.08%	5.03%	4.84%	4.50%	4.18%	4.05%	3.88%	3.68%	3.39%	3.39%	3.33%	3.19%	3.04%	3.01%	3.01%
34	4.10%	4.89%	4.73%	4.57%	4.25%	4.06%	3.86%	3.69%	3.56%	3.34%	3.34%	3.27%	3.18%	3.02%	3.01%	3.01%
35	3.90%	4.53%	4.39%	4.29%	3.99%	3.95%	3.67%	3.51%	3.46%	3.32%	3.29%	3.23%	3.18%	3.02%	3.01%	3.01%
36	3.70%	4.10%	4.05%	3.99%	3.72%	3.72%	3.49%	3.33%	3.33%	3.32%	3.24%	3.19%	3.18%	3.02%	3.01%	3.01%
37	3.50%	3.68%	3.68%	3.68%	3.47%	3.47%	3.33%	3.17%	3.17%	3.17%	3.17%	3.17%	3.17%	3.02%	3.01%	3.01%
38	3.40%	3.28%	3.28%	3.28%	3.22%	3.22%	3.18%	3.03%	3.03%	3.03%	3.03%	3.03%	3.03%	3.02%	3.01%	3.01%
39	3.30%	2.92%	2.92%	2.92%	2.92%	2.92%	2.92%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%
40	3.20%	2.62%	2.62%	2.62%	2.62%	2.62%	2.62%	2.62%	2.62%	2.62%	2.62%	2.62%	2.62%	2.62%	2.62%	2.62%
41	3.10%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%
42	3.00%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%
43	2.90%	2.17%	2.17%	2.14%	2.14%	2.14%	2.14%	2.14%	2.14%	2.14%	2.14%	2.14%	2.14%	2.14%	2.14%	2.14%
44	2.80%	2.17%	2.12%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%
45	2.70%	2.10%	2.09%	1.88%	1.88%	1.88%	1.88%	1.88%	1.88%	1.88%	1.88%	1.88%	1.88%	1.88%	1.88%	1.88%
46	2.60%	2.09%	2.09%	1.81%	1.81%	1.81%	1.81%	1.81%	1.76%	1.76%	1.76%	1.76%	1.76%	1.76%	1.76%	1.76%
47	2.50%	2.09%	2.09%	1.78%	1.78%	1.78%	1.78%	1.78%	1.60%	1.60%	1.60%	1.60%	1.60%	1.60%	1.60%	1.60%
48	2.40%	2.09%	2.09%	1.78%	1.78%	1.68%	1.68%	1.68%	1.51%	1.51%	1.51%	1.51%	1.36%	1.36%	1.36%	1.36%
49	2.30%	2.09%	2.09%	1.78%	1.78%	1.54%	1.54%	1.54%	1.50%	1.50%	1.50%	1.50%	1.16%	1.16%	1.16%	1.16%
50	2.20%	2.09%	2.09%	1.78%	1.78%	1.48%	1.48%	1.48%	1.48%	1.48%	1.48%	1.48%	1.06%	1.06%	1.06%	1.06%
51	2.10%	2.09%	2.09%	1.78%	1.78%	1.48%	1.48%	1.48%	1.48%	1.48%	1.48%	1.48%	1.06%	1.06%	1.06%	1.06%
52	2.00%	2.09%	2.03%	1.78%	1.78%	1.48%	1.48%	1.48%	1.48%	1.48%	1.48%	1.48%	1.06%	1.06%	1.06%	1.06%
53	1.90%	1.72%	1.65%	1.65%	1.65%	1.48%	1.48%	1.48%	1.48%	1.48%	1.48%	1.48%	1.06%	0.77%	0.77%	0.77%
54	1.80%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.45%	0.45%	0.45%
55+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Age	Current Assumption Females	Proposed Termination Assumption – Females Years of Service															
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
20	8.55%	49.29%	28.72%	22.37%	19.66%	19.66%	19.55%	19.35%	18.38%	16.17%	14.62%	13.35%	11.78%	10.10%	8.35%	8.35%	7.21%
21	8.40%	44.73%	28.72%	22.37%	19.66%	18.49%	17.67%	16.47%	15.16%	13.79%	12.61%	11.04%	9.81%	8.75%	8.07%	7.51%	7.13%
22	8.25%	41.20%	28.72%	22.37%	19.66%	17.60%	16.36%	14.47%	12.81%	11.91%	10.86%	9.32%	8.40%	7.83%	7.77%	6.96%	6.96%
23	8.10%	38.52%	28.72%	22.37%	19.66%	16.96%	15.49%	13.16%	11.17%	10.45%	9.36%	8.09%	7.44%	7.23%	7.23%	6.64%	6.64%
24	7.95%	36.51%	28.72%	22.37%	19.66%	16.50%	14.93%	12.36%	10.06%	9.35%	8.11%	7.25%	6.83%	6.83%	6.83%	6.48%	6.48%
25	7.80%	35.03%	28.72%	22.37%	19.66%	16.17%	14.59%	11.94%	9.36%	8.54%	7.10%	6.73%	6.48%	6.48%	6.48%	6.42%	6.42%
26	7.65%	33.94%	28.39%	22.37%	19.66%	15.91%	14.38%	11.76%	8.96%	7.98%	6.31%	6.31%	6.31%	6.31%	6.31%	6.31%	6.31%
27	7.50%	33.15%	27.64%	22.37%	19.66%	15.69%	14.22%	11.73%	8.76%	7.60%	5.72%	5.72%	5.72%	5.72%	5.72%	5.72%	5.72%
28	7.35%	32.56%	26.81%	22.37%	19.66%	15.47%	14.08%	11.73%	8.67%	7.37%	5.31%	5.31%	5.31%	5.31%	5.31%	5.31%	5.31%
29	7.20%	32.10%	25.95%	22.37%	19.66%	15.23%	13.90%	11.73%	8.64%	7.24%	5.07%	5.07%	5.07%	5.07%	5.07%	5.07%	5.07%
30	7.05%	31.73%	25.08%	21.71%	19.29%	14.95%	13.66%	11.73%	8.63%	7.19%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%
31	6.90%	31.40%	24.23%	20.98%	18.75%	14.62%	13.35%	11.69%	8.58%	7.18%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%
32	6.75%	31.08%	23.41%	20.21%	18.13%	14.25%	12.95%	11.50%	8.48%	7.18%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%
33	6.60%	30.76%	22.63%	19.42%	17.46%	13.81%	12.46%	11.19%	8.32%	7.18%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%
34	6.45%	30.44%	21.89%	18.62%	16.73%	13.32%	11.90%	10.78%	8.09%	7.18%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.84%
35	5.10%	30.10%	21.21%	17.84%	15.97%	12.79%	11.28%	10.27%	7.80%	7.16%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.58%
36	4.93%	29.77%	20.58%	17.08%	15.18%	12.23%	10.61%	9.69%	7.45%	7.09%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.33%
37	4.75%	29.45%	20.00%	16.34%	14.39%	11.63%	9.91%	9.04%	7.06%	6.97%	4.96%	4.96%	4.96%	4.67%	4.67%	4.67%	4.08%
38	4.63%	29.16%	19.47%	15.65%	13.61%	11.03%	9.21%	8.37%	6.65%	6.65%	4.96%	4.96%	4.96%	4.33%	4.33%	4.33%	3.83%
39	4.50%	28.92%	18.98%	15.00%	12.86%	10.43%	8.54%	7.70%	6.23%	6.23%	4.96%	4.96%	4.96%	4.01%	4.01%	4.01%	3.59%
40	4.38%	28.76%	18.52%	14.41%	12.14%	9.84%	7.91%	7.05%	5.83%	5.83%	4.96%	4.96%	4.96%	3.73%	3.73%	3.73%	3.37%
41	4.25%	28.68%	18.10%	13.88%	11.48%	9.29%	7.34%	6.46%	5.47%	5.47%	4.96%	4.96%	4.96%	3.49%	3.49%	3.49%	3.16%
42	4.13%	28.68%	17.71%	13.40%	10.88%	8.77%	6.86%	5.95%	5.16%	5.16%	4.96%	4.96%	4.86%	3.31%	3.31%	3.31%	2.97%
43	4.00%	28.68%	17.34%	12.99%	10.36%	8.30%	6.48%	5.54%	4.91%	4.91%	4.91%	4.91%	4.63%	3.20%	3.20%	3.20%	2.81%
