
Accumulated Sick Leave
Conversion Credit Programs
Annual Actuarial Valuation
DECEMBER 31, 2005

PRESENTED TO THE WISCONSIN DEPARTMENT
OF EMPLOYEE TRUST FUNDS

GRS

Gabriel Roeder Smith & Company

June 8, 2006

Employee Trust Funds Board
Wisconsin Retirement System
801 West Badger Road
Madison, Wisconsin 55713-2526

Ladies and Gentlemen:

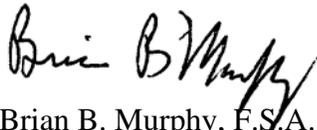
The results of the **Annual Actuarial Valuation** of benefit liabilities and costs of non-retired participants of the Accumulated Sick Leave Conversion Credit Programs are presented in this report.

The date of the valuation was **December 31, 2005**.

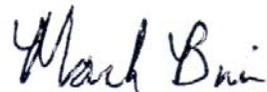
The valuation was based upon data, furnished by the Department of Employee Trust Funds, concerning retired and non-retired participants and pertinent financial information.

The valuation was completed in accordance with standards of practice prescribed by the Actuarial Standards Board and in conformance with Chapter 40 of the Wisconsin Statutes. To the best of our knowledge this report is complete and accurate, and the actuarial methods and assumptions produced results which are reasonable.

Respectfully submitted,



Brian B. Murphy, F.S.A.



Mark Buis, F.S.A.

BBM/MB:dm

Combined Results and Discussion

**ASLCC PROGRAM
BASE PLUS SUPPLEMENTAL
COMPUTED TOTAL EMPLOYER CONTRIBUTION RATES**

The financial objectives of the ASLCC Program are to establish and receive contributions to support benefits that will remain approximately level from year to year. Combined program valuation results since 1995 are presented below.

Valuation Date December 31	Base	Supplemental	Total	UAAL* Amortization Years
1996	1.8%	1.1%	2.9%	28
1997@#	1.8%	0.9%	2.7%	27
1998	1.9%	0.8%	2.7%	20
1999	1.8%	0.9%	2.7%	25
2000@	1.7%	1.0%	2.7%	24
2001	1.7%	1.1%	2.8%	24
2002	1.8%	1.2%	3.0%	23
2003@&	0.9%	0.5%	1.4%	22
2004	0.9%	0.4%	1.3%	21
2005	0.8%	0.4%	1.2%	20

* *Unfunded actuarial accrued liabilities*
 @ *Assumption change*
 # *Benefit change*
 & *Method change*

COMMENTS

- Based on the policy established at the June 2002 ETF Board meeting, the amortization period for unfunded actuarial accrued liabilities was closed. Therefore, the remaining period will decline one year at a time until the UAAL is fully amortized.
- The decrease in contribution rates shown above from 2002 to 2003 is primarily due to the issuance of Pension Obligation Bonds by the state of Wisconsin which paid off the majority of unfunded liabilities of the ASLCC Program.
- In computing the recommended rates in this report, we used the frozen initial liability (FIL) method. This method was used because the Pension Obligation Bond paid off unfunded liabilities for some, but not all employers, requiring separate contribution rates for some of the employers. This method is described further on page 12.

**ASLCC PROGRAM
SUMMARY OF PARTICIPANT DATA
DECEMBER 31, 2005**

Active Participants

	State Employees			Total
	(Non-University)	University	University Hospital	
Number	33,201	28,680	5,579	67,460
Annual Payroll	\$1,584,842,958	\$1,552,845,590	\$272,267,938	\$3,409,956,487
Accrued Unused Sick Days	2,828,597 days	2,649,423 days	208,325 days	5,686,345 days
Averages: Age	45.4 years	46.8 years	40.9 years	45.6 years
Service	13.1 years	11.9 years	8.3 years	12.2 years
Sick Leave Days	85.2 days	92.4 days	37.3 days	84.3 days

Retirees & Beneficiaries

	Rate Category		Total
	Without Medicare	With Medicare	
Number*	3,823	5,797	9,620
Monthly Premiums			
Total	\$3,314,622	\$3,278,026	\$6,592,648
Average	\$ 867.02	\$ 565.47	
Prior Year Average	\$ 821.03	\$ 572.05	

* Number count does not include 3,610 escrowed annuitants.

