FINANCIAL EXPERIENCE REPORT

State of Wisconsin - Group Insurance Board

January 1, 2017 through December 31, 2017

Policy Number: 2832

Submitted by

Minnesota Life Insurance Company

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June 30, 2018

The Group Insurance Board 4822 Madison Yards Way Madison, WI 53705-9100

RE: EMPLOYEE LIFE INSURANCE PLAN 2017 POLICY YEAR HIGHLIGHTS

Ladies and Gentlemen:

This report presents the 2017 policy year experience on the group life insurance plans for employees of the State of Wisconsin and participating local government employers. The most important developments on the plans during 2017 are summarized in this letter. Details may be found in the policy year report on the page(s) indicated following each section. Historical experience is presented on pages 19-33 for the State plan and on pages 47-59 for the local government plan.

STATE PLAN

PLAN GROWTH

• The total number of insured active employees increased by over 400, while the number of insured retirees increased by over 1,100. On December 31, 2017, over 51,000 active employees, plus over 32,000 retired employees, were insured under the plan. Total life insurance in force on active employees, retirees, spouses and dependents increased by 3% to over \$11.5 billion. (Pages 5 and 13)

CLAIMS

- In 2017, claims for the employee plan were lower than expected, driven by low life and disability claims. (Pages 6, 7, 14 and 15)
- Claims on the spouse and dependent plan were lower than target. (Page 11)

OTHER BENEFITS

- In April 2010, the Board approved the addition of an aviation AD&D benefit for work related accidental deaths. The 2017 policy year is the seventh in which a separate experience calculation has been performed for that benefit. There were no claims for this benefit in 2017. (Page 9)
- Retired State employees are allowed to convert the value of their postretirement life insurance to an account to pay health insurance or long-term care insurance premiums. During 2017, a total of 264 retired State employees utilized this option, including 80 new elections in 2017 and 184 continuations of earlier elections. As of December 31, 2017, there were 213 retired State employees utilizing this option. Of these 213 retired employees, 166 employees used the account to pay health insurance premiums and 47 used it for long-term care insurance premiums. Converted values for these employees are deducted from the plan's reserves at the time this option is elected. (Pages 16 and 63)

FUNDING STATUS

- The overall average interest earnings rate on all reserve funds held for the plan was 3.15%.
 This result reflects a conservative investment strategy involving primarily high-grade corporate bonds.
- The plan ended 2017 with funding at 68.1% of liabilities. Options for increasing the funding level will be presented at the November Group Insurance Board meeting. (Page 17)

LOCAL GOVERNMENT PLAN

PLAN GROWTH

- The plan continued its steady, modest growth. In 2017, three local government employers entered the plan, and three local government employers withdrew. Five participating employers increased the benefits they offer to their employees. On December 31, 2017, a total of 738 local government employers participated.
- The total number of insured active employees increased by less than 100, while the number of insured retirees increased by over 1,300. On December 31, 2017, over 75,000 active employees, plus over 43,000 retired employees, were insured under the plan. Total life insurance in force on active employees, retirees, spouses and dependents increased by 2% to \$12.4 billion. (Pages 35 and 41)

CLAIMS

- In 2017, claims for the employee plan were lower than expected, driven by low life and disability claims. (Pages 36, 37, 42 and 43)
- Claims in 2017 on the spouse and dependent plan were slightly higher than the current target level, which anticipates using the plan's reserves to cover excess claims. (Page 39)

OTHER BENEFITS

• Retired local employees are allowed to convert the value of their postretirement life insurance to pay health insurance premiums. Usage of this provision among local government retirees has been minimal, as only a small number participate in the Board's health insurance plans. The long-term care insurance plan offered through ETF is not available to local government employees. Only two people used this option during 2017. (Pages 44 and 63)

FUNDING STATUS

- The overall average interest earnings rate on all reserve funds held for the plan was 3.09%. This result reflects a conservative investment strategy involving primarily high-grade corporate bonds.
- The plan ended 2017 with funding at 105.6% of liabilities. (Page 45)

Respectfully submitted,

Paul Rudeen, FSA

Vice President and Actuary Group Insurance Division

PR:pt

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I. Plan Summary

The group life insurance plan for State of Wisconsin employees began on January 1, 1958; the group life insurance plan for local government employees began on January 1, 1960. These plans provide term life insurance for both active and retired employees. Employees may also insure their spouses and dependent children.

A. State of Wisconsin - Employee Insurance

Both active and retired State employees are eligible for a basic term insurance plan. Employees also receive accidental death and dismemberment insurance equal to their life insurance until age 65. If an insured employee continues in employment, benefits continue beyond age 65 until the earlier of retirement or attainment of age 70. The waiver of premium benefit provides free insurance to disabled employees under age 70.