44	3.88%	28.68%	16.99%	12.63%	9.94%	7.89%	6.20%	5.25%	4.74%	4.74%	4.74%	4.74%	4.42%	3.17%	3.17%	3.17%	2.68%
45	3.75%	28.68%	16.67%	12.34%	9.60%	7.55%	6.03%	5.08%	4.65%	4.65%	4.65%	4.65%	4.24%	3.17%	3.17%	3.17%	2.58%
46	3.63%	28.68%	16.37%	12.11%	9.38%	7.26%	5.96%	5.05%	4.64%	4.64%	4.64%	4.53%	4.08%	3.17%	3.17%	3.17%	2.51%
47	3.50%	28.68%	16.11%	11.92%	9.26%	7.03%	5.96%	5.05%	4.64%	4.64%	4.54%	4.40%	3.94%	3.17%	3.17%	3.17%	2.49%
48	3.35%	28.68%	15.90%	11.79%	9.25%	6.85%	5.96%	5.05%	4.64%	4.64%	4.24%	4.24%	3.81%	3.17%	3.17%	3.17%	2.49%
49	3.20%	28.68%	15.75%	11.69%	9.25%	6.70%	5.96%	5.05%	4.64%	4.64%	4.04%	4.04%	3.67%	3.17%	3.17%	3.17%	2.49%
50	3.05%	28.68%	15.69%	11.63%	9.25%	6.55%	5.96%	5.05%	4.64%	4.64%	3.97%	3.97%	3.48%	3.17%	3.17%	3.17%	2.49%
51	2.90%	28.68%	15.69%	11.59%	9.25%	6.38%	5.96%	5.05%	4.64%	4.64%	3.97%	3.97%	3.22%	3.17%	2.96%	2.96%	2.49%
52	2.75%	28.68%	15.69%	11.56%	9.25%	6.15%	5.84%	5.05%	4.56%	4.56%	3.97%	3.97%	2.83%	2.83%	2.74%	2.74%	2.49%
53	2.60%	28.68%	15.69%	11.53%	9.25%	5.81%	5.31%	5.05%	4.02%	4.02%	3.97%	3.97%	2.27%	2.27%	2.27%	2.27%	2.27%
54	2.45%	28.68%	15.69%	11.49%	9.25%	5.31%	4.37%	4.37%	3.07%	3.07%	3.07%	3.07%	1.46%	1.46%	1.46%	1.46%	1.46%
55+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Age	Current Assumption Females	Proposed Termination Assumption – Females Years of Service														
		16	17	18	19	20	21	22	23	24	25	26	27	28	29	30+
20	8.55%	6.75%	6.41%	6.41%	6.41%	6.38%	6.38%	6.19%	6.19%	6.08%	5.77%	5.77%	5.74%	5.32%	5.09%	4.82%
21	8.40%	6.75%	6.41%	6.41%	6.41%	6.38%	6.36%	6.19%	6.03%	5.86%	5.60%	5.32%	5.02%	4.72%	4.43%	4.16%
22	8.25%	6.75%	6.41%	6.41%	6.41%	6.38%	6.24%	6.14%	5.66%	5.57%	5.33%	4.89%	4.49%	4.26%	3.97%	3.73%
23	8.10%	6.64%	6.41%	6.41%	6.41%	6.32%	6.06%	5.93%	5.35%	5.25%	5.02%	4.52%	4.09%	3.93%	3.66%	3.46%
24	7.95%	6.48%	6.41%	6.41%	6.33%	6.14%	5.84%	5.65%	5.08%	4.91%	4.68%	4.20%	3.81%	3.69%	3.47%	3.32%
25	7.80%	6.42%	6.41%	6.39%	6.15%	5.91%	5.58%	5.32%	4.83%	4.58%	4.35%	3.94%	3.63%	3.53%	3.37%	3.27%
26	7.65%	6.31%	6.31%	6.15%	5.93%	5.64%	5.30%	4.97%	4.61%	4.27%	4.04%	3.73%	3.51%	3.42%	3.32%	3.27%
27	7.50%	5.72%	5.72%	5.72%	5.67%	5.34%	5.00%	4.62%	4.40%	3.99%	3.75%	3.57%	3.45%	3.37%	3.32%	3.27%
28	7.35%	5.31%	5.31%	5.31%	5.31%	5.02%	4.70%	4.28%	4.19%	3.74%	3.51%	3.45%	3.42%	3.34%	3.32%	3.27%
29	7.20%	5.07%	5.07%	5.07%	5.05%	4.69%	4.40%	3.97%	3.97%	3.54%	3.32%	3.32%	3.32%	3.32%	3.32%	3.27%
30	7.05%	4.96%	4.96%	4.93%	4.71%	4.37%	4.10%	3.69%	3.69%	3.38%	3.18%	3.18%	3.18%	3.18%	3.18%	3.18%
31	6.90%	4.96%	4.82%	4.61%	4.36%	4.05%	3.81%	3.46%	3.46%	3.27%	3.09%	3.09%	3.09%	3.09%	3.09%	3.09%
32	6.75%	4.84%	4.54%	4.30%	4.02%	3.75%	3.54%	3.27%	3.27%	3.19%	3.05%	3.05%	3.05%	3.05%	3.05%	3.05%
33	6.60%	4.50%	4.29%	4.01%	3.70%	3.46%	3.29%	3.12%	3.12%	3.12%	3.05%	3.05%	3.05%	3.05%	3.05%	3.05%
34	6.45%	4.17%	4.06%	3.75%	3.40%	3.19%	3.07%	3.02%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
35	5.10%	3.87%	3.87%	3.51%	3.14%	2.94%	2.86%	2.86%	2.82%	2.82%	2.82%	2.82%	2.82%	2.82%	2.82%	2.82%
36	4.93%	3.58%	3.58%	3.30%	2.92%	2.72%	2.68%	2.68%	2.66%	2.66%	2.66%	2.66%	2.66%	2.66%	2.66%	2.66%
37	4.75%	3.34%	3.34%	3.13%	2.75%	2.53%	2.53%	2.53%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%
38	4.63%	3.13%	3.13%	2.99%	2.64%	2.37%	2.37%	2.37%	2.37%	2.37%	2.37%	2.37%	2.37%	2.37%	2.37%	2.37%
39	4.50%	2.97%	2.97%	2.89%	2.59%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%
40	4.38%	2.86%	2.86%	2.82%	2.59%	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%
41	4.25%	2.80%	2.80%	2.78%	2.59%	2.05%	2.05%	2.05%	2.05%	2.05%	2.05%	2.05%	2.05%	2.05%	2.05%	2.05%
42	4.13%	2.78%	2.78%	2.77%	2.59%	2.01%	2.01%	2.01%	2.01%	2.01%	2.01%	2.01%	2.01%	2.01%	2.01%	1.98%
43	4.00%	2.78%	2.78%	2.77%	2.59%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.93%	1.92%
44	3.88%	2.68%	2.68%	2.68%	2.59%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.88%	1.88%	1.85%	1.85%
45	3.75%	2.58%	2.58%	2.58%	2.58%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.71%	1.71%	1.71%	1.71%
46	3.63%	2.51%	2.51%	2.51%	2.51%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.56%	1.56%	1.56%	1.56%
47	3.50%	2.49%	2.49%	2.49%	2.49%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.94%	1.43%	1.43%	1.43%	1.43%
48	3.35%	2.49%	2.49%	2.49%	2.49%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.84%	1.33%	1.33%	1.33%	1.33%
49	3.20%	2.49%	2.49%	2.49%	2.49%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.79%	1.28%	1.28%	1.28%	1.28%
50	3.05%	2.49%	2.49%	2.49%	2.49%	1.99%	1.99%	1.99%	1.99%	1.99%	1.99%	1.79%	1.27%	1.27%	1.27%	1.27%
51	2.90%	2.49%	2.49%	2.49%	2.49%	1.99%	1.99%	1.99%	1.99%	1.99%	1.96%	1.79%	1.27%	1.27%	1.27%	1.27%
52	2.75%	2.17%	2.17%	2.17%	2.17%	1.99%	1.99%	1.99%	1.99%	1.99%	1.86%	1.79%	1.27%	1.27%	1.27%	1.27%
53	2.60%	1.46%	1.46%	1.46%	1.46%	1.46%	1.46%	1.46%	1.46%	1.46%	1.46%	1.46%	1.27%	1.27%	1.27%	1.27%
54	2.45%	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%
55+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Appendix

