



BARTEL
ASSOCIATES, LLC

**Alaska Railroad Corporation
Pension and Post Retirement Health Care Plans**

**2010-2014 Experience Study
Demographic Actuarial Assumptions
Final Results**

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2010-2014 ACTUARIAL EXPERIENCE STUDY

**ALASKA RAILROAD CORPORATION PENSION PLAN
and
POST EMPLOYMENT HEALTH CARE PLAN**

This report presents the Alaska Railroad Corporation Pension and Post Retirement Health Care Plans demographic actuarial experience study covering the period from January 1, 2010 through January 1, 2015.

Actuarial assumptions are used in the annual actuarial valuations of the plans to project the amounts and timing of future plan benefits. In each year's actuarial valuation, actual experience is compared against the results predicted by the actuarial assumptions, and any differences are analyzed and then amortized as part of the annual contribution. So, in the long run, the plan costs are determined by the benefits paid rather than the actuarial assumptions. Actuarial assumptions which are set as the best estimate of future plan experience mean that the plan's liabilities give the best possible picture of future plan costs and that the plan's actuarial costs will result in orderly plan funding.

This study reviews experience for the five-year period ending January 1, 2015. This gives sufficient experience for reliable results while providing a balance between reflecting current demographic trends but minimizing short-term anomalies. Based on the results of the study, we have recommended actuarial assumptions for adoption by the Committees.

To the best of my knowledge, this report has been conducted using generally accepted actuarial principles and practices. The undersigned is a member of the American Academy of Actuaries meeting the Academy Qualification Standards.



Mary Elizabeth Redding, FSA, EA, MAAA, FCA
Vice President
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March 27, 2020

TABLE OF CONTENTS

SECTION	PAGE
1. Methodology	1
2. Salary Merit Increases	2
3. Disablement	6
4. Post Retirement Health Care Participation	7
5. Future Service for Laid Off Participants	9
6. Retirement	11
7. Employment Termination	14
8. Impact of Results	18

SECTION 1

METHODOLOGY

This study reviews demographic experience of the Pension and Post Retirement Health Care plans for the five-year period ending January 1, 2015. This gives sufficient experience for reliable results while providing a balance between reflecting current demographic trends while minimizing short-term anomalies.

We focused the study on four specific assumptions:

- Salary increases
- Future credited service earned for laid-off participants
- Disablement
- Postretirement health care participation rates upon retirement and also upon Medicare eligibility

We also reviewed rates of termination and retirement, as they are important to both valuations. We did not review the economic assumptions such as the discount rate, inflation, or medical trend rates as we think the current rates are reasonable.

Alaska Railroad supplied files of data for each plan for 2010 to 2015 as of the January 1 valuation dates. We reviewed the data files and consolidated them so that we could track each plan participant from year to year, identifying changes in their status, earnings, and credited service. For purposes of this study, active and laid-off employees were treated identically, except when measuring future credited service for laid-off participants.

Analyzing this data, we developed probabilities of each specific event occurring. We looked at the probabilities in relation to both age and service, and selected the index that produced the best fit to develop our recommended assumptions.

Setting actuarial assumptions is as much an art as it is a science. In making our recommendation, we considered the observed experience, credibility of that experience based on the number of events in the study, the current assumptions, and our expectations for future experience.

As the final step in this study, we determined the impact on the plans' liabilities and annual costs of each recommended assumption change separately and in total.

SECTION 2

SALARY MERIT INCREASES

Economic actuarial assumptions such as investment return, cost of living increases for retirees, and salary increases, are set using a building block approach. This means that all are built on the same base – inflation – with specific increments added as needed to build each assumption.

Salary increases are most commonly set as the sum of three components: inflation, across-the-board productivity (average pay increases in excess of inflation), and individual “merit” increases. For purposes of this study and our recommended assumptions, we have combined across-the-board productivity and merit increases.

In order to study merit increases, we removed the prior year CPI from each active or laid-off participant’s year-to-year pay increases. Based on the Anchorage area Consumer Price Index, All Items, 1982-84=100 for Urban Wage Earners and Clerical Workers (CPI-W), the 5-year average CPI increase was 2.62%. We analyzed the resulting pay increases net of inflation to develop our recommended rates. In the actuarial valuation, these new merit increases will be added to the assumed inflation rate (3%) to model total salary increases.

The previous salary assumption was 4% per year, not dependent on age, service, or inflation. In order to compare the previous assumption to our observed merit increases, we removed the 2.62% average CPI increase for a net assumed salary increase of 1.34%.

The average pay increased approximately 3.25% per year during the study period, or 0.6% over inflation.