**ASLCC PROGRAM
SUMMARY OF ASSETS
DECEMBER 31, 2005**

	<u>Base Program</u>	<u>Supplemental Program</u>	<u>Total</u>
Beginning Balance	\$1,153,950,036	\$570,552,104	\$1,724,502,140
Adjustment	(216,689)	(70,097)	(286,786)
Adjusted Beginning Balance	<u>\$1,153,733,347</u>	<u>\$570,482,007</u>	<u>\$1,724,215,354</u>
Revenues			
Contributions	\$ 30,254,153	\$ 17,023,330	\$ 47,277,483
Investment Income	72,552,634	36,396,768	108,949,402
Total Revenues	<u>\$ 102,806,787</u>	<u>\$ 53,420,098</u>	<u>\$ 156,226,885</u>
Expenses			
Insurance Premiums	\$ 60,431,346	\$ 14,113,110	\$ 74,544,456
Administration	79,101	40,008	119,109
Total Expenses	<u>\$ 60,510,447</u>	<u>\$ 14,153,118</u>	<u>\$ 74,663,565</u>
Ending Balance - December 31, 2005	<u><u>\$1,196,029,687</u></u>	<u><u>\$609,748,987</u></u>	<u><u>\$1,805,778,674</u></u>
Internal Rate of Return	6.4%	6.4%	6.4%

ASLCC PROGRAM
UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)
DECEMBER 31, 2005

	University Hospital Authority	Health and Education Facility	Housing and Economic Development	Wiscraft	Other State Employers	Totals
Balance December 31, 2004	\$ 17,138,983	\$ 58,169	\$ 0	\$223,063	\$ 0	\$ 17,420,215
Less: Adjustments	0	0	0	0	0	0
Less: Payments	(1,542,442)	(4,089)	0	(9,177)	0	(1,555,708)
Plus: Interest	1,216,530	4,218	0	16,683	0	1,237,431
Balance December 31, 2005	\$ 16,813,071	\$ 58,298	\$ 0	\$230,569	\$ 0	\$ 17,101,938
Base UAAL	\$ 9,182,525	\$ 33,787	\$ 0	\$125,725	\$ 0	\$ 9,342,037
Supplemental UAAL	\$ 7,630,546	\$ 24,511	\$ 0	\$104,844	\$ 0	\$ 7,759,901
Annual Payroll	\$171,259,091	\$272,586	\$9,076,839	\$762,079	\$3,228,585,892	\$3,409,956,487
Base Contribution Rate						
Normal Cost	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
UAAL	<u>0.4%</u>	<u>0.9%</u>	<u>0.0%</u>	<u>1.2%</u>	<u>0.0%</u>	<u>0.0%</u>
Total	1.2%	1.7%	0.8%	2.0%	0.8%	0.8%
Supplemental Contribution Rate						
Normal Cost	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
UAAL	<u>0.3%</u>	<u>0.6%</u>	<u>0.0%</u>	<u>1.0%</u>	<u>0.0%</u>	<u>0.0%</u>
Total	0.7%	1.0%	0.4%	1.4%	0.4%	0.4%
Total Contribution Rate	1.9%	2.7%	1.2%	3.3%	1.2%	1.2%

Base Plan Results

SECTION 40.05(4)(B)
ACCUMULATED SICK LEAVE CONVERSION CREDIT PROGRAM
SUMMARY OF ACCUMULATION AND PAYMENT CONDITIONS

Accumulation. For most participants, sick leave has historically accrued at the rate of 4 hours every two weeks to a maximum of 13 days a year. The potential accrual rate was increased to 5 hours per pay period in 1998, which corresponds to 16.25 days per year. Unused portions accumulate from year to year and are converted at retirement as indicated below. The average annual sick leave balance of Wisconsin State employees (other than University employees) in 2005 was 85.2 days. Based upon an average of 13.1 years of service, this would correspond to an average annual addition of 6.5 days per year to sick leave accounts for past years. For University and University Hospital employees, the average balance was 83.4 days. Based upon an average of 11.3 years of service, this would correspond to an average annual addition of 7.4 days per year to the sick leave accounts for past years. In the future, average annual additions are assumed to be higher because potential sick leave accrual rates have been increased. For purposes of estimating sick leave balances at retirement, each individual was assumed to continue using sick leave at the same rate as in the past but not less than 25% nor more than 75% of the person's annual accrual rate (usually 16.25 days).

