

January 15, 2013

Board of Trustees
Teachers' Retirement System
of The State of Illinois
2815 West Washington Street
Springfield, Illinois 62702

Ladies and Gentlemen:

Attached are the additional disclosures suggested by the State actuary. We are available to answer questions concerning these disclosures.

Sincerely,



Larry Langer, FCA, ASA, EA, MAAA
Principal, Retirement



Paul R. Wilkinson, ASA, EA, MAAA
Director, Consulting Actuary

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Attachments

SECTION IX**STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS**

(Adopted effective June 30, 2012 except as otherwise noted.)

ASSUMPTIONS

INTEREST RATE: 8.0% per annum, compounded annually. The interest rate assumption includes the following components: inflation 3.25%, and real rate of return 4.75%.

SEPARATIONS FROM ACTIVE SERVICE (OTHER THAN SERVICE RETIREMENT) AND SALARY INCREASES: Representative values of the assumed rates of separation, annual rates of salary increase, are shown in the following table:

Age	Annual Rates* of					
	Termination		Death**	Disability***	Salary Increase	Merit or Seniority Component
	Non-vested	Vested				
<u>Males</u>						
20	12.0	8.0	.023	.029	10.15%	6.15%
25	7.0	6.0	.029	.029	9.25%	5.25%
30	8.6	3.7	.035	.026	7.45%	3.45%
40	11.1	1.5	.061	.051	6.25%	2.25%
50	12.0	1.4	.122	.094	5.00%	1.00%
55	16.0	4.0	.183	.111	5.00%	1.00%
60	21.0	4.0	.303	.170	5.00%	1.00%
65	21.0	4.0	.531	.510	5.00%	1.00%
70	—	—	—	—	—	—
<u>Females</u>						
20	18.0	10.0	.011	.045	10.15%	6.15%
25	7.8	9.0	.011	.045	9.25%	5.25%
30	10.6	6.0	.013	.117	7.45%	3.45%
40	10.0	2.2	.031	.162	6.25%	2.25%
50	10.0	1.4	.069	.172	5.00%	1.00%
55	15.0	3.1	.116	.197	5.00%	1.00%
60	14.0	4.0	.219	.144	5.00%	1.00%
65	40.0	4.0	.395	.287	5.00%	1.00%
70	—	—	—	—	—	—

* Rates of separation are rates per 100 participants. For example, 7% of all 25 year-old actively employed non-vested male members (i.e., 7.0 per 100) are assumed to terminate employment each year for reasons other than death, disability, or service retirement.

** Beginning July 1, 2012, projected mortality improvements are phased in with the Society of Actuaries Mortality Projection Scale AA. The table above reflects this phase in, and shows representative values as of July 1, 2012.

*** A 2% load was placed on disability benefits to account for Occupational Disability benefits being greater than standard disability.

The basic salary increase assumption averages 5.75% per annum plus an additional 0.25% per annum to cover employment type and status changes, for a composite increase that averages approximately 6.0% per annum. The 6.0% salary increase assumption includes the following components:

- Inflation of 3.25% and Real wage growth (productivity) of 0.75%
- Merit or seniority (includes employment type and status changes): ranges from 6.15 % at age 20 to 1.00% at age 50 and above and averages 2.00%.
- Increase on payroll and account balances to account for delay: 4% (based on the increase in 2012 payroll from the prior year to the current year)

NEW MEMBER PROFILE

Distribution of New Entrants is as follows (based on 6/30/2009-6/30/2011 new hire counts):

Age Group	Full Time/Part Time			Hourly/Substitute		
	Males	Females	Total	Males	Females	Total
20 – 24	5.4%	26.2%	31.6%	8.8%	16.8%	25.6%
25 – 29	7.7%	24.6%	32.3%	8.4%	14.7%	23.1%
30 – 34	3.6%	10.3%	13.9%	2.9%	5.7%	8.6%
35 – 39	1.8%	5.6%	7.4%	2.7%	5.9%	8.6%
40 – 44	1.4%	3.9%	5.3%	3.7%	8.4%	12.1%
45 – 49	0.8%	3.3%	4.1%	2.6%	5.5%	8.1%
50 – 54	0.6%	2.0%	2.6%	1.8%	3.6%	5.4%
55 – 59	0.6%	1.3%	1.9%	1.6%	2.6%	4.2%
60 – 64	0.3%	0.4%	0.7%	1.3%	1.6%	2.9%
65 – 69	0.1%	0.1%	0.2%	0.5%	0.5%	1.0%
70	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>	<u>0.2%</u>	<u>0.2%</u>	<u>0.4%</u>
Total	22.3%	77.7%	100.0%	34.5%	65.5%	100.0%