SECTION 2

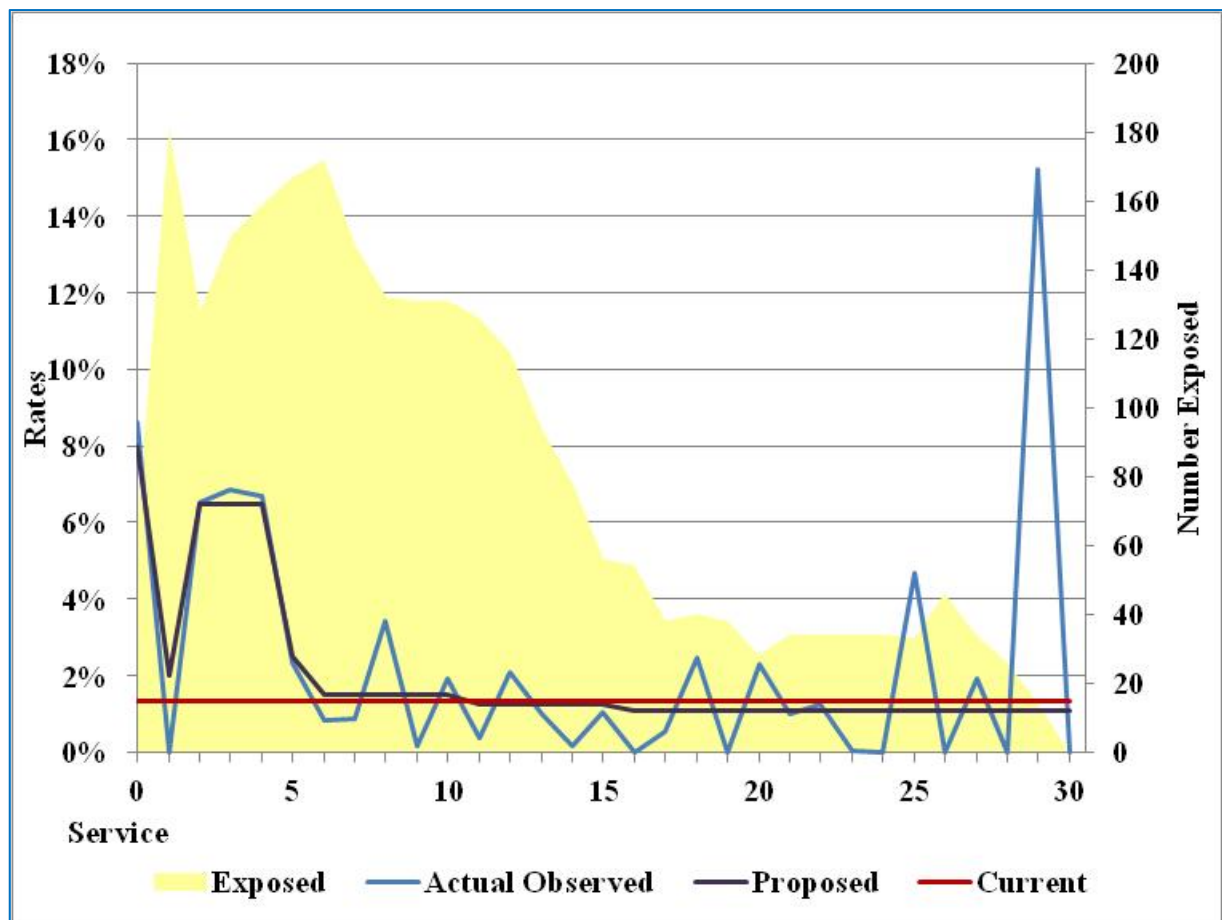
SALARY MERIT INCREASES

Results

The chart below shows the average merit pay increases (increases in excess of inflation) observed for each participant, grouped by years of service. The blue line shows the actual rates observed in the data while the black line plots our recommended assumption. The red line illustrates the current assumption (4% reduced by CPI, or 1.34%).

The yellow area behind the lines shows the number of “exposures” in the study and is read on the right-hand axis. This is the number of participants at each age whose salary changes we analyzed, counted as 1 exposure for each year in the study. The larger the exposure, the more reliable the data is considered. For this reason, we have not factored into our recommendation the spikes observed at 25 and 29 years of service.

Average Merit Increases by Years of Service



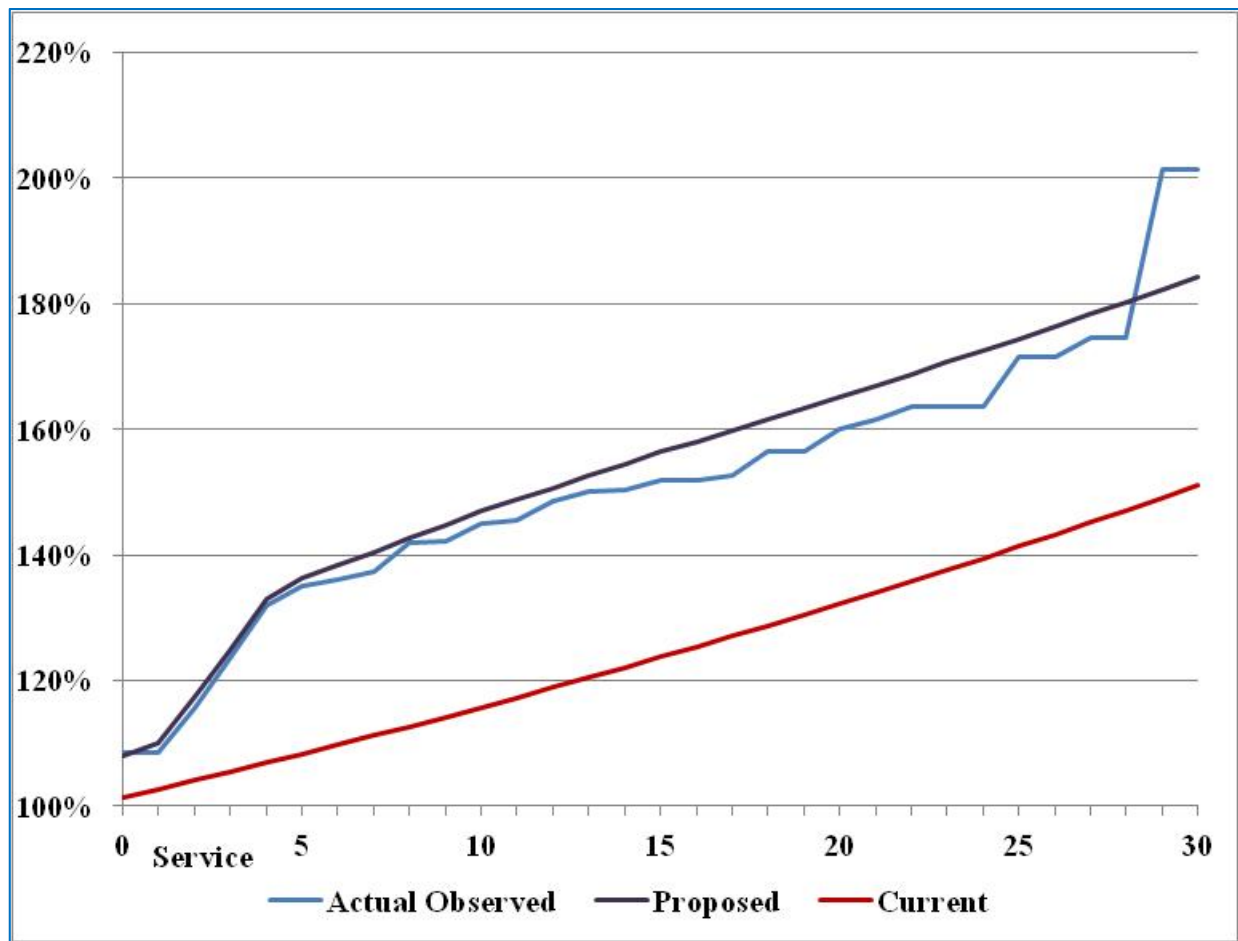
SECTION 2

SALARY MERIT INCREASES

Salary increase rates can also be compared by calculating the compounded salary increase over a participant's career. The following chart shows the salaries each year for a newly hired employee if the current salary scale applied, and also based on the observed rates and our recommended rates. The large difference between the current rate line and the observed and proposed rate lines is primarily due to large observed increases in the first few years of service.

Note that amounts shown in the following chart are merit increases only and exclude pay increases due to inflation.