Eligibility for Payment of Accrued Sick Leave. Termination of employment with 20 or more years of service or eligibility for an immediate annuity from the Wisconsin Retirement System. State elected officials and certain state administrative officials terminating before their minimum service retirement age retain eligibility for benefits at their minimum service retirement age providing they do not elect a WRS separation benefit.

Amount of Payment for Unused Sick Leave. A conversion credit is computed at the time of retirement or death by multiplying the number of days of unused sick leave by the highest basic pay rate. The conversion credit is then used to cover the cost of health insurance premiums for the employee and eligible dependents. Unused portions are carried forward from year to year without interest and when total health insurance premiums paid on behalf of the retired employee equal or exceed the conversion credit, no further payments are made under the ASLCC program. Payments from the sick leave account may be escrowed indefinitely after retirement for participants who provide evidence of comparable health insurance coverage from another source.

**40.05(4)(B) - BASE ASLCC PROGRAM
DEVELOPMENT OF NORMAL COST
DECEMBER 31,**

<u>Actuarial Present Value of</u>	<u>2005</u>	<u>2004</u>
(1) Future Amount to be paid on behalf of present retirants and beneficiaries	\$ 247,629,721	\$ 238,806,291
(2) Future Amount to be paid on behalf of future retirees and beneficiaries	<u>1,219,528,864</u>	<u>1,208,987,959</u>
(3) Total Actuarial Present Value	\$ 1,467,158,585	\$ 1,447,794,250
(4) Assets	1,196,029,688	1,153,950,037
(5) Unfunded Actuarial Accrued Liabilities (UAAL)	<u>\$ 9,342,037</u>	<u>\$ 9,530,389</u>
(6) Present Value of Future Normal Cost: (3) - (4) - (5)	\$ 261,786,861	\$ 284,313,824
(7) Present Value of Future Salary	\$33,163,677,593	\$33,413,143,836
(8) Normal Cost: (6) / (7)	0.8%	0.9%

**40.05(4)(B) - BASE ASLCC PROGRAM
COMPUTED EMPLOYER CONTRIBUTIONS
DECEMBER 31, 2005**

Contributions for	Computed Employer Contribution Rate as a % of Covered Payroll
Normal Cost	0.8%
UAAL*	0.0%
Total	0.8%

* *Unfunded actuarial accrued liabilities of \$9.3 million were amortized over 20 years. Although this results in a 0.0% of pay contribution due to rounding, unfunded liabilities are allocated to individual employers as shown on page 4 and employers having an unfunded liability will make a separate contribution towards this unfunded liability.*

Discussion:

The financial objective of the ASLCC program is to establish and receive contributions to support benefits that will remain approximately level from year to year. In 2003, the State of Wisconsin issued Pension Obligation Bonds which paid off the majority of unfunded liabilities of the ASLCC Program. Since unfunded liabilities remained for certain employers, the funding method was changed to the Frozen Initial Liability Actuarial Cost Method. Under this method, gains and losses arising from the difference between actual and assumed experience are reflected in the determination of the normal cost. Separate amortization schedules are established for employers with unfunded liabilities (see page 4), resulting in separate contribution rates for each participating employer.