Insurance for all employees under age 65 and for active employees ages 65 to 69 is equal to earnings under the Wisconsin Retirement System for the previous calendar year rounded to the next higher thousand dollars. At age 65, insurance reduces to 75% of the insurance then in force. At age 66, insurance reduces to 50% of the insurance in force prior to age 65. For active employees over age 65, these reductions are delayed until the earlier of retirement or attainment of age 70. A retired employee retains lifetime coverage in a reduced amount.

A supplemental insurance plan provides added term insurance for active employees equal to 100% of insurance under the basic plan. Prior to April 24, 1990, an employee could alternatively select supplemental insurance equal to 50% of insurance under the basic plan. Employees enrolled under that alternative may maintain that level of coverage. The supplemental insurance terminates on the later of the employee's 65th birthday or retirement but in no event beyond the employee's 70th birthday.

An additional insurance plan offers extra coverage on an employee-pay-all basis. Effective May 1, 1998, an employee may elect up to three units of additional insurance. Each unit provides coverage equal to 100% of insurance under the basic plan. The additional insurance terminates on the later of the employee's 65th birthday or retirement. An employee who continues in active employment beyond age 70 may maintain the additional insurance coverage by continued payment of premiums.

Employees pay premiums to cover the major portion of the cost of the basic and supplemental coverages during active employment. Employees pay premiums to cover the entire cost of the additional insurance. Employee premium rates in effect during 2017 were as shown in the table on the following page.

Monthly Premium per \$1,000 of Insurance

Attained	1-1-2017 through 12-31-2017						
Age	<u>Basic</u>	<u>Supplemental</u>	<u>Additional</u>				
Under 30	\$.04	\$.04	\$.06				
30-34	.04	.04	.06				
35-39	.04	.04	.06				
40-44	.06	.06	.09				
45-49	.10	.10	.15				
50-54	.16	.16	.24				
55-59	.22	.22	.33				
60-64	.30	.30	.45				
65-69	.39	.39	.59				

Post-age 65 retired employees pay no further premiums. The State contributes premiums equal to 65.25% of employee contributions for basic insurance and 37.25% of employee contributions for supplemental insurance. These contributions are allocated to cover the cost of continuing the basic plan after retirement, to cover the State's portion of the cost of the basic and supplemental plans for active employees, and to cover the cost of the employer aviation AD&D insurance.

B. State of Wisconsin - Spouse and Dependent Insurance

The spouse and dependent insurance plan for State employees was introduced in 1981. Insured State employees may purchase life insurance benefits for spouses and dependents. A dependent child is eligible until age 19 or until age 25 as long as the dependent is a full-time student. A physically or mentally disabled dependent may qualify to continue the coverage past age 25. Premiums for this insurance are paid entirely by employees.

An insured employee may elect either one or two units of coverage. Each unit provides \$10,000 of life insurance for an insured spouse and \$5,000 for each insured dependent child. During 2017, the monthly premium was \$2.50 for each unit of coverage.

C. Local Government Employers - Employee Insurance

All three insurance plans are available to employees of local government employers. A local government employer may elect to offer only the basic plan or may offer the basic plan with either or both the supplemental plan and the additional plan. The employer may select a benefit reduction schedule for the basic plan identical to the State plan or a plan with an age 67 benefit reduction to 25% of insurance in force prior to age 65.

Employees pay premiums to cover the entire cost of basic, supplemental and additional insurance during active employment and while retired and under age 65. Employee premium rates in effect during 2017 were as follows:

Monthly Premium per \$1,000 of Insurance for Basic, Supplemental and Additional

Attained <u>Age</u>	01-01-2017 through 12-31-2017
Under 30	.05
30-34	.06
35-39	.07
40-44	.08
45-49	.12
50-54	.22
55-59	.39
60-64	.49
65-69	.57

The employer's contribution for the basic plan with a 50% ultimate benefit at ages 66 and later is 40% of employee contributions. For the plan with a benefit reduction to 25% at age 67 and later, the contribution is 20% of employee contributions.

D. Local Government Employers - Spouse and Dependent Insurance

The spouse and dependent insurance plan for local government employees was introduced in 1983. The benefits are the same as those under the plan for State employees.

During 2017, the monthly premium was \$1.75 for each unit of coverage.