Compounded Merit Increases Over an Employee's Career



SECTION 2

SALARY MERIT INCREASES

Proposed Merit Increase Rates

The following table details the observed and our proposed salary merit increase assumption.

Service	Observed Rate	Previous Assumption	Proposed Assumption
0	8.61%	1.34%	8.00%
1	0.00%	1.34%	2.00%
2	6.52%	1.34%	6.50%
3	6.87%	1.34%	6.50%
4	6.70%	1.34%	6.50%
5	2.33%	1.34%	2.50%
6	0.83%	1.34%	1.50%
7	0.85%	1.34%	1.50%
8	3.44%	1.34%	1.50%
9	0.14%	1.34%	1.50%
10	1.92%	1.34%	1.50%
11	0.39%	1.34%	1.25%
12	2.08%	1.34%	1.25%
13	1.02%	1.34%	1.25%
14	0.14%	1.34%	1.25%
15	1.05%	1.34%	1.25%
16	0.00%	1.34%	1.10%
17	0.55%	1.34%	1.10%
18	2.47%	1.34%	1.10%
19	0.00%	1.34%	1.10%
20	2.31%	1.34%	1.10%
21	0.99%	1.34%	1.10%
22	1.27%	1.34%	1.10%
23	0.02%	1.34%	1.10%
24	0.00%	1.34%	1.10%
25	4.69%	1.34%	1.10%
26	0.00%	1.34%	1.10%
27	1.90%	1.34%	1.10%
28	0.00%	1.34%	1.10%
29	15.24%	1.34%	1.10%
30	0.00%	1.34%	1.10%

SECTION 3

DISABLEMENT

The experience study data contained only 4 employees who retired due to disability during the 5 year period, out of 3,621 total exposed lives (each participant is counted as 1 exposed life for each year in the study). The number of disablements is not sufficient to develop rates of disablement based on the study data alone. However, the data clearly indicates that the current disablement rates, which predict 19 disabled retirees during the period, are too high.

As an alternative, we looked at the rates used in the actuarial valuation of the State of Alaska Public Employees Retirement System (PERS) for members other than police officers or firefighters. These rates are based on an experience study performed by PERS for the period 2005-2009. We found that these rates, when applied to Alaska Railroad's study population, predict 3.5 disablements which is very close to the 4 observed.

We recommend the use of the PERS disablement rates, as they produce results reasonably close to those observed, and are based on the experience of a somewhat similar population.

Age	Observed Rates	Previous Assumption	Alaska PERS Rates (Proposed)	Observed Number of Disablements	Expected Number of Disablements (Previous rates)	Expected Number of Disablements (Proposed rates)
20-24	0.000%	0.061%	0.025%	0	0.12	0.05
25-29	0.000%	0.089%	0.028%	0	0.25	0.08
30-34	0.000%	0.129%	0.038%	0	0.51	0.15
35-39	0.000%	0.193%	0.044%	0	0.83	0.19
40-44	0.194%	0.291%	0.056%	1	1.5	0.29
45-49	0.184%	0.455%	0.081%	1	2.47	0.44
50-54	0.000%	0.757%	0.121%	0	4.14	0.66
55-60	0.475%	1.299%	0.223%	2	5.47	0.94
60-64	0.000%	1.642%	0.348%	0	3.35	0.71
65-69	0.000%	0.158%	0.018%	0	0.09	0.01
70+	0.000%	0.750%	0.083%	0	0.09	0.01
Total				4	18.82	3.53

SECTION 4

POST RETIREMENT HEALTH CARE PARTICIPATION

Participation at Retirement

Unlike pension benefits, retiring employees must pay for all or a portion of their Alaska Railroad postemployment health care benefits. The value of a participant's benefit depends greatly on whether or not they waive coverage at retirement. The actuarial liabilities are extremely sensitive to this assumption.

Below we have analyzed rates of participation at retirement for those participants eligible for benefits at the time of their termination of employment. We've separately analyzed those eligible for the 60% of premium ARRC contribution, and those who would must pay the full premium themselves.

Post Retirement Health Care Plan Participation for Retiring Employees

	Study Year					Total
	2011	2012	2013	2014	2015	
■ Number of Active or Layoff Employees Eligible for Benefits and terminating employment during year:						
•Eligible For ARRC Contribution	10	9	7	9	8	43
•Eligible For EE Paid Only	<u>6</u>	<u>3</u>	<u>11</u>	<u>7</u>	<u>11</u>	<u>38</u>
•Total	16	12	18	16	19	81
■ Number of Retirees Beginning OPEB Benefits:						
•Eligible For ARRC Contribution	3	2	4	4	2	15
•Eligible For EE Paid Only	<u>2</u>	<u>3</u>	<u>2</u>	<u>0</u>	<u>4</u>	<u>11</u>
•Total	5	5	6	4	6	26
■ Participation Rate:						
•Eligible For ARRC Contribution	30.0%	22.2%	57.1%	44.4%	25.0%	34.9%
•Eligible For EE Paid Only	33.3%	100.0%	18.2%	0.0%	36.4%	28.9%
•Total	31.3%	41.7%	33.3%	25.0%	31.6%	32.1%

Recommendation

The current actuarial assumption is that 55% of retirees will elect to participate in the postemployment health care plan at retirement.

We have considered the observed experience, but also the small number of eligible employees retiring each year. We've also considered the sensitivity of valuation results to this assumption, and so recommend the following rates:

Recommended rates of postemployment healthcare participation for employees retiring:	
After eligibility for a ARRC premium subsidy	45%
Before eligibility for a ARRC premium subsidy	35%

Disabilities

We do not recommend any change to the current assumption that 85% of disabled employees will elect to participate in the plan.

SECTION 4

POST RETIREMENT HEALTH CARE PARTICIPATION

Continuation of Participation at Age 65

Many retirees elect to participate in employer postemployment healthcare plans, even though they might be quite costly, because there are currently few alternatives for retirees prior to Medicare eligibility. Upon reaching age 65, some plan participants may elect to drop plan coverage and rely solely on Medicare or less expensive Medicare Advantage plans.

Below we have analyzed rates of continuation of coverage at age 65.

Continuation of Post Retirement Health Care Coverage for Age 65 Retirees

	Study Year					Total
	2011	2012	2013	2014	2015	
■ Covered retirees age 64 in previous OPEB valuation	1	1	4	2	8	16
■ Number dropping coverage at age 65	0	1	4	0	3	8
■ Rate of coverage continuation at age 65	100.0%	0.0%	0.0%	100.0%	62.5%	50.0%

Recommendation

The current actuarial assumption is that 90% of retirees will elect to continue plan coverage after age 65.