Retirement Rates

	Current Assumption		Proposed Assumption	
Age	**Rule of 90**	**Non-Rule of 90**	**Rule of 90**	**Non-Rule of 90**
55	25.0%	5.0%	15.0%	5.0%
56	20.0%	5.0%	12.5%	5.0%
57	20.0%	5.0%	12.5%	5.0%
58	20.0%	5.0%	12.5%	5.0%
59	20.0%	5.0%	18.0%	6.0%
60	20.0%	10.0%	18.0%	7.0%
61	25.0%	10.0%	20.0%	12.0%
62	50.0%	25.0%	30.0%	18.0%
63	40.0%	20.0%	20.0%	16.0%
64	40.0%	20.0%	20.0%	18.0%
65	45.0%	45.0%	30.0%	30.0%
66	30.0%	30.0%	30.0%	30.0%
67	30.0%	30.0%	20.0%	20.0%
68	30.0%	30.0%	20.0%	20.0%
69	30.0%	30.0%	20.0%	20.0%
70	30.0%	30.0%	30.0%	30.0%
71+	100.0%	100.0%	100.0%	100.0%

Appendix

Disability Rates

	Current Assumption		Proposed Assumption	
Age	Male	Female	Male	Female
20	0.0100%	0.0100%	0.0090%	0.0100%
21	0.0100%	0.0100%	0.0090%	0.0100%
22	0.0100%	0.0100%	0.0090%	0.0100%
23	0.0100%	0.0100%	0.0090%	0.0100%
24	0.0100%	0.0100%	0.0090%	0.0100%
25	0.0100%	0.0100%	0.0090%	0.0100%
26	0.0100%	0.0100%	0.0090%	0.0100%
27	0.0100%	0.0100%	0.0090%	0.0100%
28	0.0100%	0.0100%	0.0090%	0.0100%
29	0.0100%	0.0100%	0.0090%	0.0100%
30	0.0100%	0.0100%	0.0090%	0.0100%
31	0.0100%	0.0100%	0.0090%	0.0100%
32	0.0100%	0.0100%	0.0090%	0.0100%
33	0.0100%	0.0100%	0.0090%	0.0100%
34	0.0200%	0.0200%	0.0180%	0.0200%
35	0.0300%	0.0300%	0.0270%	0.0300%
36	0.0400%	0.0400%	0.0360%	0.0400%
37	0.0500%	0.0500%	0.0450%	0.0500%
38	0.0600%	0.0600%	0.0540%	0.0600%
39	0.0700%	0.0700%	0.0630%	0.0700%
40	0.0800%	0.0800%	0.0720%	0.0800%
41	0.0900%	0.0900%	0.0810%	0.0900%
42	0.1000%	0.1000%	0.0900%	0.1000%
43	0.1100%	0.1100%	0.0990%	0.1100%
44	0.1200%	0.1200%	0.1080%	0.1200%
45	0.1300%	0.1300%	0.1170%	0.1300%
46	0.1400%	0.1400%	0.1260%	0.1400%
47	0.1500%	0.1500%	0.1350%	0.1500%
48	0.1800%	0.1800%	0.1620%	0.1800%
49	0.2100%	0.2100%	0.1890%	0.2100%
50	0.2880%	0.2880%	0.2592%	0.2880%
51	0.3240%	0.3240%	0.2916%	0.3240%
52	0.3600%	0.3600%	0.3240%	0.3600%
53	0.4080%	0.3840%	0.3672%	0.3840%
54	0.4560%	0.4080%	0.4104%	0.4080%
55	0.5040%	0.4320%	0.4536%	0.4320%
56	0.5520%	0.4560%	0.4968%	0.4560%
57	0.6000%	0.4800%	0.5400%	0.4800%
58	0.6600%	0.5280%	0.5940%	0.5280%
59	0.7200%	0.5760%	0.6480%	0.5760%
60	0.7800%	0.6240%	0.7020%	0.6240%
61	0.8400%	0.6720%	0.7560%	0.6720%
62	0.9000%	0.7200%	0.8100%	0.7200%
63	0.9600%	0.7680%	0.8640%	0.7680%
64	1.0200%	0.8160%	0.9180%	0.8160%
65+	0.0000%	0.0000%	0.0000%	0.0000%

Appendix

Salary Scale

Current Assumption		Proposed Assumption	
Age	**Ultimate***	**Service**	**Ultimate**
20	5.75%	1	10.52%
21	5.75%	2	8.06%
22	5.75%	3	6.90%
23	5.75%	4	6.18%
24	5.75%	5	5.68%
25	5.75%	6	5.29%
26	5.75%	7	4.99%
27	5.75%	8	4.74%
28	5.75%	9	4.53%
29	5.75%	10	4.35%
30	5.75%	11	4.20%
31	5.75%	12	4.06%
32	5.75%	13	3.94%
33	5.75%	14	3.83%
34	5.75%	15	3.73%
35	5.75%	16	3.63%
36	5.75%	17	3.55%
37	5.75%	18	3.50%
38	5.75%	19	3.50%
39	5.75%	20	3.50%
40	5.75%	21	3.50%
41	5.75%	22	3.50%
42	5.75%	23	3.50%
43	5.65%	24	3.50%
44	5.55%	25	3.50%
45	5.45%	26	3.50%
46	5.35%	27	3.50%
47	5.25%	28	3.50%
48	5.15%	29	3.50%
49	5.05%	30+	3.50%
50	4.95%		
51	4.85%		
52	4.75%		
53	4.65%		
54	4.55%		
55	4.45%		
56	4.35%		
57+	4.25%		

* During a 5-year select period, 0.60% x (5-T) where T is completed years of service is added to the ultimate rate for the current assumption.