E. Funding Status

The cost of insurance for retired employees is funded in advance by employer premium contributions and by dividends from the premiums paid by active employees. Each year the values of the plans' assets are compared to the present values of future benefit liabilities for retired employees and the present values of future benefits in excess of future premiums for active employees. The following table summarizes this comparison as of December 31, 2017:

					Local
			State		Government
1.	Assets		<u>Plan</u>		Employers Plan
	a. Retiree Premium Deposit Fund	\$	351,972,292	\$	213,312,700
	b. Active Premium Deposit Fund Available for Post-Retirement Funding		12,360,619		12,191,042
	c. Contingent Liability Reserve		0		30,918,590
	d. Active Stablization Reserve Available for Post-Retirement Funding	_	40,827,781	_	51,870,550
	e. Total	\$	405,160,692	\$	308,292,881
2.	Liabilities				
	a. Post-Age 65 Retirees	\$	369,544,428	\$	219,338,916
	b. Pre-Age 65 Retirees		67,934,115		44,349,260
	c. Active Employees	_	157,661,548	_	28,192,564
	d. Total	\$	595,140,091	\$	291,880,740
3.	Unfunded Accrued Liability (2d - 1e)	\$	189,979,399	\$	(16,412,141)
4.	Total Assets as a Percent of Total Liabilities (1e / 2d)		68.1%		105.6%

F. Underwriters

The group life insurance plan is underwritten by Minnesota Life Insurance Company. With the consent of the Group Insurance Board, the EPIC Life Insurance Company reinsured a portion of the plan during 2017.

G. Financial Basis

The financial agreement between the Group Insurance Board and Minnesota Life establishes the basis for plan finances. All calculations in this policy year report are made in accordance with the financial agreement and amendments approved by the Group Insurance Board.

II. State of Wisconsin Plan - Active Employees*

Report on operations for 2017, the sixtieth year of the plan.

A. Employee Coverage

	<u>12-31-2016</u>	12-31-2017
1. Employees Insured for Pre-Retirement Insurance		
Basic Plan Supplemental Plan Additional Plan	50,946 35,536 24,920	51,438 36,088 25,246
2. Pre-Retirement Life and AD&D Insurance		
Basic Plan Supplemental Plan Additional Plan	\$ 3,126,018,000 2,240,510,000 3,631,033,000	\$ 3,226,948,950 2,301,118,542 3,764,822,806
B. Spouse and Dependent Coverage		
1. Employees Insured	23,393	23,020
2. Estimated Spouse and Dependent Life Insurance	\$ 568,225,000	\$ 559,785,000

- All active employees at ages under 70.
- All active employees at age 70 and over who continue to participate in the additional life insurance benefit.
- Spouses and dependents of active employees.
- All premium contributions by the State toward the cost of pre-retirement life insurance for active employees.

^{*}The active employee plan financial report includes:

C. Pr	emium Summary								
Er	Employee Contributions								
	Basic Plan Supplemental Plan Additional Plan Spouse and Dependen	ıt Pl	an			\$	4,760,385 3,420,674 7,639,351 1,201,756	\$	17,022,166
St	ate Contributions								
	Basic Plan Supplemental Plan Basic Aviation AD&D F Supplemental Aviation		&D Plan			\$	1,666,135 1,197,236 107,109 76,965	\$	3,047,445
To	otal Premium							\$	20,069,611
D. En	nployee Claims		Basic Plan		Supplemental Plan	_	Additional Plan	_	Total
	Life AD&D Living Benefit Disability	\$	4,338,974 278,734 120,000 (443,660)	\$	3,177,663 242,560 0 (377,131)	\$	4,855,990 214,872 673,000 (133,758)	\$	12,372,627 736,166 793,000 (954,549)
	Total	\$	4,294,048	\$	3,043,092	\$	5,610,104	\$	12,947,244
E. En	nployer Aviation AD&D (Claiı	ms Basic Plan		Supplemental Plan	-	Additional Plan	_	Total
	AD&D	\$	0	\$	0	\$	0	\$_	0
	Total	\$	0	\$	0	\$	0	\$	0
F. Sp	ouse and Dependent Cl	aim	s Spouse		Dependent			<u>-</u>	Total
	Life Living Benefit	\$	726,580 40,000	\$	115,185 0			\$_	841,765 40,000
	Total	\$	766,580	\$	115,185			\$	881,765