**40.05(4)(B) - BASE ASLCC PROGRAM
COMPARATIVE STATEMENT OF RESULTS**

Valuation Date	No. Active	Covered Payroll \$ Millions	Average			\$ Millions		Average Computed Employer Rate
			Age	Service	Accr. Sick Days	Assets	UAAL	
1987	48,127	\$1,319.9	43.1	11.0	80.6	\$ 20.2	\$355.0	2.3%
1988@	48,292	1,412.7	43.4	11.2	81.3	34.4	391.9	2.4%
1989	48,247	1,434.5	43.4	12.2	80.7	50.0	383.5	2.1%
1990	49,983	1,624.3	43.5	12.1	80.8	73.9	377.4	2.1%
1991@	54,675	1,810.4	43.4	11.8	78.0	92.4	407.9	2.1%
1992	57,577	1,932.4	43.0	11.3	74.7	121.6	387.4	2.1%
1993	58,299	2,021.8	43.3	11.6	76.0	156.4	364.4	2.1%
1994@	58,971	2,136.9	43.6	11.8	77.0	186.7	380.4	1.9%
1995	57,941	2,151.9	44.2	12.5	80.3	236.8	370.1	1.9%
1996	57,920	2,184.3	44.2	12.3	79.4	283.2	354.4	1.8%
1997@#	58,872	2,260.8	44.3	12.3	79.5	337.2	251.8	1.8%
1998	60,502	2,415.5	44.4	12.2	79.9	392.9	241.9	1.9%
1999	62,158	2,521.6	44.6	12.2	81.0	457.0	260.0	1.8%
2000@	63,008	2,753.3	44.6	12.0	80.6	515.6	214.2	1.7%
2001	64,510	2,980.6	44.5	11.8	80.9	611.7	218.7	1.7%
2002	66,442	3,096.7	44.8	11.8	80.9	619.0	262.6	1.8%
2003@&	68,366	3,349.0	45.0	11.8	80.9	1,085.1	10.9	0.9%
2004	68,269	3,400.0	45.4	12.0	83.1	1,154.0	9.5	0.9%
2005	67,460	3,410.0	45.6	12.2	84.3	1,196.0	9.3	0.8%

@ Assumption change

Benefit change

& Method change

Supplemental Plan Results

**ACCUMULATED SICK LEAVE CONVERSION CREDIT PROGRAM
SUPPLEMENTAL PLAN
DECEMBER 31, 2005**

This supplemental plan provides matching credits for participants retiring with 15 or more years of state service as follows:

- **Protective:** Match up to 78 hours (9.75 days) per full year of service through 24 years, plus 104 hours (13 days) per full year of service over 24 years.
- **Others:** Match up to 52 hours (6.5 days) per full year of service through 24 years, plus up to 104 hours (13 days) per full year of service over 24 years.

The results below are for the supplemental program only. (The results on page 6 are for the ASLCC base program only.) The supplemental plan accrued liabilities are offset by supplemental plan assets which are accounted for separately by DETF. The contribution rate sufficient to amortize the UAAL over a period of 20 years (the same period as in the base program) is 0.4% of covered payroll as shown below.

Contributions for	Computed Employer Contribution Rate as a % of Covered Payroll
Normal Cost	0.4%
UAAL*	0.0%
Total	0.4%

* *Unfunded actuarial accrued liabilities of \$7.8 million were amortized over 20 years. Although this results in a 0.0% of pay contribution due to rounding, unfunded liabilities are allocated to individual employers as shown on page 4 and employers having an unfunded liability will make a separate contribution towards this unfunded liability.*

The contribution rate shown above was developed based upon the active participant data as shown on page 2. This is the same data that was used in the development of the base plan rates.

**40.05(4)(B) – SUPPLEMENTAL ASLCC PROGRAM
DEVELOPMENT OF NORMAL COST
DECEMBER 31,**

Actuarial Present Value of	2005	2004
(1) Future Amount to be paid on behalf of present retirants and beneficiaries	\$ 188,760,187	\$ 168,028,968
(2) Future Amount to be paid on behalf of future retirees and beneficiaries	556,427,452	549,720,978
(3) Total Actuarial Present Value	\$ 745,187,639	\$ 717,749,946
(4) Assets	609,748,987	570,552,104
(5) Unfunded Actuarial Accrued Liabilities (UAAL)	\$ 7,759,901	\$ 7,889,826
(6) Present Value of Future Normal Cost: (3) - (4) - (5)	\$ 127,678,752	\$ 139,308,016
(7) Present Value of Future Salary	\$33,163,677,593	\$33,413,143,836
(8) Normal Cost: (6) / (7)	0.4%	0.4%

