



TO: Members of the Legislative Commission on Pensions and Retirement
FROM: Lawrence A. Martin, Executive Director *LAM*
RE: Duluth Teachers Retirement Fund Association 2006-2011 Experience Study and Actuarial Assumption Revision Recommendations
DATE: July 23, 2012

Introduction

On July 20, 2012, the Executive Director of the Duluth Teachers Retirement Fund Association (DTRFA), Jay Stoffel, contacted the Commission office to indicate that his board had recently approved a number of actuarial assumption requests based on its July 2006-July 2011 experience study and requested that the proposed assumption changes be included in the upcoming Commission meeting agenda. The DTRFA provided electronically a copy of the experience study to the Commission office on July 20, 2012.

DTRFA 2006-2011 Experience Study

The July 1, 2006 – July 1, 2011 experience study prepared by The Segal Company, reportedly approved by the DTRFA board of trustees on July 19, 2012, and provided by DTRFA to the Commission office on July 20, 2012, reviewed the experience study of the retirement plan relating to the economic assumptions of inflation (non-statutory assumption), investment return (statutory assumption), salary scale (statutory assumption), payroll growth rate (statutory assumption), administrative expenses (non-statutory assumption), and relating to the demographic assumptions of healthy mortality, disabled mortality, turnover, retirement, disability incidence, percent married, and age of spouse (all non-statutory assumptions).

The experience study included recommendations by the preparing actuary for changes in inflation, investment return, salary scale, and payroll growth, healthy mortality, disability mortality, turnover, and retirement. The statutory investment return assumption was changed in Laws 2012, Chapter 286, Article 1, Section 2, and is in accord with the recommendation of the experience study for an assumption within the reasonable range of 7.5% and 8.00%. The statutory salary scale and payroll growth assumptions could be revised to implement the experience study recommendations by legislative action in 2013. The inflation actuarial assumption is a building block assumption used in formulating the investment return, salary scale, and payroll growth statutory assumptions, but does not operate independently, and does not require Commission action.

The demographic actuarial assumption recommendations available for Commission action are set forth in **Motion LCPR12-M9**, attached.

Discussion and Analysis

The DTRFA 2006-2011 Experience Study and actuarial assumption change recommendations raise various issues that the Commission may wish to consider and discuss, as follows:

1. Late DTRFA Experience Study and Late Study Submission. Although DTRFA requested Commission approval to have an experience study prepared at the same time as the other retirement plans with experience study results scheduled for the July 30, 2012, meeting and indicated that its study would be ready in late spring, DTRFA did not receive the experience study until June 11, 2012. Although the retirement plan had the study for more than one month, the plan administration did not submit the report to the Commission until July 20, 2012, arguing that its board had not had a chance to review the document until its most recent board meeting, which was delayed because of local flooding problems. The other retirement plan practice of all of the other plans is to submit to the Commission the experience study at the same time as its board receives it, with any corrections or board requested changes or additions submitted subsequently.
2. Experience Study Lacked Certification of Minnesota Statutes and Commission Standards Compliance. The DTRFA experience study includes a certification by the preparing actuary that it complies with the American Association of Actuaries and the Actuarial Standards Board, but does not include a certification that it was prepared in conformance with Minnesota Statutes, Section 356.215, and with the Standards for Actuarial Work promulgated by the Commission. In this failure, the DTRFA experience study is similar to the other experience studies scheduled for July 30, 2012.

3. Experience Study Omission of Required Year-by-Year Experience Results and Expected Results. The Commission's Standards for Actuarial Work require that actual experience and expected experience be compared year-by-year as well as the entire period, so that one aberrant year doesn't skew the analysis of the accuracy of the current assumptions. The DTRFA experience study generally lacked year-by-year results and where year-by-year results were presented, the presentation was only done graphically, and not numerically.
4. Experience Study Lacked Analysis of Total Set of Assumptions. The DTRFA experience study did not consider all of the current actuarial assumptions, as required by both statute and the Commission's Standards for Actuarial Work. For some omitted assumptions, the actual-compared-to-predicted analysis indicates either that sufficient data to conduct the comparison was lacking or that the magnitude of the impact of the assumptions was so great that no change was recommended. The absence of data or the size of the difference between expected and actual experience are troubling as the basis for not considering the assumption. In this analysis omission, the DTRFA experience study is similar to the other experience studies scheduled for consideration during the July 30, 2012, Commission meeting.
5. Static Limited Expected Mortality Improvement DTRFA Mortality Table Recommendation. The DTFRA experience study was prepared by The Segal Company, the third actuarial firm to prepare an experience study for review by the Commission on July 30, 2012 (the other two are Mercer for six of the retirement plans and Gabriel, Roeder, Smith for the St. Paul Teachers Retirement Fund Association.) Mercer is generally recommending a generational mortality assumption that includes full future projected mortality improvements. Gabriel, Roeder, Smith is recommending a static mortality assumption with projected improvements to 2020. The Segal Company is recommending a static mortality table with projected improvements only to 2012. Three actuaries and a result of three different approaches to mortality may be of concern and may require some additional consideration.

_____ moves that the Legislative Commission on Pensions and Retirement approve the following replacement actuarial assumptions for the Duluth Teachers Retirement Fund Association, beginning with the July 1, 2012, actuarial valuation, under Minnesota Statutes, Section 356.215, Subdivision 18:

Mortality Rates:

Post-Retirement Mortality for Healthy Lives

RP-2000 annuitant mortality table with application on a generational basis from 2012

Males: set back three years

Females: set back three years

Post-Retirement Mortality for Disabled Lives

Disabled eligible for Social Security disability – ERISA Section 4044 table for ages younger than age 55, grading into the RP-2000 annuitant mortality table with application on a generational basis from 2012

Males: set back three years

Females: set back three years

Pre-Retirement Mortality for Healthy Lives

RP-2000 annuitant mortality table with application on a generational basis from 2012

Males: set back three years

Females: set back three years

Retirement Rates:

By Age; Old Plan and Tier 1 Eligible for Rule of 90		By Age; Old Plan and Tier 1 Not Eligible for Rule of 90		By Age; Tier 2 Members	
Age	Retirement Rate	Age	Retirement Rate	Age	Retirement Rate
55	30.00%	Under 56	7.50%	Under 56	7.50%
56	30.00%	56	7.50%	56	7.50%
57	30.00%	57	7.50%	57	7.50%
58	30.00%	58	15.00%	58	7.50%
59	30.00%	59	15.00%	59	7.50%
60	30.00%	60	25.00%	60	15.00%
61	30.00%	61	25.00%	61	15.00%
62	30.00%	62	25.00%	62	15.00%
63	30.00%	63	30.00%	63	25.00%
64	35.00%	64	35.00%	64	30.00%
65	35.00%	65	35.00%	65	30.00%
66	40.00%	66	40.00%	66	40.00%
		67	40.00%	67	40.00%
		68	50.00%	68	50.00%
		69	50.00%	69	50.00%
		70 and over	100.00%	70 and over	100.00%

Termination from Active Status:

Years of Service	Select Withdrawal Rates
1	45%
2	20%
3	12%