Appendix

Detailed Experience Analysis

Salary Increases

2004-2008 Experience

Age Group	Service < 5 Years		Service >= 5 Years	
	Actual Increases	Expected Increases	Actual Increases	Expected Increases
<20	12.21%	7.96%		
20 – 24	8.45%	7.66%	6.58%	5.75%
25 – 29	7.38%	7.26%	5.76%	5.75%
30 – 34	6.81%	7.16%	5.45%	5.75%
35 – 39	7.38%	7.15%	5.16%	5.75%
40 – 44	7.98%	7.09%	4.49%	5.69%
45 – 49	8.07%	6.63%	3.94%	5.25%
50 – 54	7.26%	6.13%	3.61%	4.75%
55 – 59	7.49%	5.68%	3.24%	4.31%
60 – 64	7.09%	5.62%	2.82%	4.25%
65 – 69	7.72%	5.56%	2.74%	4.25%
70 – 75	3.09%	5.77%	2.17%	4.25%
Total	**7.49%**	**6.84%**	**3.89%**	**4.98%**

2004-2005 Experience

Age Group	Service < 5 Years		Service >= 5 Years	
	Actual Increases	Expected Increases	Actual Increases	Expected Increases
<20	21.80%	8.15%		
20 – 24	2.53%	7.54%	3.03%	5.75%
25 – 29	6.19%	7.14%	5.62%	5.75%
30 – 34	5.54%	7.04%	4.35%	5.75%
35 – 39	5.96%	7.05%	3.87%	5.75%
40 – 44	7.06%	6.98%	3.28%	5.69%
45 – 49	7.46%	6.50%	2.83%	5.25%
50 – 54	6.25%	6.00%	2.62%	4.75%
55 – 59	7.33%	5.56%	2.15%	4.31%
60 – 64	7.55%	5.57%	1.59%	4.25%
65 – 69	9.82%	5.44%	1.16%	4.25%
70 – 75	7.40%	5.91%	1.21%	4.25%
Total	**6.32%**	**6.73%**	**2.82%**	**5.02%**

Appendix

Salary Increases

2005-2006 Experience

	Service < 5 Years		Service >= 5 Years	
Age Group	Actual Increases	Expected Increases	Actual Increases	Expected Increases
<20	14.57%	8.15%		
20 – 24	8.68%	7.65%	7.53%	5.75%
25 – 29	7.04%	7.20%	4.95%	5.75%
30 – 34	6.91%	7.09%	5.37%	5.75%
35 – 39	7.84%	7.11%	5.44%	5.75%
40 – 44	7.59%	7.04%	4.63%	5.69%
45 – 49	8.35%	6.60%	4.02%	5.25%
50 – 54	7.10%	6.15%	3.62%	4.75%
55 – 59	6.94%	5.65%	3.30%	4.31%
60 – 64	5.80%	5.61%	2.77%	4.25%
65 – 69	6.51%	5.40%	2.67%	4.25%
70 – 75	0.68%	5.79%	0.21%	4.25%
Total	**7.38%**	**6.80%**	**3.95%**	**5.00%**

2006-2007 Experience

	Service < 5 Years		Service >= 5 Years	
Age Group	Actual Increases	Expected Increases	Actual Increases	Expected Increases
<20	9.60%	7.75%		
20 – 24	8.13%	7.75%	8.56%	5.75%
25 – 29	8.46%	7.31%	6.11%	5.75%
30 – 34	7.35%	7.22%	5.54%	5.75%
35 – 39	7.69%	7.19%	5.25%	5.75%
40 – 44	8.46%	7.15%	4.50%	5.69%
45 – 49	8.57%	6.69%	4.01%	5.25%
50 – 54	7.94%	6.15%	3.67%	4.75%
55 – 59	6.67%	5.73%	3.26%	4.31%
60 – 64	7.95%	5.62%	2.87%	4.25%
65 – 69	2.37%	5.65%	2.96%	4.25%
70 – 75	1.26%	5.66%	3.09%	4.25%
Total	**7.91%**	**6.89%**	**3.95%**	**4.97%**

Appendix

Salary Increases

2007-2008 Experience

Age Group	Service < 5 Years		Service >= 5 Years	
	Actual Increases	Expected Increases	Actual Increases	Expected Increases
<20	6.35%	8.00%		
20 – 24	15.18%	7.70%	3.92%	5.75%
25 – 29	7.75%	7.38%	6.82%	5.75%
30 – 34	7.78%	7.32%	6.52%	5.75%
35 – 39	8.01%	7.26%	6.22%	5.75%
40 – 44	8.95%	7.22%	5.83%	5.69%
45 – 49	8.35%	6.78%	5.04%	5.25%
50 – 54	7.99%	6.24%	4.55%	4.75%
55 – 59	9.09%	5.79%	4.04%	4.31%
60 – 64	6.09%	5.68%	3.69%	4.25%
65 – 69	8.99%	5.77%	3.38%	4.25%
70 – 75	2.83%	5.73%	3.73%	4.25%
Total	**8.48%**	**6.96%**	**4.85%**	**4.95%**

Appendix

Detailed Experience Analysis

Postretirement Mortality

2004-2008 Experience

Age Group	Males			Females			Total		
	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
55-59	28	16.70	167.7%	32	9.70	329.9%	60	26.40	227.3%
60-64	79	67.19	117.6	64	33.22	192.7	143	100.41	142.4
65-69	128	143.12	89.4	87	73.30	118.7	215	216.43	99.3
70-74	191	222.62	85.8	164	110.83	148.0	355	333.46	106.5
75-79	253	280.94	90.1	181	202.94	89.2	434	483.88	89.7
80-84	335	335.59	99.8	290	300.14	96.6	625	635.72	98.3
85-89	297	271.24	109.5	329	312.42	105.3	626	583.66	107.3
90-94	152	119.40	127.3	330	235.87	139.9	482	355.27	135.7
95-99	42	34.99	120.0	105	86.22	121.8	147	121.21	121.3
100+	11	8.60	127.9	28	28.80	97.2	39	37.40	104.3
Total	**1,516**	**1,500.39**	**101.0**	**1,610**	**1,393.45**	**115.5**	**3,126**	**2,893.84**	**108.0**

2004-2005 Experience

Age Group	Males			Females			Total		
	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
55-59	7	3.99	175.6%	9	2.19	410.5%	16	6.18	259.0%
60-64	31	15.76	196.7	24	7.60	315.9	55	23.36	235.4
65-69	34	34.00	100.0	33	16.75	197.0	67	50.75	132.0
70-74	60	53.92	111.3	51	26.74	190.7	111	80.66	137.6
75-79	68	69.54	97.8	42	50.59	83.0	110	120.13	91.6
80-84	79	80.16	98.5	57	71.57	79.6	136	151.74	89.6
85-89	78	62.08	125.6	75	71.30	105.2	153	133.38	114.7
90-94	37	26.01	142.2	91	54.21	167.9	128	80.23	159.5
95-99	13	10.05	129.4	28	19.53	143.4	41	29.58	138.6
100+	1	1.46	68.3	11	8.23	133.7	12	9.69	123.8
Total	**408**	**356.97**	**114.3**	**421**	**328.72**	128.1	**829**	**685.69**	**120.9**

Appendix

Postretirement Mortality

2005-2006 Experience

	Males			Females			Total		
Age Group	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
55-59	5	4.24	118.0%	9	2.45	367.7%	14	6.68	209.4%
60-64	13	16.38	79.4	10	7.79	128.5	23	24.16	95.2
65-69	35	34.48	101.5	16	17.99	88.9	51	52.47	97.2
70-74	39	54.71	71.3	39	26.97	144.6	78	81.68	95.5
75-79	61	69.37	87.9	43	50.38	85.4	104	119.74	86.9
80-84	94	83.83	112.1	80	74.42	107.5	174	158.24	110.0
85-89	66	65.23	101.2	74	74.48	99.4	140	139.71	100.2
90-94	26	26.90	96.7	72	56.50	127.4	98	83.39	117.5
95-99	10	8.33	120.0	21	20.39	103.0	31	28.72	107.9
100+	2	2.32	86.2	7	7.04	99.4	9	9.36	96.1
Total	**351**	**365.78**	**96.0**	**371**	**338.39**	**109.6**	**722**	**704.17**	**102.5**