G. Financial Experience - Active Employee Insurance

1. Premium		
Employee Contributions Employer Contributions	\$ 15,820,410 2,863,371	
Total Premium		\$ 18,683,781
2. Claim Charges		
Death Claims AD&D Claims Living Benefit Claims Increase in Disability Claim Reserve Pooled Claims Pool Charge Conversion Charge Catastrophic Loss Credit	\$ 12,372,627 736,166 793,000 (954,549) (801,675) 1,483,880 7,260 0	
Total Claim Charges		\$ 13,636,709
3. Expense Charges		
Minnesota Life Expenses Reinsurance Expense Risk Charge	\$ 781,916 3,355 0	
Total Expense Charges		\$ 785,271
4. Tax Charges		
State Premium Tax Federal Income Tax	\$ 373,676 5,839	
Total Tax Charges		\$ 379,515
5. Interest Credits/Charges		
On Premium On Disability Claim Reserve On Claims Paid On Expense Charges, Pool Charge & Conversion Charge	\$ 99,886 947,672 (43,414) (14,301)	
Total Interest Credits/Charges		\$ 989,843
6. State Internal Administration Expense		\$ 204,408
7. Audit/Consultant Service Charge		\$ 0
8. Contribution to Stabilization Reserve [(1)-(2)-(3)-(4)+(5)-(6)-(7)]		\$ 4,667,721

H. Reserve Summary 1. Premium Deposit Fund Balance on 12-31-2017 \$ 11,977,289 Interest Credit 383,330 Withdrawals on 12-31-2017 0 Balance on 12-31-2017 12,360,619 2. Stabilization Reserve Balance on 12-31-2016 39,598,519 Interest Credit 1,232,486 Contribution on 12-31-2017 4,667,721 Withdrawals on 12-31-2017 Balance on 12-31-2017 45,498,726 Interest Rate on Premium Deposit Fund and Stabilization Reserve in 2017 3.13%

I. Stop-Loss Calculation for Active Employee Insurance

Stop-Loss Limit

Claim Charges

Total Charges

Expense Charges

Catastrophic Loss Credit

	\sim	
_	×	_

26,096,020

13,913,739

15,072,686

1,158,947

0

\$

\$

J. Financial Experience - Employer Aviation AD&D Insurance

1. Premium			\$ 184,074
Claim Charges AD&D Claims Pooled Claims Pool Charge Catastrophic Loss Credit	\$	0 0 11,990 0	
Total Claim Charges			\$ 11,990
Expense Charges Risk Charge	\$	1,242	
Total Expense Charges			\$ 1,242
Tax Charges State Premium Tax	\$	3,681	
Total Tax Charges			\$ 3,681
 Interest Credits/Charges On Premium On Claims Paid On Expense Charges & Tax Charges 	\$ 	986 0 (85)	
Total Interest Credits/Charges			\$ 901
6. Addition to Stabilization Reserve [(1)-(2)-(3)-	(4)+(5)]		\$ 168,062
7. Stabilization Reserve Stabilization Reserve on 12-31-2016 Addition to Reserve on 12-31-2017 Interest on Stabilization Reserve in 2017			\$ 1,003,134 168,062 27,080
Stabilization Reserve on 12-31-2017			\$ 1,198,276

K. Financial Experience - Spouse and Dependent Insurance

L.

1. Premium	\$	1,201,756
2. Claim Charges Death Claims \$841,765 Living Benefit Claims 40,000 Conversion Charge 8,040 Catastrophic Loss Credit 0		
Total Claim Charges	\$	889,805
3. Expense Charges Minnesota Life Expenses \$ 22,232 Risk Charge		
Total Expense Charges	\$	24,636
4. Tax Charges State Premium Tax Federal Income Tax \$ 24,035 237		
Total Tax Charges	\$	24,272
5. Interest Credits/Charges On Premium \$ 6,457 On Claims Paid (3,904) On Expense Charges & Conversion Charge (684)		
Total Interest Credits/Charges	\$	1,869
6. State Internal Administration Expense	\$	79,932
7. Audit/Consultant Service Charge	\$	0
8. Addition to Stabilization Reserve [(1)-(2)-(3)-(4)+(5)-(6)-(7)]	\$	184,980
 Stabilization Reserve Stabilization Reserve on 12-31-2016 Addition to Reserve on 12-31-2017 Interest on Stabilization Reserve in 2017 	\$	666,708 184,980 18,037
Stabilization Reserve on 12-31-2017	\$	869,725
Stop-Loss Calculation for Spouse and Dependent Insurance		
Stop-Loss Limit	\$	1,562,283
Claim Charges Expense Charges	-	833,948 48,671
Total Charges	\$	882,619
Catastrophic Loss Credit	\$	0

III. State of Wisconsin Plan - Retirees*

Report on operations for 2017, the sixtieth year of the plan.