**ASLCC SUPPLEMENTAL PLAN
COMPARATIVE STATEMENT OF RESULTS**

Valuation Date	No. Active	Covered Payroll \$ Millions	Average			\$ Millions		Average Computed Employer Rate
			Age	Service	Accr. Sick Days	Assets	UAAL	
December 31								
1996	57,920	\$2,184.3	44.2	12.3	79.4	\$ 0.1	\$273.2	1.1%
1997@#	58,872	2,260.8	44.3	12.3	79.5	13.7	154.5	0.9%
1998	60,502	2,415.5	44.4	12.2	79.9	41.2	139.6	0.8%
1999	62,158	2,521.6	44.6	12.2	81.0	69.4	143.1	0.9%
2000@	63,008	2,753.3	44.6	12.0	80.6	97.3	212.6	1.0%
2001	64,510	2,980.6	44.5	11.8	80.9	133.4	245	1.1%
2002	66,442	3,096.7	44.8	11.8	80.9	154.2	273.9	1.2%
2003@&	68,366	3,349.0	45.0	11.8	80.9	519.9	9.1	0.5%
2004	68,269	3,400.0	45.4	12.0	83.1	570.6	7.9	0.4%
2005	67,460	3,410.0	45.6	12.2	84.3	609.7	7.8	0.4%

@ Assumption change
Benefit change
& Method change

For the 2000 and subsequent valuations, retiree liabilities were separately calculated for the supplemental plan. For 1999 and prior, those liabilities were reported as base plan liabilities.

Actuarial Methods and Assumptions

ACTUARIAL VALUATION METHOD

The actuarial funding method prescribed in the statute for WRS is the **Frozen Initial Liability Actuarial Cost Method**. This funding method is also used for the ASLCC valuation. Under this method, the amount of remaining unfunded accrued actuarial liabilities at any valuation date is affected only by the monthly amortization payments, compound interest, the added liability created by new employer units, and any added liabilities caused by changes in benefit provisions.

Actuarial gains or losses arising from the difference between actual and assumed experience are reflected in the determination of the normal cost. In this manner, experience gains or losses in any year are amortized (spread) over the average future working lifetime of the active participant group.

ACTUARIAL METHOD AND ASSUMPTIONS USED IN VALUATIONS

The principal areas of risk assumption are:

- long-term *rates of investment return* likely to be generated by system assets
- *rates of mortality* among participants, retirees and beneficiaries
- *rates of withdrawal* of active participants
- *rates of disability* among participants
- *patterns of salary increases* to be experienced by participants
- the age and service *distribution of actual retirements*
- future *rates of sick leave usage* by plan participants

In an actuarial valuation, the actuary projects the monetary effect of each risk assumption for each distinct experience group, for the next year and for each year over the next half-century or longer.

Once actual risk experience has occurred and been observed, it will not coincide exactly with assumed risk experience, regardless of the skill of the actuary, the completeness of the data, and the precision of the calculations. Each valuation provides a complete recalculation of assumed future risk experience and takes into account all past differences between assumed and actual risk experience. The result is a continual series of small adjustments to the computed contribution rate. From time to time it becomes necessary to adjust the package of risk measurements to reflect basic experience trends -- but not random year to year fluctuations.

The liabilities calculated in this report reflect a 5% load for contingencies. Examples of contingencies are:

- A change in the potential sick leave accrual rate in 1998 from 4 hours per pay period to 5 hours per pay period. This reduces the accuracy of the assumption regarding future accrual rates since they are developed based on historical accrual rates.
- Actual data for some employers (including Health and Education Facility, Housing and Economic Development and Wiscraft) was not available at the time of this report. Based on prior calculations, they represent approximately 0.2% of total liabilities.
- Higher than the anticipated rate of increase in health care costs.

**SUMMARY OF ASSUMPTIONS
USED FOR ANNUAL ACTUARIAL VALUATIONS
ASSUMPTIONS ADOPTED BY ETF BOARD AFTER
CONSULTING WITH ACTUARY**

Economic Assumptions

The long-term rates of investment return used in making the valuation was 7.8% a year, compounded yearly.

Salary adjustment factors used to project earnings for each participant between the valuation date and the participant's retirement age are shown below for sample years of service. This assumption is used to project a participant's current earnings to the earnings upon which benefits will be based.