2006-2007 Experience

	Males			Females			Total		
Age Group	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
55-59	5	4.22	118.4%	6	2.53	237.3%	11	6.75	162.9%
60-64	16	17.21	93.0	13	8.44	154.1	29	25.64	113.1
65-69	30	35.96	83.4	12	18.69	64.2	42	54.65	76.9
70-74	41	56.22	72.9	40	27.84	143.7	81	84.07	96.4
75-79	55	69.33	79.3	48	51.68	92.9	103	121.01	85.1
80-84	78	85.09	91.7	75	75.46	99.4	153	160.55	95.3
85-89	72	70.53	102.1	96	81.43	117.9	168	151.97	110.6
90-94	36	31.88	112.9	76	60.21	126.2	112	92.09	121.6
95-99	13	7.93	164.0	28	22.30	125.6	41	30.23	135.6
100+	6	3.00	200.1	6	7.07	84.8	12	10.07	119.2
Total	**352**	**381.36**	**92.3**	**400**	**355.66**	**112.5**	**752**	**737.02**	**102.0**

Appendix

Postretirement Mortality

2007-2008 Experience

	Males			Females			Total		
Age Group	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
55-59	11	4.25	258.8%	8	2.54	315.0%	19	6.79	279.8%
60-64	19	17.84	106.5	17	9.40	180.9	36	27.24	132.2
65-69	29	38.69	75.0	26	19.86	130.9	55	58.56	93.9
70-74	51	57.78	88.3	34	29.27	116.2	85	87.05	97.6
75-79	69	72.71	94.9	48	50.29	95.4	117	123.00	95.1
80-84	84	86.51	97.1	78	78.69	99.1	162	165.19	98.1
85-89	81	73.39	110.4	84	85.21	98.6	165	158.61	104.0
90-94	53	34.61	153.1	91	64.95	140.1	144	99.56	144.6
95-99	6	8.68	69.1	28	24.00	116.7	34	32.68	104.0
100	2	1.82	109.9	4	6.46	61.9	6	8.28	72.4
Total	**405**	**396.27**	**102.2**	**418**	**370.68**	**112.8**	**823**	**766.96**	**107.3**

Appendix

Preretirement Mortality

2004-2008 Experience

Age Group	Males			Females			Total		
	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
25-29	-	2.28	-	-	2.20	-	-	4.48	-
30-34	3	3.12	96.0%	2	2.93	68.3%	5	6.05	82.6%
35-39	2	5.34	37.4	1	4.77	21.0	3	10.11	29.7
40-44	9	10.36	86.9	9	9.29	96.9	18	19.65	91.6
45-49	12	21.54	55.7	16	18.49	86.5	28	40.02	70.0
50-54	34	46.64	72.9	29	31.58	91.8	63	78.22	80.5
55-59	52	74.51	69.8	29	36.92	78.5	81	111.43	72.7
60-64	45	47.28	95.2	22	25.29	87.0	67	72.57	92.3
Total	**157**	**211.07**	**74.4**	**108**	**131.47**	**82.1**	**265**	**342.54**	**77.4**

2004-2005 Experience

Age Group	Males			Females			Total		
	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
25-29	-	0.53	-	-	0.52	-	-	1.05	-
30-34	-	0.79	-	-	0.75	-	-	1.54	-
35-39	-	1.37	-	-	1.23	-	-	2.59	-
40-44	4	2.79	143.4%	-	2.49	-	4	5.28	75.8%
45-49	3	5.75	52.2	3	4.77	62.9%	6	10.52	57.0
50-54	4	11.98	33.4	11	7.72	142.5	15	19.70	76.1
55-59	14	17.04	82.2	7	8.06	86.8	21	25.10	83.7
60-64	13	10.01	129.8	5	5.43	92.1	18	15.44	116.6
Total	**38**	**50.26**	**75.6**	**26**	**30.95**	**84.0**	**64**	**81.21**	**78.8**

Appendix

Preretirement Mortality

2005-2006 Experience

	Males			Females			Total		
Age Group	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
25-29	-	0.55	-	-	0.52	-	-	1.07	-
30-34	1	0.76	130.9%	-	0.71	-	1	1.47	67.9%
35-39	-	1.33	-	1	1.19	84.1%	1	2.52	39.6
40-44	3	2.67	112.6	2	2.36	84.6	5	5.03	99.4
45-49	5	5.42	92.3	4	4.64	86.3	9	10.05	89.5
50-54	7	11.88	58.9	7	7.88	88.8	14	19.77	70.8
55-59	14	18.64	75.1	5	8.94	55.9	19	27.58	68.9
60-64	14	11.06	126.6	7	5.82	120.2	21	16.88	124.4
Total	**44**	**52.32**	**84.1**	**26**	**32.07**	**81.1**	**70**	**84.38**	**83.0**

2006-2007 Experience

	Males			Females			Total		
Age Group	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
25-29	-	0.58	-	-	0.56	-	-	1.14	-
30-34	-	0.78	-	1	0.72	139.0%	1	1.50	66.8%
35-39	2	1.32	151.7%	-	1.18	-	2	2.50	80.0
40-44	1	2.52	39.7	3	2.28	131.8	4	4.79	83.4
45-49	3	5.29	56.7	5	4.55	110.0	8	9.84	81.3
50-54	10	11.59	86.3	7	8.03	87.1	17	19.62	86.7
55-59	9	19.39	46.4	11	9.81	112.1	20	29.20	68.5
60-64	9	12.37	72.8	7	6.55	106.9	16	18.91	84.6
Total	**34**	**53.81**	**63.2**	**34**	**33.68**	**100.9**	**68**	**87.50**	**77.7**

Appendix

Preretirement Mortality

2007-2008 Experience

	Males			Females			Total		
Age Group	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
25-29	-	0.62	-	-	0.60	-	-	1.22	-
30-34	2	0.80	250.5%	1	0.75	133.8%	3	1.55	194.1%
35-39	-	1.32	-	-	1.17	-	-	2.49	-
40-44	1	2.39	41.8	4	2.16	185.2	5	4.55	109.9
45-49	1	5.08	19.7	4	4.54	88.2	5	9.62	52.0
50-54	13	11.19	16.2	4	7.95	50.3	17	19.13	88.8
55-59	15	19.45	77.1	6	10.11	59.4	21	29.55	71.1
60-64	9	13.84	65.0	3	7.50	40.0	12	21.34	56.2
Total	**41**	**54.68**	**75.0**	**22**	**34.77**	**63.3**	**63**	**89.45**	**70.4**

Appendix

Disability Mortality

2004-2008 Experience

Age Group	Males			Females			Total		
	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
40-44	1	1.50	66.5%	3	4.38	68.5%	4	5.88	68.0%
45-49	4	6.04	66.2%	4	11.71	34.1%	8	17.76	45.1%
50-54	16	16.23	98.6%	17	22.52	75.5%	33	38.75	85.2%
55-59	23	24.54	93.7%	19	23.74	80.0%	42	48.28	87.0%
60-64	34	14.05	242.1%	17	10.04	169.3%	51	24.09	211.7%
65-69	19	7.40	256.7%	16	3.17	504.9%	35	10.57	331.1%
70-74	15	5.99	250.5%	9	2.86	314.3%	24	8.85	271.2%
75-79	11	6.50	169.3%	6	3.35	178.9%	17	9.85	172.6%
80-84	21	9.35	224.5%	13	5.20	250.1%	34	14.55	233.7%
85-89	6	6.20	96.8%	10	5.63	177.7%	16	11.83	135.3%
90+	3	1.75	171.1%	8	2.66	300.2%	11	4.42	249.0%
Total	**153**	**99.55**	**153.7%**	**122**	**95.27**	**128.1%**	**275**	**194.82**	**141.2%**