A. Retiree Coverage

	<u>12-31-2016</u>	12-31-2017
1. Retirees Insured for Pre-Age 65 Insurance		
Basic Plan Supplemental Plan Additional Plan	7,127 4,599 2,089	7,032 4,523 2,091
2. Pre-Age 65 Life and AD&D Insurance		
Basic Plan Supplemental Plan Additional Plan	\$ 466,946,000 296,617,000 239,308,000	\$ 464,017,000 293,738,000 243,715,000
3. Retirees Insured for Post-Age 65 Insurance	23,767	24,973
4. Post-Age 65 Life Insurance	\$ 685,321,832	\$ 735,296,500

- All retirees at age 65 and over, and all active employees at age 70 and over, who receive a post-retirement life insurance benefit with no further premium payments.
- All retirees under age 65 who receive post-retirement life insurance benefits based on continued premium payments.
- All funding contributions by the State toward future post-retirement life insurance for currently active employees.

^{*}The retiree plan financial report includes:

B. Premium Summary

Pre-Age 65 Retiree Contributions

Basic Plan	\$ 1,813,398	
Supplemental Plan	1,278,840	
Additional Plan	517,046	
		\$ 3,609,284
State Contributions to Premium Deposit Fund		\$ 1,332,953
Total Premium		\$ 4,942,237

C. Retiree Claims

	_	Basic Plan	-	Supplemental Plan	_	Additional Plan	_	Total
1. Pre-Age 65 Life and	AD&D Ins	urance						
Life AD&D Living Benefit	\$	1,651,911 0 98,000	\$	813,057 0 98,000	\$	499,193 0 0	\$	2,964,161 0 196,000
Total	\$	1,749,911	\$	911,057	\$	499,193	\$	3,160,161

2. Post-Age 65 Life Insurance

Life	\$ 16,167,529	\$ 16,167,529
Living Benefit	60,000	60,000
Total	\$ 16,227,529	\$ 16,227,529

D. Financial Experience - Pre-Age 65 Retiree Insurance

1. Premium		
Pre-Age 65 Contributions Withdrawal from Premium Deposit Fund on 12-31-2017	\$ 3,609,284 45,094	
Total Premium		\$ 3,654,378
2. Claim Charges		
Death Claims AD&D Claims Living Benefit Claims Pooled Claims Pool Charge Conversion Charge Catastrophic Loss Credit	\$ 2,964,161 0 196,000 0 150,868 0	
Total Claim Charges		\$ 3,311,029
3. Expense Charges		
Minnesota Life Expenses Reinsurance Expense Risk Charge	\$ 206,833 888 0	
Total Expense Charges		\$ 207,721
4. Tax Charges		
State Premium Tax Federal Income Tax	\$ 73,088 1,135	
Total Tax Charges		\$ 74,223
5. Interest Credits/Charges		
On Premium On Claims Paid On Expense Charges, Pool Charge & Conversion Charge	\$ 19,683 (15,447) (2,479)	
Total Interest Credits/Charges		\$ 1,757
6. State Internal Administration Expense		\$ 41,662
7. Actuarial Service Charge		\$ 21,500
8. Experience Credit [(1)-(2)-(3)-(4)+(5)-(6)-(7)]		\$ 0

The Experience Credit is deposited in the Contingent Liability Reserve.

E. Financial Experience - Post-Age 65 Retiree Insurance

Interest Rate on Premium Deposit Fund Reserve in 2017

1. Premium Deposit Fund

Premium Deposit Fund on 12-31-2016	\$	357,495,643
Contributions for Active Employees During 2017		1,332,953
Withdrawal on 12-31-2017 for Pre-Age 65 Retiree Insurance		(45,094)
Post-Age 65 Death Claims		(16,227,529)
Minnesota Life Expenses on Post-Age 65 Retiree Death Claims		(272,570)
State Premium Tax		(337,083)
Risk Charge		(16,991)
Withdrawals of Postretirement Life Insurance Values to pay Health and Long-Term Care Insurance Premiums		(1,211,428)
Interest on Premium Deposit Fund in 2017	_	11,254,391
Premium Deposit Fund on 12-31-2017	\$	351,972,292

3.21%

F. Summary of Assets and Liabilities for Post-Retirement Benefits on December 31

	<u>2016</u>		<u>2017</u>
1. Assets			
a. Retiree Premium Deposit Fundb. Active Premium Deposit Fund Available for Post-Retirement Fundingc. Contingent Liability Reserved. Active Stabilization Reserve Available for Post-Retirement Funding	\$ 357,495,643 11,977,289 0 35,008,905	\$ _	351,972,292 12,360,619 0 40,827,781
e. Total	\$ 404,481,837	\$	405,160,692
2. Liabilities			
a. Post-Age 65 Retireesb. Pre-Age 65 Retireesc. Active Employees	\$ 320,357,044 60,576,602 111,818,256		, ,
d. Total	\$ 492,751,902	\$	595,140,091
Unfunded Accrued Liability [2(d) - 1(e)]	\$ 88,270,065	\$	189,979,399
 Total Assets as a Percent of Total Liabilities [1(e)/2(d)] 	82.1%		68.1%