We have considered the observed experience, but also the small number of eligible employees retiring each year. We've also considered the sensitivity of valuation results to this assumption, and so recommend that 55% of retirees be assumed to continue coverage at age 65.

SECTION 5

FUTURE SERVICE FOR LAID OFF PARTICIPANTS

Background

The current actuarial assumptions for the Pension and Post Retirement Health Care plans are inconsistent in their treatment of laid off participants.

In the retirement plan, layoffs are treated exactly the same as active employees, assuming they will remain employed in the future, earning a full year of credited service each year and receiving pay increases exactly the same as active employees. We believe this overstates retirement plan liabilities.

In the Post Retirement Health Care plan, 50% of laid-off employees are assumed to return to active employment and 50% are assumed to terminate before being eligible for benefits. We believe this likely understates plan liabilities, especially when used in conjunction with termination rates which have been developed on a combined basis for active and laid off employees.

All of the data for the actuarial valuation is measured on January 1 each year. Review of the data shows, not surprisingly, that the longer an employee's service, the less likely they are to be on layoff.

Years of service	Number of Employees with Status:			Percentage of Employees with Status	
	Active	Layoff	Total	Active	Layoff
0-1	178	163	341	52%	48%
1-2	147	103	250	59%	41%
2-3	193	79	272	71%	29%
3-4	182	58	240	76%	24%
4-5	203	36	239	85%	15%
5-9	985	137	1,122	88%	12%
10-14	714	47	761	94%	6%
15-19	340	22	362	94%	6%
20-24	269	17	286	94%	6%
25-30	194	2	196	99%	1%
Grand Total	3,405	664	4,069	84%	16%

SECTION 5

FUTURE SERVICE FOR LAID OFF PARTICIPANTS

Analysis

Due to employment seasonality, the status as of January 1 is not necessarily a good indicator of the benefits an employee will ultimately earn. To better estimate this, we calculated the amount of credited service laid off employees earned in future years, during the study period. We averaged the results separately by the number of years they remained in the data as active or laid off employees, after the first year in which they were listed as laid off. The results showed no consistent difference by number of years.

Years in Study as Active or Layoff after first layoff year	Average Credited Service earned per year after layoff	Number of Employees Counted
1	0.71	66
2	0.65	34
3	0.67	27
4	0.79	42
5	0.74	72
Total	0.72	241

Recommendation

We recommend the assumption regarding laid off employees be changed to:

- Pension Plan: Laid off employees are assumed to earn 0.75 years of credited service in all future years
- PRHC Plan:
 - Eliminate current assumption that $\frac{1}{2}$ of laid off employees return to active status.
 - Laid off employees are assumed to earn 0.75 years of vesting service in all future years.

SECTION 6

RETIREMENT

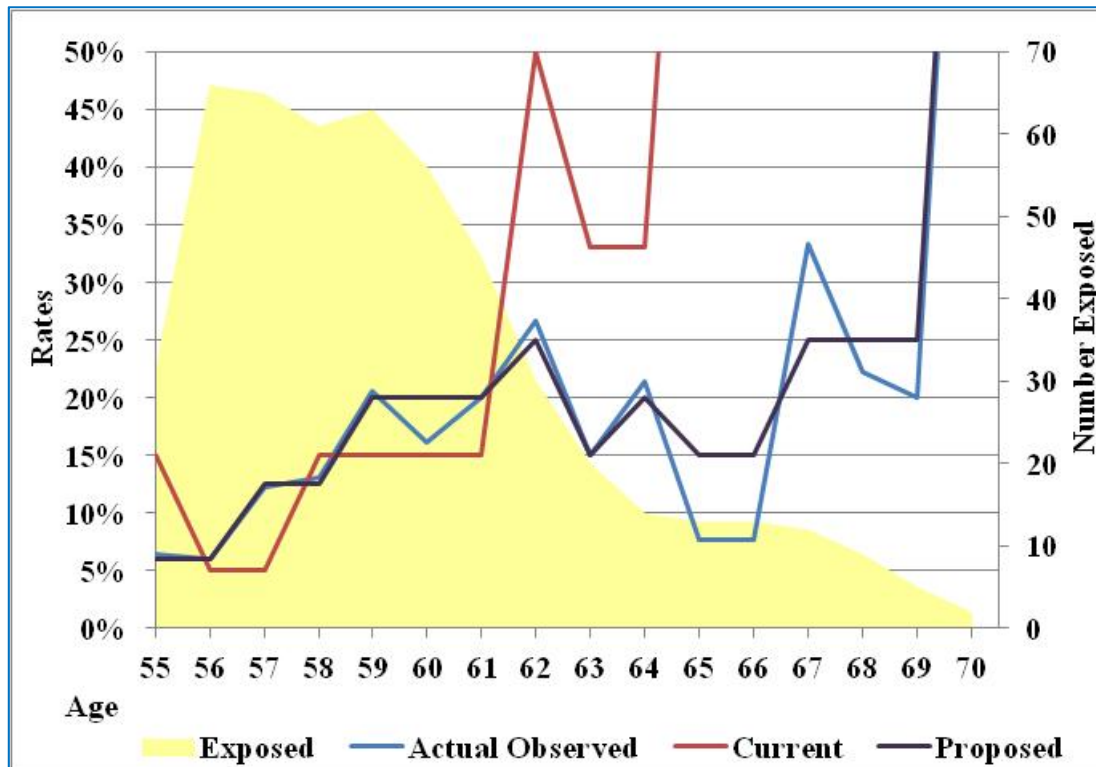
Results

The chart below shows the average retirement rates observed for participants grouped by age. The blue line shows the actual rates observed in the data while the black line plots our recommended assumption. The red line illustrates the current assumption. The

yellow area behind the lines shows the number of “exposures” in the study and is read on the right-hand axis. This is the number of participants at each age whose retirement rates we analyzed, counted as 1 exposure for each year in the study. The larger the exposure, the more reliable the data is considered.

The observed rates are similar to the current rates during the period of time when most employees retire – ages 55 to 62, with the exception of the first year of eligibility. However, for later years the observed rates are much lower than current assumptions, indicating that a portion of employees work longer than would be predicted by current rates.