2004-2005 Experience

Age Group	Males			Females			Total		
	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
40-44	-	0.49	0.0%	-	1.33	0.0%	-	1.81	0.0%
45-49	1	1.84	54.5%	3	3.00	100.0%	4	4.83	82.7%
50-54	6	3.90	153.9%	4	5.32	75.1%	10	9.22	108.4%
55-59	7	5.61	124.7%	7	5.23	134.0%	14	10.84	129.2%
60-64	5	3.23	154.8%	3	2.15	139.3%	8	5.38	148.6%
65-69	4	1.60	250.7%	6	0.67	897.9%	10	2.26	441.7%
70-74	4	1.64	243.3%	-	0.65	0.0%	4	2.29	174.6%
75-79	2	1.27	157.7%	1	0.65	152.8%	3	1.92	156.0%
80-84	6	2.90	207.0%	-	1.80	0.0%	6	4.70	127.8%
85-89	1	1.19	84.2%	2	1.59	125.9%	3	2.78	108.1%
90+	-	0.45	0.0%	1	0.48	207.4%	1	0.94	106.8%
Total	**36**	**24.11**	**149.3%**	**27**	**22.87**	**118.1%**	**63**	**46.98**	**134.1%**

Appendix

Disability Mortality

2005-2006 Experience

Age Group	Males			Females			Total		
	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
40-44	-	0.44	0.0%	1	1.11	90.5%	1	1.55	64.6%
45-49	-	1.66	0.0%	-	2.90	0.0%	-	4.56	0.0%
50-54	4	4.08	98.1%	2	5.45	36.7%	6	9.53	62.9%
55-59	6	5.94	101.1%	3	5.71	52.5%	9	11.65	77.2%
60-64	12	3.32	361.6%	6	2.47	242.9%	18	5.79	310.9%
65-69	5	1.81	275.8%	2	0.74	270.5%	7	2.55	274.3%
70-74	6	1.46	412.1%	2	0.75	265.3%	8	2.21	362.0%
75-79	2	1.63	122.5%	-	0.77	0.0%	2	2.41	83.2%
80-84	9	2.65	340.0%	12	1.58	760.8%	21	4.22	497.1%
85-89	-	1.44	0.0%	6	1.40	429.1%	6	2.84	211.1%
90+	2	0.49	410.3%	5	0.99	505.1%	7	1.48	473.8%
Total	**46**	**24.91**	**184.6%**	**39**	**23.88**	**163.3%**	**85**	**48.79**	**174.2%**

2006-2007 Experience

Age Group	Males			Females			Total		
	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
40-44	-	0.31	0.0%	1	0.97	102.8%	1	1.28	78.0%
45-49	2	1.30	154.1%	1	3.04	32.9%	3	4.34	69.2%
50-54	4	4.50	88.9%	6	6.01	99.8%	10	10.51	95.1%
55-59	4	6.28	63.7%	5	6.49	77.0%	9	12.77	70.5%
60-64	5	3.48	143.6%	5	2.49	201.1%	10	5.97	167.5%
65-69	5	1.95	256.0%	3	0.83	360.8%	8	2.78	287.3%
70-74	2	1.25	160.1%	4	0.72	555.1%	6	1.97	304.6%
75-79	3	1.91	157.2%	4	0.97	412.1%	7	2.88	243.2%
80-84	3	1.84	163.3%	1	1.02	98.5%	4	2.85	140.2%
85-89	4	1.86	215.1%	2	1.22	163.9%	6	3.08	194.8%
90+	1	0.47	214.4%	-	0.47	0.0%	1	0.94	106.7%
Total	**33**	**25.15**	**131.2%**	**32**	**24.23**	**132.1%**	**65**	**49.37**	**131.6%**

Appendix

Disability Mortality

2007-2008 Experience

	Males			Females			Total		
Age Group	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected	Actual Deaths	Expected Deaths	Actual/ Expected
40-44	1	0.27	377.3%	1	0.97	102.8%	2	1.24	161.6%
45-49	1	1.25	79.9%	-	2.77	0.0%	1	4.02	24.9%
50-54	2	3.75	53.3%	5	5.73	87.2%	7	9.48	73.8%
55-59	6	6.71	89.4%	4	6.31	63.4%	10	13.02	76.8%
60-64	12	4.01	298.9%	3	2.93	102.3%	15	6.95	215.9%
65-69	5	2.04	245.3%	5	0.93	537.6%	10	2.97	336.9%
70-74	3	1.64	183.1%	3	0.74	404.7%	6	2.38	252.2%
75-79	4	1.69	237.2%	1	0.96	104.7%	5	2.64	189.3%
80-84	3	1.97	152.2%	-	0.81	0.0%	3	2.78	108.0%
85-89	1	1.71	58.5%	-	1.42	0.0%	1	3.13	31.9%
90+	-	0.35	0.0%	2	0.72	277.2%	2	1.07	187.5%
Total	**38**	**25.38**	**149.7%**	**24**	**24.29**	**98.8%**	**62**	**49.68**	**124.8%**

Appendix

Rule of 90 Retirement

2004-2008 Experience

Age	Actual Retirements	Expected Retirements	Actual/Expected
55	49	88.75	55.2%
56	69	108.80	63.4%
57	100	172.20	58.1%
58	134	209.00	64.1%
59	191	220.60	86.6%
60	165	199.60	82.7%
61	165	211.00	78.2%
62	201	348.50	57.7%
63	104	198.80	52.3%
64	80	157.20	50.9%
Total	**1,258**	**1,914.45**	**65.7%**

2004-2005 Experience

Age	Actual Retirements	Expected Retirements	Actual/Expected
55	10	23.00	43.5%
56	14	22.40	62.5%
57	15	41.80	35.9%
58	30	41.80	71.8%
59	31	40.00	77.5%
60	25	35.00	71.4%
61	31	40.25	77.0%
62	49	73.50	66.7%
63	17	37.20	45.7%
64	11	27.60	39.9%
Total	**233**	**382.55**	**60.9%**

2005-2006 Experience

Age	Actual Retirements	Expected Retirements	Actual/Expected
55	15	22.50	66.7%
56	17	28.20	60.3%
57	21	40.60	51.7%
58	36	54.00	66.7%
59	37	46.80	79.1%
60	31	43.60	71.1%
61	39	46.75	83.4%
62	43	79.00	54.4%
63	24	46.40	51.7%
64	19	37.60	50.5%
Total	**282**	**445.45**	**63.3%**

Appendix

Rule of 90 Retirement

2006-2007 Experience

Age	Actual Retirements	Expected Retirements	Actual/Expected
55	8	20.25	39.5%
56	17	25.60	66.4%
57	31	44.60	69.5%
58	36	56.60	63.6%
59	67	67.80	98.8%
60	49	51.80	94.6%
61	43	54.50	78.9%
62	67	93.50	71.7%
63	35	54.00	64.8%
64	26	45.20	57.5%
Total	**379**	**513.85**	**73.8%**

2007-2008 Experience

Age	Actual Retirements	Expected Retirements	Actual/Expected
55	16	23.00	69.6%
56	21	32.60	64.4%
57	33	45.20	73.0%
58	32	56.60	56.5%
59	56	66.00	84.8%
60	60	69.20	86.7%
61	52	69.50	74.8%
62	42	102.50	41.0%
63	28	61.20	45.8%
64	24	46.80	51.3%
Total	**364**	**572.6**	**63.6%**

Appendix

Non-Rule of 90 Retirement

2004-2008 Experience

Age	Actual Retirements	Expected Retirements	Actual/Expected
55	262	305.90	85.6%
56	232	279.90	82.9%
57	267	247.90	107.7%
58	206	214.60	96.0%
59	214	172.05	124.4%
60	192	272.50	70.5%
61	230	213.40	107.8%
62	302	415.50	72.7%
63	196	249.20	78.7%
64	164	191.60	85.6%
65	323	477.00	67.7%
66	186	196.20	94.8%
67	96	132.00	72.7%
68	66	91.50	72.1%
69	38	66.90	56.8%
70	46	53.10	86.6%
71	27	120.00	22.5%
Total	**3,047**	**3,699.25**	**82.4%**