% Merit and Longvity Increase Next Year						
Service	Gen.	University Teachers	Public School Teachers	Protective		Exec. & Elec.
				With S.S.	w/o S.S.	
1	3.5 %	4.4 %	5.8 %	4.0 %	4.5 %	1.2 %
2	3.5 %	4.4 %	5.8 %	4.0 %	4.5 %	1.2 %
3	3.2 %	4.3 %	5.3 %	3.6 %	4.0 %	1.2 %
4	2.9 %	4.3 %	4.9 %	3.2 %	3.5 %	1.2 %
5	2.6 %	4.2 %	4.4 %	2.8 %	3.0 %	1.1 %
10	1.6 %	3.4 %	2.6 %	1.7 %	1.1 %	1.0 %
15	1.3 %	2.5 %	1.5 %	1.2 %	0.5 %	0.9 %
20	1.1 %	2.2 %	1.0 %	1.0 %	0.5 %	0.8 %
25	0.9 %	2.0 %	0.6 %	1.0 %	0.5 %	0.6 %
30	0.7 %	1.8 %	0.2 %	1.0 %	0.5 %	0.4 %

If the number of active participants remains constant, then the total active participant payroll will increase 4.1% a year, the base portion of the individual salary increase assumptions. This increasing payroll was recognized in amortizing unfunded actuarial accrued liabilities. Premium payments from the ASLCC Program were also assumed to increase 4.1% a year.

Separate assumptions regarding secular trend of health care inflation and aging assumptions were not used. Because of the structure of the ASLCC program, use of these assumptions would not significantly affect results.

DECREMENT PROBABILITIES

The mortality table used to measure mortality for retired participants was the Wisconsin Projected Experience Table - 2002 for men and women, as adopted by the Board in connection with the 2000-2002 Experience Study. Sample life expectancy values from this table are shown below. This assumption is used to measure the probabilities of participants dying before retirement and the probabilities of each benefit payment being made after retirement.

**Single Life Expectancy
Wisconsin Projected Experience Table – 2002**

Sample Attained Ages	Future Life Expectancy (years)	
	Males	Females
40	40.3	45.1
45	35.5	40.3
50	30.8	35.4
55	26.3	30.7
60	21.9	26.1
65	17.8	21.6
70	14.0	17.3
75	10.7	13.4
80	7.9	10.1
85	5.8	7.3

The values shown above are for non-disabled participants.

ACTIVE PARTICIPANT MORTALITY RATES

Sample Attained Ages	Mortality Rates	
	Males	Females
20	0.000145	0.000085
25	0.000179	0.000113
30	0.000234	0.000153
35	0.000324	0.000212
40	0.000472	0.000305
45	0.000844	0.000454
50	0.001526	0.000699
55	0.002460	0.001057
60	0.003788	0.001782
65	0.006433	0.003126
70	0.011998	0.005513
75	0.020418	0.011278
80	0.035773	0.020671

This assumption is used to measure the probability of participants dying while in service.

RATES OF RETIREMENT FOR THOSE ELIGIBLE TO RETIRE

Normal Retirement Pattern

Age	General		Public School		University		Protective*		Exec. & Elected
	Male	Female	Male	Female	Male	Female	With S.S.	W/O S.S.	
50							6%	2%	
51							7%	2%	
52							7%	9%	
53							38%	38%	
54							20%	36%	
55							20%	36%	
56							25%	36%	
57	28%	27%	25%	30%	25%	20%	20%	36%	8%
58	28%	27%	25%	30%	20%	20%	20%	40%	8%
59	28%	25%	25%	30%	20%	20%	20%	30%	12%
60	28%	25%	30%	30%	20%	20%	20%	30%	14%
61	30%	25%	35%	35%	20%	20%	20%	30%	35%
62	40%	30%	60%	40%	20%	25%	20%	15%	10%
63	40%	35%	50%	35%	20%	30%	30%	15%	10%
64	35%	35%	50%	25%	20%	30%	20%	15%	10%
65	35%	30%	70%	30%	20%	25%	30%	40%	10%
66	35%	30%	70%	25%	20%	25%	25%	40%	20%
67	15%	20%	50%	25%	20%	25%	25%	40%	20%
68	15%	15%	50%	20%	20%	20%	25%	40%	20%
69	15%	15%	50%	20%	20%	20%	25%	40%	20%
70	15%	15%	50%	20%	20%	20%	100%	100%	10%
71	15%	15%	50%	20%	20%	20%	100%	100%	10%
72	15%	15%	50%	20%	20%	20%	100%	100%	10%
73	15%	15%	50%	20%	20%	20%	100%	100%	10%
74	15%	15%	50%	20%	20%	20%	100%	100%	10%
75	100%	100%	100%	100%	100%	100%	100%	100%	100%