Average Retirement Rates By Age

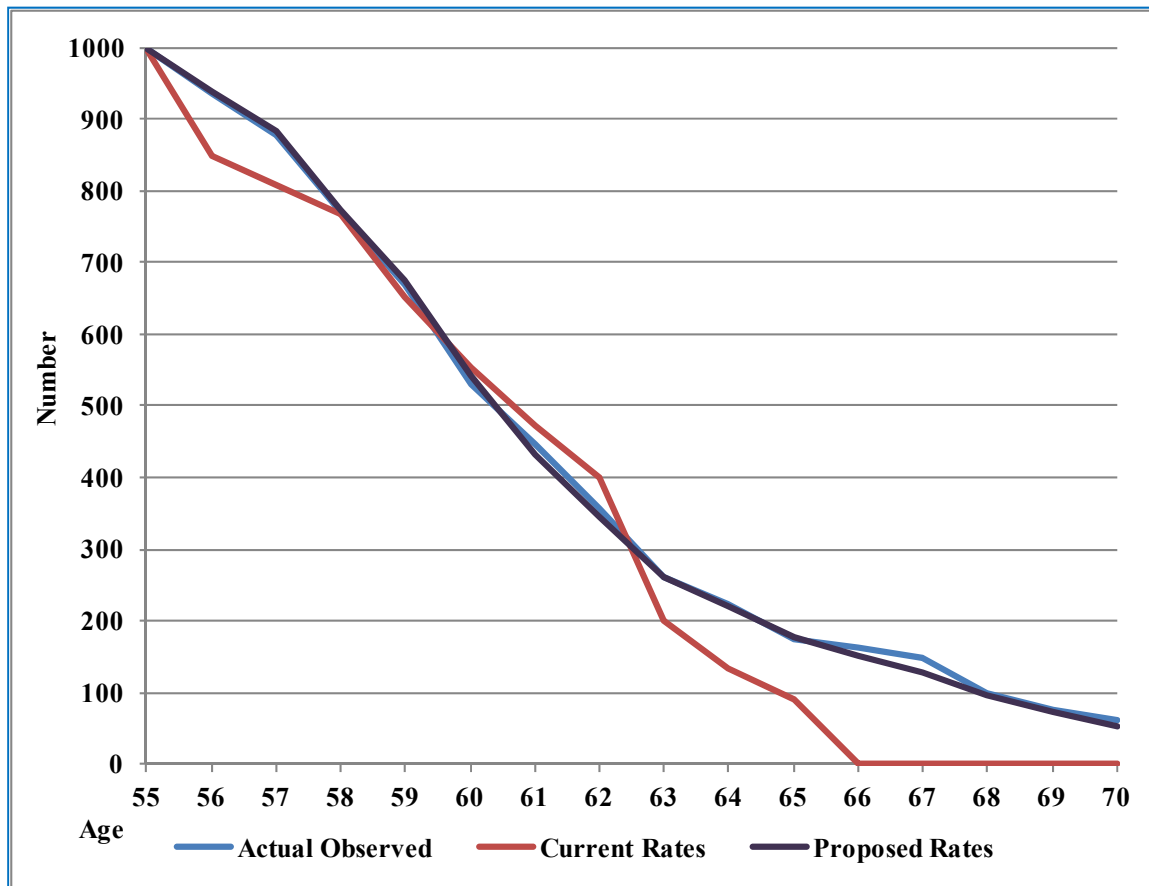


SECTION 6

RETIREMENT

Retirement rates can also be compared by calculating their effect over future years on a group of employees all age 55. The following chart shows the number who would remain employed at each age in the future out of an initial group of 1000 active employees age 55 if the current retirement rates applied, and also based on the observed rates and our recommended rates.

Number of Employees Remaining Each Future Year



SECTION 6

RETIREMENT

Proposed Retirement Rates

The following table details the observed and our proposed retirement rates.

Age	Observed Rate	Current Assumption	Proposed Assumption
55	6.45%	15.00%	6.00%
56	6.06%	5.00%	6.00%
57	12.31%	5.00%	12.50%
58	13.11%	15.00%	12.50%
59	20.63%	15.00%	20.00%
60	16.07%	15.00%	20.00%
61	20.00%	15.00%	20.00%
62	26.67%	50.00%	25.00%
63	15.00%	33.00%	15.00%
64	21.43%	33.00%	20.00%
65	7.69%	100.00%	15.00%
66	7.69%	100.00%	15.00%
67	33.33%	100.00%	25.00%
68	22.22%	100.00%	25.00%
69	20.00%	100.00%	25.00%
70	100.00%	100.00%	100.00%

SECTION 7

EMPLOYMENT TERMINATION

Results

We examined the observed termination rates in the data when grouped by age, by years of service, and also grouped by service for the first 5 years and by age thereafter. We found that grouping results by service best predicted the observed experience, and grouping by age was the worst predictor. Therefore we recommend using termination rates based on years of service.

The chart below shows the average termination rates observed for participants grouped by years of service. All employees coded as either active or layoff status in the data (as of January 1 each year) were considered active participants. The blue line shows the actual rates observed in the data while the black line plots our recommended assumption. The red line illustrates the current assumption.

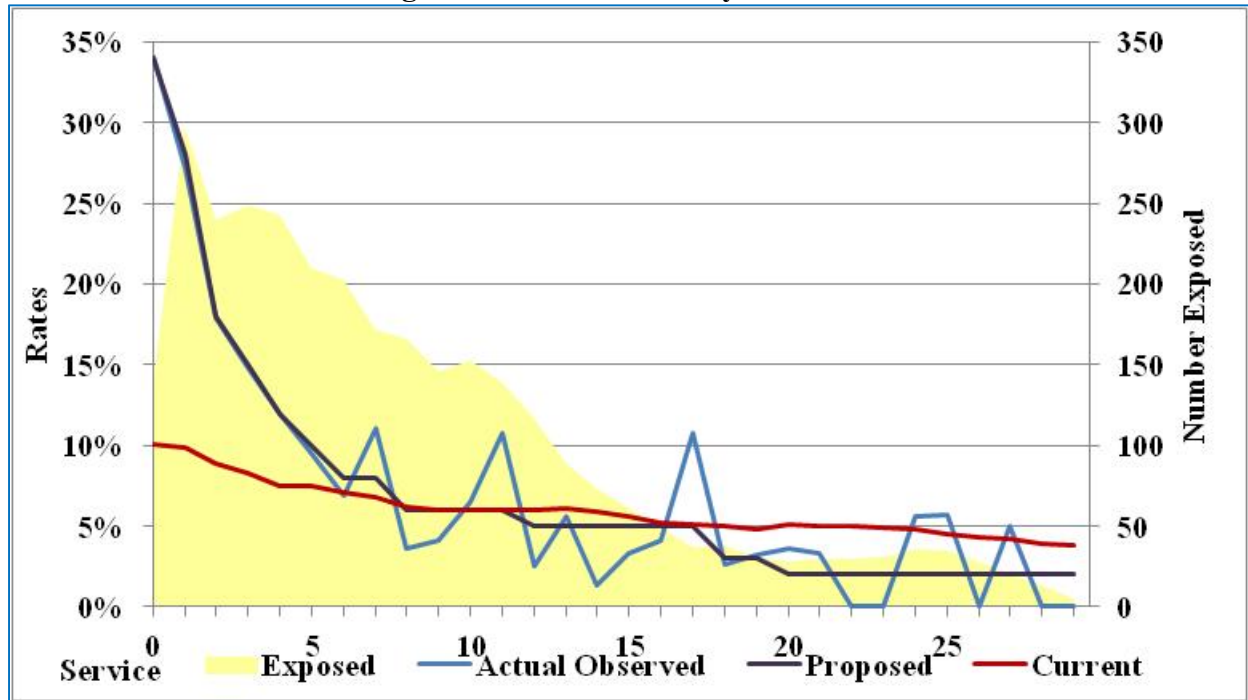
The yellow area behind the lines shows the number of “exposures” in the study and is read on the right-hand axis. This is the number of participants at each service year whose termination rates we analyzed, counted as 1 exposure for each year in the study. The larger the exposure, the more reliable the data is considered.