Definitions of asset values:

- Retiree Premium Deposit Fund: total retiree premium deposit fund assets
- Active Premium Deposit Fund Available for Post-Retirement Funding: active premium deposit fund assets in
 excess of the active target reserve level. The target level of active premium deposit fund plus active stabilization
 reserve equals 50% of active plan premium.
- · Contingent Liability Reserve: total contingent liability reserve assets
- Active Stabilization Reserve Available for Post-Retirement Funding: active stabilization reserve assets in excess
 of the active target reserve level. The target level of active premium deposit fund plus active stabilization reserve
 equals 50% of active plan premium.

Definitions of liability values:

- · Post-Age 65 Retirees: present value of future claims
- Pre-Age 65 Retirees: present value of future claims minus present value of future premiums
- Active Employees: present values of future active employment claims and future post-retirement claims for active employees minus present values of future State and employee premium contributions

Funding Assumptions appear on page 61 of this report.

G. Stop-Loss Calculation for Retiree Insurance

Stop-Loss Limit	\$ 30,302,685
Claim Charges Expense Charges	\$ 19,531,158 907,453
Total Charges	\$ 20,438,611
Catastrophic Loss Credit	\$ 0

IV. <u>Historical Experience</u>

A.	Cumulative Financial Experience on Active Employee Insurance - 200	08 thro	ough 2017	
	Employee Contributions			\$ 153,284,499
	State Contributions			
	Basic Plan Supplemental Plan	\$ 	17,190,292 12,358,645	29,548,937
	Total Premium			\$ 182,833,436
	Reserve Brought Forward on January 1, 2008			\$ 8,057,225
	Death Claims AD&D Claims Living Benefit Claims Increase in Disability Claim Reserve Pooled Claims Pool Charge Conversion Charge Catastrophic Loss Credit	\$	113,944,362 7,751,666 6,828,000 7,965,199 (1,405,123) 8,577,097 129,360 0	
	Total Claim Charges			\$ 143,790,561
	Premium Deposit Fund on 12-31-2017 Stabilization Reserve on 12-31-2017	\$ 	12,360,619 45,498,726	
	Total			\$ 57,859,345
	Payments to State			
	State Premium Tax State Internal Administration Expense Actuarial Service Charge Audit/Consultant Service Charge Legal Expense	\$	3,656,670 2,324,504 0 9,177 0	
	Total			\$ 5,990,351
	Excess of Disbursement and Reserves Over Premium and Reserve Brought Forward on January 1, 2008			\$ 16,749,596
	Minnesota Life Expenses Reinsurance Expense Risk Charge Federal Income Tax Charge	\$	7,178,381 31,239 117,026 225,194	
	Total	\$	7,551,840	
	Interest Credited to Plan		24,301,436	
	Interest Credited to Plan Less Cost			\$ 16,749,596