Service Credit Earned in Each Future Year (Full Time/Part Time based on 6/30/2009-6/30/2011 new hire service credits and Hourly/Substitutes based on 6/30/2011 new hire service credits):

Age Group	Full Time/Part Time			Hourly/Substitute		
	Males	Females	Total	Males	Females	Total
20 - 24	0.917	0.923	0.922	0.311	0.336	0.335
25 - 29	0.947	0.934	0.937	0.309	0.298	0.298
30 - 34	0.909	0.915	0.913	0.340	0.276	0.297
35 - 39	0.930	0.916	0.920	0.288	0.301	0.300
40 - 44	0.931	0.901	0.908	0.252	0.308	0.298
45 - 49	0.900	0.905	0.904	0.304	0.317	0.312
50 - 54	0.888	0.928	0.919	0.321	0.338	0.334
55 - 59	0.972	0.903	0.926	0.353	0.345	0.346
60 - 64	0.893	1.113	1.010	0.328	0.330	0.327
65 - 69	-	-	-	0.315	0.304	0.308
70	-	-	-	0.285	0.255	0.268
Average	0.928	0.924	0.924	0.313	0.315	0.314

NEW MEMBER PROFILE (continued)

Projected Annual Rate of Pay at 6/30/2012*

(for one year of service credit – Full Time/Part Time based on 6/30/2009-6/30/2011 new hire pay normalized to 6/30/2012 and Hourly/Substitutes based on 6/30/2011 new hire pay)

Age Group	Full Time/Part Time			Hourly/Substitute		
	Males	Females	Total	Males	Females	Total
20-24	\$ 46,349	\$ 45,029	\$ 45,254	\$ 17,475	\$ 18,053	\$ 17,893
25-29	\$ 47,771	\$ 48,290	\$ 48,167	\$ 17,467	\$ 17,374	\$ 17,407
30-34	\$ 55,110	\$ 52,482	\$ 53,163	\$ 17,704	\$ 16,908	\$ 17,155
35-39	\$ 57,001	\$ 54,980	\$ 55,472	\$ 16,839	\$ 16,595	\$ 16,652
40-44	\$ 64,467	\$ 55,424	\$ 57,812	\$ 16,616	\$ 15,919	\$ 16,075
45-49	\$ 68,190	\$ 55,885	\$ 58,286	\$ 16,348	\$ 16,192	\$ 16,227
50-54	\$ 74,055	\$ 56,203	\$ 60,323	\$ 16,806	\$ 16,281	\$ 16,434
55-59	\$ 68,428	\$ 68,443	\$ 68,438	\$ 16,095	\$ 16,233	\$ 16,180
60-64	\$ 77,237	\$ 58,749	\$ 66,672	\$ 15,935	\$ 16,183	\$ 16,067
65-69	\$ -	\$ 52,933	\$ 26,466	\$ 15,841	\$ 15,565	\$ 15,716
70	-	47,386	-	15,783	14,993	\$ 15,520
Total	\$ 52,582	\$ 49,509	\$ 50,195	\$ 17,074	\$ 16,989	\$ 17,014

* The rate of pay profile will increase 4.00% per annum. 3.25% of the increase is attributable to inflation and 0.75% to real wage growth.

METHODS

VALUATION COST METHOD: Projected unit credit cost method. Gains and losses are reflected in the unfunded pension benefit obligation. (Adopted effective June 30, 1989.)

PENSION BENEFIT OBLIGATION: The actuarial accrued liability (AAL) of the System was determined using the projected unit-credit actuarial cost method, and the AAL is equivalent to the Government Accounting Standards Board (GASB) Statement No. 5 pension benefit obligation (PBO). PBO is a measure of the actuarial present value (APV) as of the valuation date of credited projected benefits prorated on service, including an adjustment for the effects of projected salary increases estimated to be payable in the future. Significant actuarial assumptions used to determine the PBO as of June 30, 2012 include the following:

- (1) An assumed rate of return on the investment of present and future assets of 8.0% per annum, compounded annually.
- (2) Assumed projected annual salary increases ranging from 10.15% at age 20 to 5.00% at age 69, which reflect an allowance for inflation and merit or seniority increases.
- (3) Automatic annual post-retirement benefit increases equal to 3% of the member's current benefit.