The observed rates are similar to the current rates during years 7 to 17. However, for earlier years, the observed rates are higher than current assumptions and in later years they are lower. This difference can be attributed in large part due to the current rates being based on age rather than service.

SECTION 7

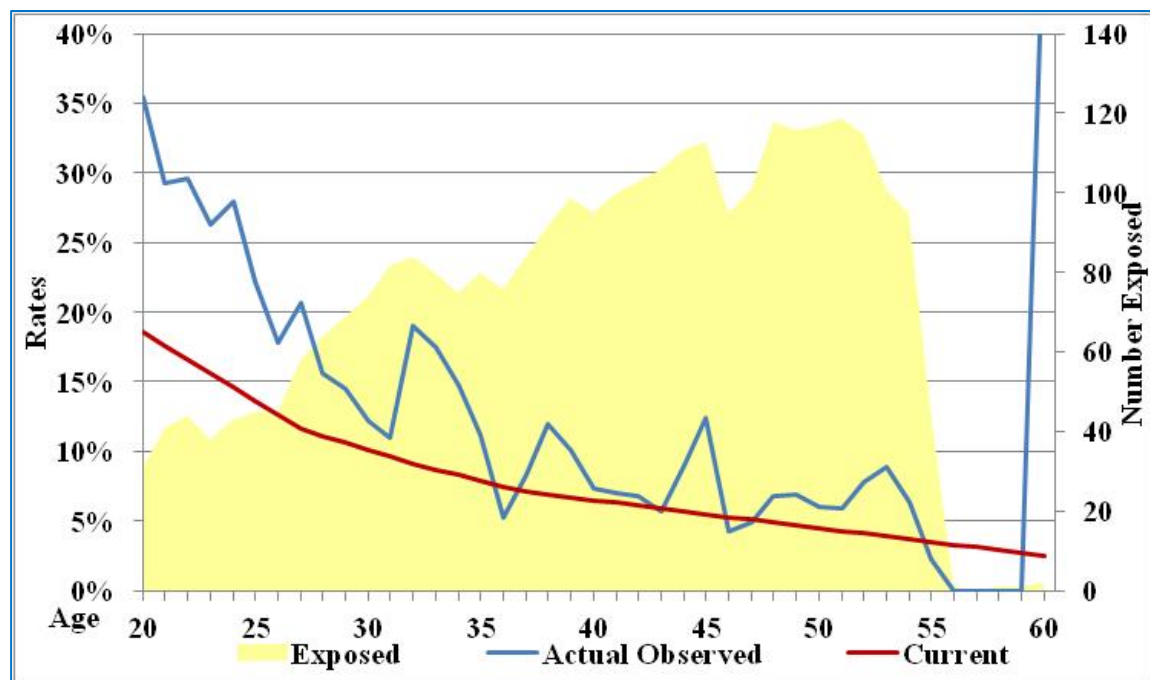
EMPLOYMENT TERMINATION

Average Termination Rates by Service



For illustration, following is the comparison of actual observed termination rates compared to the current assumptions, when grouped by age. You can see that the observed rates are higher than assumed for employees at younger ages.