B. Historical Statistics - Active Employee Insurance - 2008 and Later

		_	Premium					
				State Co	ntributions			
<u>Year</u>	Insurance in Force At End of Year		Employee Contributions	Basic <u>Plan</u>	Supplemental Premium	<u>Total</u>		
2017 2016 2015 2014 2013 2012 2011 2010 2009 2008 Totals	9,292,890,298 8,997,561,000 8,613,537,000 8,452,027,000 8,181,289,000 7,809,378,000 7,884,065,000 8,152,346,000 8,098,961,000 7,527,518,000		\$15,820,410 15,515,646 15,275,946 14,891,956 14,270,577 13,858,600 15,323,502 17,069,440 16,364,530 14,893,892 \$153,284,499	\$1,666,135 1,648,564 1,647,053 1,624,221 1,570,301 1,542,392 1,887,488 1,954,805 1,893,115 1,756,218 \$17,190,292	\$1,197,236 1,194,245 1,198,117 1,185,512 1,148,173 1,131,700 1,130,589 1,452,757 1,408,385 1,311,931 \$12,358,645	\$18,683,781 18,358,455 18,121,116 17,701,689 16,989,051 16,532,692 18,341,579 20,477,002 19,666,030 17,962,041 \$182,833,436		
			Claims					
	_	.	<u>Oldimo</u>					
	L	Death Losses						
<u>Year</u>	<u>Life</u>	AD&D	<u>Total</u>	Living <u>Benefits</u>	Disability <u>Losses</u>	Total <u>Claims</u>		
2017 2016 2015 2014 2013 2012 2011 2010 2009 2008 Totals	\$12,372,627 13,238,707 10,437,142 9,502,514 12,685,738 12,293,688 12,844,361 11,065,435 11,008,714 8,495,436 \$113,944,362	\$736,166 881,336 45,440 1,221,893 158,866 1,176,864 994,280 654,500 934,814 <u>947,507</u> \$7,751,666	\$13,108,793 14,120,043 10,482,582 10,724,407 12,844,604 13,470,552 13,838,641 11,719,935 11,943,528 9,442,943 \$121,696,028	\$793,000 835,000 1,091,000 767,000 215,000 1,185,000 1,191,000 162,000 264,000 325,000 \$6,828,000	(\$954,549) (474,575) 6,070 1,512,237 322,717 1,342,529 1,184,198 1,495,964 1,696,753 1,833,855 \$7,965,199	\$12,947,244 14,480,468 11,579,652 13,003,644 13,382,321 15,998,081 16,213,839 13,377,899 13,904,281 11,601,798 \$136,489,227		
Year 2017 2016 2015 2014 2013 2012 2011 2010 2009 2008	Total <u>Claims</u> \$12,947,244 14,480,468 11,579,652 13,003,644 13,382,321 15,998,081 16,213,839 13,377,899 13,904,281 11,601,798	Conversion <u>Charge</u> \$7,260 24,000 44,820 30,300 8,700 14,280 0 0 0	Pooled <u>Claims</u> (\$801,675) (96,410) (77,934) (4,392) (20,911) 13,466 (417,267) 0 0	Pool <u>Charge</u> \$1,483,880 1,421,117 1,254,801 903,382 731,188 728,305 662,830 622,396 415,524 353,674	Total Claim Charges \$13,636,709 15,829,175 12,801,339 13,932,934 14,101,298 16,754,132 16,459,402 14,000,295 14,319,805 11,955,472			
Totals	\$136,489,227	\$129,360	(\$1,405,123)	\$8,577,097	\$143,790,561			

B. Historical Statistics - Active Employee Insurance - 2008 and Later (cont'd)

Overhead Cost									
_	Insurance			State	Federal		State Internal	Audit/	Interest
	Company	Reinsurance	Risk	Premium	Income		Administration	Consultant	Credits/
<u>Year</u>	<u>Expense</u>	<u>Expense</u>	<u>Charge</u>	<u>Tax</u>	<u>Tax</u>	<u>Total</u>	<u>Expense</u>	<u>Charge</u>	<u>Charges</u>
2017	\$781,916	\$3,355	\$0	\$373,676	\$5,839	\$1,164,784	\$204,408	\$0	\$42,171
2016	768,301	3,297	0	367,169	5,523	1,144,290	419,785	0	21,443
2015	758,369	3,255	0	362,422	6,885	1,130,931	198,529	0	40,064
2014	740,816	3,179	0	354,034	6,541	1,104,570	515,107	0	40,569
2013	710,992	3,051	0	339,781	3,025	1,056,849	0	0	39,815
2012	676,289	2,888	0	330,654	1,791	1,011,622	225,516	0	23,343
2011	715,322	3,023	0	366,832	26,714	1,111,891	263,769	3,062	65,019
2010	713,009	3,237	22,909	409,540	58,728	1,207,423	190,230	6,115	114,323
2009	684,771	3,109	45,156	393,321	59,908	1,186,265	180,736	0	143,259
2008	<u>628,596</u>	<u>2,845</u>	<u>48,961</u>	<u>359,241</u>	<u>50,240</u>	<u>1,089,883</u>	<u>126,424</u>	<u>0</u>	<u>224,462</u>
Totals	\$7,178,381	\$31,239	\$117,026	\$3,656,670	\$225,194	\$11,208,508	\$2,324,504	\$9,177	\$754,468

_	Reserves									
-	Premium									
	Disability	Stabilization	Deposit							
<u>Year</u>	Reserve	Reserve	<u>Fund</u>	<u>Total</u>						
2017	\$28,923,282	\$45,498,726	\$12,360,619	\$86,782,627						
2016	29,877,831	39,598,519	11,977,289	81,453,639						
2015	30,352,406	36,418,539	11,580,344	78,351,289						
2014	30,346,336	30,250,604	11,168,671	71,765,611						
2013	28,834,099	26,006,603	10,752,168	65,592,870						
2012	28,511,382	22,123,903	10,326,781	60,962,066						
2011	27,168,853	21,512,559	9,895,287	58,576,699						
2010	25,984,655	18,903,224	9,447,632	54,335,511						
2009	24,488,691	11,882,916	8,981,728	45,353,335						
2008	22,791,938	6,199,293	8,514,260	37,505,491						