2004-2005 Experience

Age	Actual Retirements	Expected Retirements	Actual/Expected
55	54	74.15	72.8%
56	53	66.40	79.8%
57	58	61.50	94.3%
58	45	47.00	95.7%
59	46	33.05	139.2%
60	42	54.60	76.9%
61	47	50.80	92.5%
62	70	97.50	71.8%
63	38	57.00	66.7%
64	29	39.40	73.6%
65	74	99.00	74.7%
66	30	38.40	78.1%
67	22	29.70	74.1%
68	14	15.90	88.1%
69	9	14.70	61.2%
70	7	12.30	56.9%
71	6	30.00	20.0%
Total	**644**	**821.40**	**78.4%**

Appendix

Non-Rule of 90 Retirement

2005-2006 Experience

Age	Actual Retirements	Expected Retirements	Actual/Expected
55	61	73.15	83.4%
56	61	70.75	86.2%
57	58	59.95	96.7%
58	57	57.30	99.5%
59	57	42.70	133.5%
60	32	57.80	55.4%
61	50	47.60	105.0%
62	73	112.50	64.9%
63	58	62.00	93.5%
64	41	45.80	89.5%
65	70	110.70	63.2%
66	34	45.60	74.6%
67	21	30.00	70.0%
68	17	24.00	70.8%
69	9	12.30	73.2%
70	14	12.30	113.8%
71	4	34.00	11.8%
Total	**717**	**898.45**	**79.8%**

2006-2007 Experience

Age	Actual Retirements	Expected Retirements	Actual/Expected
55	73	79.30	92.1%
56	57	69.65	81.8%
57	80	63.75	125.5%
58	54	53.20	101.5%
59	62	48.95	126.7%
60	64	74.90	85.4%
61	64	51.40	124.5%
62	78	98.50	79.2%
63	56	71.00	78.9%
64	42	48.60	86.4%
65	91	125.55	72.5%
66	55	53.10	103.6%
67	29	35.40	81.9%
68	19	25.20	75.4%
69	11	19.50	56.4%
70	12	11.40	105.3%
71	9	29.00	31.0%
Total	**856**	**958.40**	**89.3%**

Appendix

Non-Rule of 90 Retirement

2007-2008 Experience

Age	Actual Retirements	Expected Retirements	Actual/Expected
55	74	79.30	93.3%
56	61	73.10	83.4%
57	71	62.70	113.2%
58	50	57.10	87.6%
59	49	47.35	103.5%
60	54	85.20	63.4%
61	69	63.60	108.5%
62	81	107.00	75.7%
63	44	59.20	74.3%
64	52	57.80	90.0%
65	88	141.75	62.1%
66	67	59.10	113.4%
67	24	36.90	65.0%
68	16	26.40	60.6%
69	9	20.40	44.1%
70	13	17.10	76.0%
71	8	27.00	29.6%
Total	**830**	**1,021.00**	**81.3%**

Appendix

Appendix

Disability Retirements

2004-2008 Experience

	Males			Females			Total		
Age Group	Actual Disabilities	Expected Disabilities	Actual/ Expected	Actual Disabilities	Expected Disabilities	Actual/ Expected	Actual Disabilities	Expected Disabilities	Actual/ Expected
25-29	2	0.55	360.7%	1	0.87	115.4%	3	1.42	211.2%
30-34	2	0.73	272.7%	1	1.03	96.8%	3	1.77	169.9%
35-39	1	3.90	25.6%	5	5.08	98.5%	6	8.98	66.8%
40-44	2	10.63	18.8%	17	13.93	122.0%	19	24.56	77.4%
45-49	20	22.45	89.1%	28	29.27	95.7%	48	51.72	92.8%
50-54	57	60.74	93.8%	65	67.48	96.3%	122	128.21	95.2%
55-59	96	94.88	101.2%	66	71.18	92.7%	162	166.06	97.6%
60-64	35	59.44	58.9%	33	43.30	76.2%	68	102.74	66.2%
Total	**215**	**253.33**	**84.9%**	**216**	**232.13**	**93.1%**	**431**	**485.46**	**88.8%**

2004-2005 Experience

	Males			Females			Total		
Age Group	Actual Disabilities	Expected Disabilities	Actual/ Expected	Actual Disabilities	Expected Disabilities	Actual/ Expected	Actual Disabilities	Expected Disabilities	Actual/ Expected
25-29	-	0.13	0.0%	1	0.20	492.1%	1	0.33	300.8%
30-34	1	0.19	533.3%	-	0.27	0.0%	1	0.46	218.8%
35-39	-	1.00	0.0%	-	1.31	0.0%	-	2.31	0.0%
40-44	-	2.85	0.0%	4	3.73	107.3%	4	6.58	60.8%
45-49	8	5.99	133.5%	10	7.55	132.4%	18	13.54	132.9%
50-54	15	15.60	96.1%	10	16.49	60.6%	25	32.10	77.9%
55-59	16	21.70	73.7%	14	15.55	90.0%	30	37.25	80.5%
60-64	9	12.60	71.4%	9	9.27	97.1%	18	21.87	82.3%
Total	**49**	**60.06**	**81.6%**	**48**	**54.38**	**88.3%**	**97**	**114.44**	**84.8%**

Appendix

Disability Retirements

2005-2006 Experience

	Males			Females			Total		
Age Group	Actual Disabilities	Expected Disabilities	Actual/ Expected	Actual Disabilities	Expected Disabilities	Actual/ Expected	Actual Disabilities	Expected Disabilities	Actual/ Expected
25-29	1	0.13	746.3%	-	0.21	0.0%	1	0.34	293.6%
30-34	1	0.18	553.7%	-	0.25	0.0%	1	0.43	231.7%
35-39	-	0.97	0.0%	1	1.26	79.3%	1	2.23	44.9%
40-44	1	2.73	36.6%	6	3.55	169.2%	7	6.28	111.5%
45-49	2	5.64	35.4%	5	7.34	68.2%	7	12.98	53.9%
50-54	19	15.48	122.8%	25	16.84	148.5%	44	32.32	136.2%
55-59	27	23.74	113.7%	19	17.23	110.3%	46	40.97	112.3%
60-64	6	13.90	43.2%	7	9.94	70.4%	13	23.84	54.5%
Total	**57**	**62.78**	**90.8%**	**63**	**56.61**	**111.3%**	**120**	**119.39**	**100.5%**

2006-2007 Experience

	Males			Females			Total		
Age Group	Actual Disabilities	Expected Disabilities	Actual/ Expected	Actual Disabilities	Expected Disabilities	Actual/ Expected	Actual Disabilities	Expected Disabilities	Actual/ Expected
25-29	1	0.14	709.2%	-	0.22	0.0%	1	0.36	276.4%
30-34	-	0.18	0.0%	-	0.25	0.0%	-	0.43	0.0%
35-39	1	0.96	104.1%	2	1.26	159.0%	3	2.22	135.2%
40-44	1	2.58	38.7%	4	3.42	117.1%	5	6.00	83.3%
45-49	7	5.51	126.9%	8	7.19	111.3%	15	12.70	118.1%
50-54	10	15.09	66.3%	10	17.16	58.3%	20	32.25	62.0%
55-59	25	24.68	101.3%	15	18.91	79.3%	40	43.59	91.8%
60-64	9	15.54	57.9%	3	11.21	26.8%	12	26.75	44.9%
Total	**54**	**64.69**	**83.5%**	**42**	**59.62**	**70.4%**	**96**	**124.31**	**77.2%**