Average Termination Rates by Age

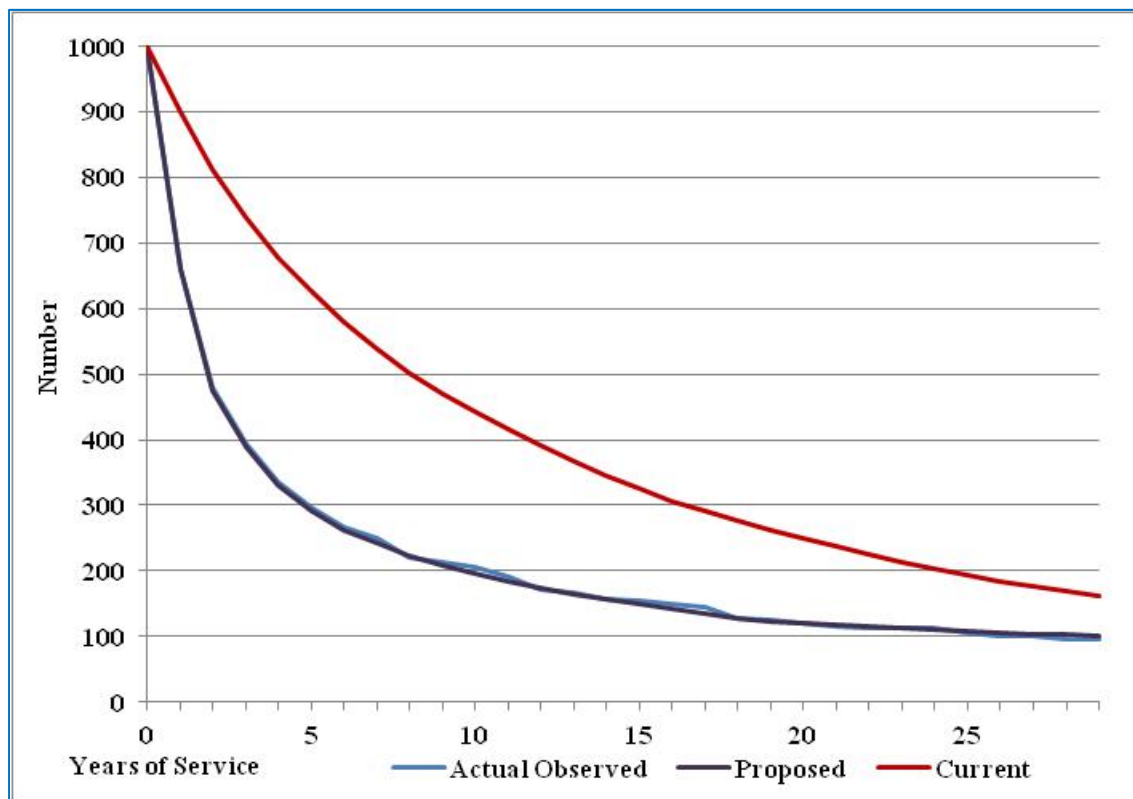


SECTION 7

EMPLOYMENT TERMINATION

Termination rates can also be compared by calculating their effect over future years on a group of newly hired employees. The following chart shows the number who would remain employed at each year in the future out of an initial group of 1000 active employees if the current termination rates applied, and also based on the observed rates and our recommended rates.

Number of Employees Remaining Each Future Year



SECTION 7

EMPLOYMENT TERMINATION

Proposed Termination Rates

The following table details the observed and our proposed termination rates. Note that termination rates are used in the actuarial valuation only prior to retirement eligibility.

Service	Observed Rate	Previous Assumption	Proposed Assumption
0	34.07%	10.05%	34.00%
1	27.18%	9.83%	28.00%
2	17.92%	8.92%	18.00%
3	14.86%	8.30%	15.00%
4	11.93%	7.52%	12.00%
5	9.52%	7.46%	10.00%
6	6.90%	7.13%	8.00%
7	11.05%	6.78%	8.00%
8	3.61%	6.18%	6.00%
9	4.11%	5.97%	6.00%
10	6.54%	6.00%	6.00%
11	10.79%	6.03%	6.00%
12	2.56%	5.98%	5.00%
13	5.62%	6.05%	5.00%
14	1.37%	5.94%	5.00%
15	3.28%	5.57%	5.00%
16	4.08%	5.23%	5.00%
17	10.81%	5.08%	5.00%
18	2.63%	4.97%	3.00%
19	3.23%	4.82%	3.00%
20	3.57%	5.09%	2.00%
21	3.33%	5.02%	2.00%
22	0.00%	5.05%	2.00%
23	0.00%	4.89%	2.00%
24	5.56%	4.76%	2.00%
25	5.71%	4.49%	2.00%
26	0.00%	4.33%	2.00%
27	5.00%	4.20%	2.00%
28	0.00%	3.96%	2.00%
29	0.00%	3.78%	2.00%
30+	0.00%	0.00%	2.00%

SECTION 8

IMPACT OF RECOMMENDATIONS

The following table illustrates the impact of the recommended changes in actuarial assumptions as compared to the current assumptions. The first column shows actual valuation results as of January 1, 2015. The next columns show results that would have been calculated had only one actual assumption been changed to the recommended. The final column shows the impact of changing to all of the recommended assumptions.

Valuation Results as of January 1, 2015 Showing Effect of Recommended Changes Projected Unit Credit Funding Method (Amounts in \$000's)

Assumption Changed:	Current	Salary	Disability	Participation	Layoff Service	Retirement	Termination	All
Present Value of All Projected Benefits								
■ Pension								
• Actives	141,932	146,905	145,664	141,932	140,534	140,551	144,754	140,715
• Inactives	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>
• Total	197,246	202,219	200,979	197,246	195,849	195,866	200,068	196,029
% Change Actives		3.5%	2.6%	0.0%	-1.0%	-1.0%	2.0%	-0.9%
% Change Total		2.5%	1.9%	0.0%	-0.7%	-0.7%	1.4%	-0.6%
■ OPEB								
• Actives	24,399	24,399	21,026	18,036	25,515	23,810	24,621	14,276
• Inactives	<u>3,673</u>	<u>3,673</u>	<u>3,673</u>	<u>3,340</u>	<u>3,673</u>	<u>3,673</u>	<u>3,673</u>	<u>3,340</u>
• Total	28,072	28,072	24,699	21,376	29,188	27,483	28,295	17,616
% Change Actives		0.0%	-13.8%	-26.1%	4.6%	-2.4%	0.9%	-41.5%
% Change Total		0.0%	-12.0%	-23.9%	4.0%	-2.1%	0.8%	-37.2%
■ Total	225,318	230,291	225,678	218,622	225,037	223,349	228,363	213,645
% Change Total		2.2%	0.2%	-3.0%	-0.1%	-0.9%	1.4%	-5.2%

SECTION 8

IMPACT OF RECOMMENDATIONS

Valuation Results as of January 1, 2015 Showing Effect of Recommended Changes Projected Unit Credit Funding Method (Continued) (Amounts in \$000's)

Assumption Changed:	Current	Salary	Disability	Participation	Layoff Service	Retirement	Termination	All
Actuarial Accrued Liability and Unfunded Liability								
■ Pension								
• Actives	90,281	91,566	91,339	90,281	89,802	87,549	90,929	88,582
• Inactives	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>
• Total	145,595	146,880	146,653	145,595	145,117	142,863	146,244	143,896
% Change Actives		1.4%	1.2%	0.0%	-0.5%	-3.0%	0.7%	-1.9%
% Change Total		0.9%	0.7%	0.0%	-0.3%	-1.9%	0.4%	-1.2%
• Assets	<u>139,734</u>	<u>139,734</u>	<u>139,734</u>	<u>139,734</u>	<u>139,734</u>	<u>139,734</u>	<u>139,734</u>	<u>139,734</u>
• UAAL	5,861	7,146	6,919	5,861	5,383	3,129	6,510	4,162
■ OPEB								
• Actives	14,412	14,412	12,250	10,632	15,036	13,766	14,764	8,224
• Inactives	<u>3,673</u>	<u>3,673</u>	<u>3,673</u>	<u>3,340</u>	<u>3,673</u>	<u>3,673</u>	<u>3,673</u>	<u>3,340</u>
• Total	18,086	18,086	15,923	13,972	18,709	17,439	18,438	11,564
% Change Actives		0.0%	-15.0%	-26.2%	4.3%	-4.5%	2.4%	-42.9%
% Change Total		0.0%	-12.0%	-22.7%	3.4%	-3.6%	1.9%	-36.1%
• Assets	<u>42,809</u>	<u>42,809</u>	<u>42,809</u>	<u>42,809</u>	<u>42,809</u>	<u>42,809</u>	<u>42,809</u>	<u>42,809</u>
• UAAL	(24,724)	(24,724)	(26,886)	(28,837)	(24,100)	(25,370)	(24,372)	(31,245)
■ Tot. AAL	163,681	164,966	162,576	159,567	163,826	160,302	164,682	155,460
% Change Total		0.8%	-0.7%	-2.5%	0.1%	-2.1%	0.6%	-5.0%
• Tot UAAL	(18,862)	(17,578)	(19,967)	(22,976)	(18,717)	(22,241)	(17,862)	(27,082)