* Includes early retirements

Early Retirement Pattern

Age	% Retiring Next Year							Exec. & Elected
	General		Public School		University			
	Male	Female	Male	Female	Male	Female		
55	8%	6%	15%	11%	5%	5.0%	5%	
56	8%	6%	15%	11%	5%	5.0%	5%	
57	4%	5%	15%	11%	4%	5.0%	4%	
58	6%	5%	15%	12%	4%	5.0%	4%	
59	6%	5%	10%	12%	5%	10.0%	4%	
60	8%	8%	15%	15%	5%	10.0%	4%	
61	8%	8%	15%	15%	5%	10.0%	4%	
62	20%	18%	25%	25%	10%	10.0%		
63	20%	18%	25%	20%	10%	10.0%		
64	15%	14%	15%	15%	10%	10.0%		

The assumed rates of separation from employment prior to service retirement due to disability and other causes are shown below for sample ages. For other terminations it was assumed that a percentage depending on age of participants terminating after age 35 with 5 or more years service will leave their contributions on deposit and be paid a benefit at normal retirement age and that the remaining participants would take a separation benefit. The percentage taking a separation benefit is 100% at age 35, grading downward to 0% at retirement eligibility. All participants terminating prior to normal retirement age with less than 5 years of service were assumed to take a separation benefit.

**Assumed Termination Rates
by Attained Age and Years of Service**

Age & Service	% of Active Participants Terminating										
	Protective		Public Schools		University		Exec. & Elected	Other			
	With Soc. Sec.	Without Soc. Sec.	Males	Females	Males	Females		Males	Females		
25 30 35 40 45 50 55 60	0	11.0%	5.0%	11.0%	10.0%	18.0%	18.0%	9.0%	18.0%	18.0%	
	1	6.0%	2.5%	7.0%	8.0%	13.0%	15.0%	8.5%	10.0%	11.0%	
	2	3.5%	2.2%	5.0%	6.0%	10.0%	13.0%	8.0%	8.0%	9.0%	
	3	3.2%	2.0%	4.5%	5.4%	9.0%	10.0%	7.0%	6.0%	7.0%	
	4	3.2%	1.7%	3.5%	4.4%	7.0%	9.0%	5.0%	5.0%	6.0%	
	5 & Over	1.6%	1.0%	3.5%	4.0%	7.0%	9.0%	5.0%	5.0%	5.5%	
			1.5%	0.9%	2.7%	3.5%	6.7%	7.8%	4.7%	4.1%	4.9%
			1.3%	0.8%	1.5%	2.3%	6.2%	6.1%	4.2%	2.8%	3.6%
			1.2%	0.8%	1.2%	1.5%	4.8%	4.7%	3.4%	2.0%	2.7%
			1.1%	0.7%	1.0%	1.2%	3.1%	3.4%	2.4%	1.6%	2.2%
			0.8%	0.7%	0.9%	1.2%	1.9%	2.6%	2.0%	1.3%	2.0%
		0.6%	0.7%	0.9%	1.2%	1.5%	2.4%	2.0%	1.3%	2.0%	
		0.6%	0.7%	0.9%	1.2%	1.5%	2.4%	2.0%	1.3%	2.0%	

Disability Rates

Age	% of Active Participants Becoming Disabled									
	Protective		Public Schools		University		Exec. & Elected		Other	
	With SS	W/O SS	Males	Females	Males	Females	Males	Females	Males	Females
20	0.01%	0.04%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%
25	0.01%	0.04%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%
30	0.01%	0.05%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.04%
35	0.03%	0.06%	0.01%	0.01%	0.01%	0.04%	0.01%	0.01%	0.02%	0.05%
40	0.05%	0.11%	0.02%	0.02%	0.01%	0.06%	0.01%	0.01%	0.06%	0.07%
45	0.09%	0.19%	0.05%	0.08%	0.03%	0.05%	0.02%	0.02%	0.11%	0.10%
50	0.30%	0.59%	0.14%	0.16%	0.05%	0.10%	0.05%	0.05%	0.25%	0.16%
55	1.00%	0.65%	0.26%	0.23%	0.15%	0.15%	0.18%	0.18%	0.48%	0.29%
60	0.68%	0.50%	0.43%	0.34%	0.20%	0.23%	0.22%	0.22%	0.85%	0.41%