Appendix

Disability Retirements

2007-2008 Experience

	Males			Females			Total		
Age Group	Actual Disabilities	Expected Disabilities	Actual/ Expected	Actual Disabilities	Expected Disabilities	Actual/ Expected	Actual Disabilities	Expected Disabilities	Actual/ Expected
25-29	-	0.15	0.0%	-	0.24	0.0%	-	0.39	0.0%
30-34	-	0.18	0.0%	1	0.26	385.4%	1	0.44	225.0%
35-39	-	0.97	0.0%	2	1.25	160.5%	2	2.22	90.0%
40-44	-	2.46	0.0%	3	3.24	92.6%	3	5.70	52.7%
45-49	3	5.30	56.6%	5	7.19	69.5%	8	12.49	64.0%
50-54	13	14.57	89.3%	20	16.98	117.8%	33	31.55	104.6%
55-59	28	24.76	113.1%	18	19.49	92.4%	46	44.25	104.0%
60-64	11	17.40	63.2%	14	12.88	108.7%	25	30.28	82.6%
Total	**55**	**65.79**	**83.6%**	**63**	**61.53**	**102.4%**	**118**	**127.32**	**92.7%**

Appendix

Terminations

2004-2008 Experience, Service <3 Years

Age Group	Males			Females			Total		
	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected
0-1	1,017	1,523.25	66.8%	1,781	2,569.92	69.3%	2,798	4,093.17	68.4%
1-2	1,273	883.40	144.1%	2,267	1,518.00	149.3%	3,540	2,401.40	147.4%
2-3	727	408.69	177.9%	1,278	716.00	178.5%	2,005	1,124.69	178.3%
Total	**3,017**	**2,815.34**	**107.2%**	**5,326**	**4,803.92**	**110.9%**	**8,343**	**7,619.26**	**109.5%**

2004-2005 Experience, Service <3 Years

Age Group	Males			Females			Total		
	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected
0-1	252	363.60	69.3%	467	610.56	76.5%	719	974.16	73.8%
1-2	283	159.88	177.0%	496	301.05	164.8%	779	460.93	169.0%
2-3	168	103.41	162.5%	365	185.20	197.1%	533	288.61	184.7%
Total	**703**	**626.89**	**112.1%**	**1,328**	**1,096.81**	**121.1%**	**2,031**	**1,723.70**	**117.8%**

2005-2006 Experience, Service <3 Years

Age Group	Males			Females			Total		
	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected
0-1	215	323.10	66.5%	402	580.32	69.3%	617	903.42	68.3%
1-2	301	233.24	129.1%	547	353.85	154.6%	848	587.09	144.4%
2-3	139	72.90	190.7%	274	146.50	187.0%	413	219.40	188.2%
Total	**655**	**629.24**	**104.1%**	**1,223**	**1,080.67**	**113.2%**	**1,878**	**1,709.91**	**109.8%**

2006-2007 Experience, Service <3 Years

Age Group	Males			Females			Total		
	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected
0-1	306	420.75	72.7%	484	727.68	66.5%	790	1,148.43	68.8%
1-2	317	226.24	140.1%	602	404.10	149.0%	919	630.34	145.8%
2-3	220	118.62	185.5%	313	179.10	174.8%	533	297.72	179.0%
Total	**843**	**765.61**	**110.1%**	**1,399**	**1,310.88**	**106.7%**	**2,242**	**2,076.49**	**108.0%**

Appendix

Terminations

2007-2008 Experience, Service <3 Years

	Males			Females			Total		
Age Group	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected
0-1	244	415.80	58.7%	428	651.36	65.7%	672	1,067.16	63.0%
1-2	372	264.04	140.9%	622	459.00	135.5%	994	723.04	137.5%
2-3	200	113.76	175.8%	326	205.20	158.9%	526	318.96	164.9%
Total	816	793.60	102.8%	1,376	1,315.56	104.6%	2,192	2,109.16	103.9%

Appendix

Terminations

2004-2008 Experience, Service >3 Years

	Males			Females			Total		
Age Group	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected
25-29	335	138.18	242.4%	586	264.50	221.6%	921	402.68	228.7%
30-34	393	179.09	219.4%	629	365.01	172.3%	1,022	544.10	187.8%
35-39	384	212.04	181.1%	565	354.48	159.4%	949	566.51	167.5%
40-44	369	264.86	139.3%	544	456.55	119.2%	913	721.41	126.6%
45-49	373	305.14	122.2%	596	539.43	110.5%	969	844.57	114.7%
50-54	386	303.17	127.3%	594	471.75	125.9%	980	774.92	126.5%
Total	**2,240**	**1,402.47**	**159.7%**	**3,514**	**2,451.72**	**143.3%**	**5,754**	**3,854.19**	**149.3%**

2004-2005 Experience, Service >3 Years

	Males			Females			Total		
Age Group	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected
25-29	100	37.48	266.8%	160	69.45	230.4%	260	106.93	243.2%
30-34	98	46.96	208.7%	165	97.91	168.5%	263	144.87	181.5%
35-39	100	56.88	175.8%	124	93.54	132.6%	224	150.41	148.9%
40-44	99	73.75	134.2%	133	126.09	105.5%	232	199.85	116.1%
45-49	98	82.95	118.1%	148	142.87	103.6%	246	225.82	108.9%
50-54	92	78.52	117.2%	144	116.37	123.7%	236	194.89	121.1%
Total	**587**	**376.54**	**155.9%**	**874**	**646.23**	**135.2%**	**1,461**	**1,022.76**	**142.8%**

2005-2006 Experience, Service >3 Years

	Males			Females			Total		
Age Group	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected
25-29	84	36.63	229.3%	168	69.17	242.9%	252	105.80	238.2%
30-34	102	46.03	221.6%	193	94.07	205.2%	295	140.09	210.6%
35-39	116	54.23	213.9%	153	92.05	166.2%	269	146.28	183.9%
40-44	101	70.14	144.0%	153	119.40	128.1%	254	189.53	134.0%
45-49	95	78.27	121.4%	149	137.44	108.4%	244	215.71	113.1%
50-54	84	77.85	107.9%	146	119.63	122.0%	230	197.47	116.5%
Total	**582**	**363.14**	**160.3%**	**962**	**631.76**	**152.3%**	**1,544**	**994.90**	**155.2%**

Appendix

Terminations

2006-2007 Experience, Service >3 Years

	Males			Females			Total		
Age Group	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected
25-29	71	31.45	225.7%	136	62.34	218.2%	207	93.79	220.7%
30-34	105	42.49	247.1%	137	85.41	160.4%	242	127.90	189.2%
35-39	96	51.54	186.2%	152	86.56	175.6%	248	138.11	179.6%
40-44	95	62.72	151.5%	153	110.00	139.1%	248	172.72	143.6%
45-49	94	73.89	127.2%	157	131.75	119.2%	251	205.64	122.1%
50-54	113	74.88	150.9%	150	119.17	125.9%	263	194.05	135.5%
Total	**574**	**336.98**	**170.3%**	**885**	**595.24**	**148.7%**	**1,459**	**932.22**	**156.5%**

2007-2008 Experience, Service >3 Years

	Males			Females			Total		
Age Group	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected	Actual Terminations	Expected Terminations	Actual/ Expected
25-29	80	32.62	245.3%	122	63.54	192.0%	202	96.16	210.1%
30-34	88	43.61	201.8%	134	87.62	152.9%	222	131.24	169.2%
35-39	72	49.38	145.8%	136	82.32	165.2%	208	131.71	157.9%
40-44	74	58.25	127.0%	105	101.06	103.9%	179	159.31	112.4%
45-49	86	70.03	122.8%	142	127.37	111.5%	228	197.39	115.5%
50-54	97	71.92	134.9%	154	116.58	132.1%	251	188.50	133.2%
Total	**497**	**325.81**	**152.5%**	**793**	**578.50**	**137.1%**	**1,290**	**904.31**	**142.7%**

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