Assumption Changed:	Current	Salary	Disability	Participation	Layoff Service	Retirement	Termination	All
Annual Cost (ARC/ADC)								
■ Pension	3,571	3,999	3,746	3,571	3,462	3,404	3,480	3,618
% Increase (Decrease)		12.0%	4.9%	0.0%	-3.1%	-4.7%	-2.6%	1.3%
■ OPEB¹	(3,727)	(3,727)	(4,425)	(4,974)	(3,543)	(3,900)	(3,735)	(5,806)
% Increase (Decrease)		0.0%	-18.7%	-33.5%	4.9%	-4.6%	-0.2%	-55.8%
■ Total¹	(156)	272	(680)	(1,403)	(81)	(496)	(255)	(2,188)

¹ Limited to \$0

SECTION 8

IMPACT OF RECOMMENDATIONS

The following table illustrates the impact of the recommended changes in actuarial assumptions as compared to the current assumptions. The first column shows actual valuation results as of January 1, 2015 as if the Entry Age funding method had been used. The next columns show results that would have been calculated had only one actual assumption been changed to the recommended. The final column shows the impact of changing to all of the recommended assumptions.

Valuation Results as of January 1, 2015 Showing Effect of Recommended Changes Entry Age Funding Method (Amounts in \$000's)

Assumption Changed:	Current	Salary	Disability	Participation	Layoff Service	Retirement	Termination	All
Present Value of All Projected Benefits								
■ Pension								
• Actives	141,932	146,905	145,664	141,932	140,534	140,551	144,754	140,715
• Inactives	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>
• Total	197,246	202,219	200,979	197,246	195,849	195,866	200,068	196,029
% Change Actives		3.5%	2.6%	0.0%	-1.0%	-1.0%	2.0%	-0.9%
% Change Total		2.5%	1.9%	0.0%	-0.7%	-0.7%	1.4%	-0.6%
■ OPEB								
• Actives	24,399	24,399	21,026	18,036	25,515	23,810	24,621	14,276
• Inactives	<u>3,673</u>	<u>3,673</u>	<u>3,673</u>	<u>3,340</u>	<u>3,673</u>	<u>3,673</u>	<u>3,673</u>	<u>3,340</u>
• Total	28,072	28,072	24,699	21,376	29,188	27,483	28,295	17,616
% Change Actives		0.0%	-13.8%	-26.1%	4.6%	-2.4%	0.9%	-41.5%
% Change Total		0.0%	-12.0%	-23.9%	4.0%	-2.1%	0.8%	-37.2%
■ Total	225,318	230,291	225,678	218,622	225,037	223,349	228,363	213,645
% Increase (Decr.)		2.2%	0.2%	-3.0%	-0.1%	-0.9%	1.4%	-5.2%

SECTION 8

IMPACT OF RECOMMENDATIONS

Valuation Results as of January 1, 2015 Showing Effect of Recommended Changes Entry Age Funding Method

(Continued) (Amounts in \$000's)

Assumption Changed:	Current	Salary	Disability	Participation	Layoff Service	Retirement	Termination	All
Actuarial Accrued Liability and Unfunded Liability								
■ Pension								
• Actives	102,315	101,544	104,632	102,315	101,478	99,128	107,557	99,070
• Inactives	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>	<u>55,314</u>
• Total	157,629	156,858	159,947	157,629	156,793	154,442	162,871	154,384
% Change Actives		-0.8%	2.3%	0.0%	-0.8%	-3.1%	5.1%	-3.2%
% Change Total		-0.5%	1.5%	0.0%	-0.5%	-2.0%	3.3%	-2.1%
• Assets	<u>139,734</u>	<u>139,734</u>	<u>139,734</u>	<u>139,734</u>	<u>139,734</u>	<u>139,734</u>	<u>139,734</u>	<u>139,734</u>
• UAAL	17,895	17,124	20,213	17,895	17,059	14,708	23,138	14,651
■ OPEB								
• Actives	16,532	16,013	14,531	11,989	17,167	15,533	18,156	9,893
• Inactives	<u>3,673</u>	<u>3,673</u>	<u>3,673</u>	<u>3,340</u>	<u>3,673</u>	<u>3,673</u>	<u>3,673</u>	<u>3,340</u>
• Total	20,206	19,686	18,205	15,329	20,841	19,206	21,830	13,233
% Change Actives		-3.1%	-12.1%	-27.5%	3.8%	-6.0%	9.8%	-40.2%
% Change Total		-2.6%	-9.9%	-24.1%	3.1%	-4.9%	8.0%	-34.5%
• Assets	<u>42,809</u>	<u>42,809</u>	<u>42,809</u>	<u>42,809</u>	<u>42,809</u>	<u>42,809</u>	<u>42,809</u>	<u>42,809</u>
• UAAL	(22,604)	(23,123)	(24,605)	(27,481)	(21,969)	(23,603)	(20,980)	(29,576)
■ Total AAL	177,835	176,544	178,151	172,958	177,633	173,648	184,701	167,618
% Increase (Decr.)		-0.7%	0.2%	-2.7%	-0.1%	-2.4%	3.9%	-5.7%
• Tot UAAL	(4,709)	(5,999)	(4,392)	(9,585)	(4,910)	(8,895)	2,158	(14,925)

Assumption Changed:	Current	Salary	Disability	Participation	Layoff Service	Retirement	Termination	All
Annual Cost (ARC/ADC)								
■ Pension	3,887	4,377	4,128	3,887	3,744	3,721	3,866	3,862
% Increase (Decr.)		12.6%	6.2%	0.0%	-3.7%	-4.3%	-0.5%	-0.6%
■ OPEB²	(3,383)	(3,458)	(4,046)	(4,754)	(3,174)	(3,613)	(3,268)	(5,546)
% Increase (Decr.)		-2.2%	-19.6%	-40.5%	6.2%	-6.8%	3.4%	-63.9%
■ Total²	504	920	82	(867)	569	108	598	(1,685)

² Limited to \$0