_	Interest Credits on Reserves						
<u>-</u>			Premium				
	Disability	Stabilization	Deposit				
<u>Year</u>	Reserve	<u>Reserve</u>	<u>Fund</u>	<u>Total</u>			
2017	\$947,672	\$1,232,486	\$383,330	\$2,563,488			
2016	1,017,821	1,175,511	396,945	2,590,277			
2015	1,094,059	1,043,495	411,673	2,549,227			
2014	1,105,436	948,918	416,503	2,470,857			
2013	1,151,615	860,366	425,387	2,437,368			
2012	1,176,622	869,957	431,494	2,478,073			
2011	1,222,715	818,146	447,655	2,488,516			
2010	1,265,665	567,381	465,904	2,298,950			
2009	1,245,596	315,544	467,468	2,028,608			
2008	<u>1,184,569</u>	<u>0</u>	<u>457,035</u>	<u>1,641,604</u>			
Totals	\$11,411,770	\$7,831,804	\$4,303,394	\$23,546,968			

C. Cumulative Financial Experience on Employer Aviation AD&D Insurance - 2011 through 2017

Employer Contribution		\$ 1,217,437
AD&D Claims Pooled Claims Pool Charge Catastrophic Loss Credit	\$ 0 0 86,005 0	
Total Claim Charges		\$ 86,005
Stabilization Reserve on 12-31-2017		\$ 1,198,276
Payments to State		
State Premium Tax	\$24,348_	
Total		\$ 24,348
Payment from Stabilization Reserve for Premiums		\$ 0
Excess of Disbursement and Reserves over Premi	ium	\$ 91,192
Risk Charge	\$8,218_	
Total	\$ 8,218	
Interest Credited to Plan	99,410	
Interest Credited to Plan Less Cost		\$ 91,192

D. Historical Statistics - Employer Aviation AD&D Insurance

<u>Year</u>	Employer Contributions	Death <u>Losses</u>	Pooled <u>Claims</u>	Pool <u>Charge</u>	Total <u>Claim Charges</u>
2017	\$184,074	\$0	\$0	\$11,990	\$11,990
2016	182,752	0	0	11,990	11,990
2015	182,904	0	0	12,405	12,405
2014	180,626	0	0	12,405	12,405
2013	174,759	0	0	12,405	12,405
2012	171,906	0	0	12,405	12,405
2011	<u>140,416</u>	<u>0</u>	<u>0</u>	<u>12,405</u>	<u>12,405</u>
Totals	\$1,217,437	\$0	\$0	\$86,005	\$86,005

	Overhead Cost						
		Catastrophic	State				
	Risk	Loss	Premium				
<u>Year</u>	<u>Charge</u>	Credit	<u>Tax</u>	<u>Total</u>			
2017	\$1,242	\$0	\$3,681	\$4,923			
2016	1,234	0	3,655	4,889			
2015	1,235	0	3,658	4,893			
2014	1,219	0	3,613	4,832			
2013	1,180	0	3,495	4,675			
2012	1,160	0	3,438	4,598			
2011	<u>948</u>	<u>0</u>	2,808	<u>3,756</u>			
Totals	\$8,218	\$0	\$24,348	\$32,566			

		Interest Credits			
		On	Current		
	Stabilization	Stabilization	Premium Less		
<u>Year</u>	<u>Reserve</u>	Reserve	<u>Charges</u>		
2017	\$1,198,276	\$27,080	\$901		
2016	1,003,134	22,576	885		
2015	813,800	17,961	916		
2014	629,317	13,058	902		
2013	451,968	8,266	867		
2012	285,156	4,352	857		
2011	125,044	<u>0</u>	<u>789</u>		
Totals		\$93,293	\$6,117		

E. Cumulative Financial Experience on Spouse and Dependent Insurance - 19	81 t	hrough 2017
Employee Contribution	\$	33,882,189
Death Claims \$ 31,474,569 Living Benefit Claims 190,000 Conversion Charge 264,915 Catastrophic Loss Credit (313,347)		
Total Claim Charges	\$	31,616,137
Stabilization Reserve on 12-31-2017	\$	869,725
Payments to State		
State Premium Tax \$ 677,644 State Internal Administration Expense 1,436,269 Audit/Consultant Service Charge 15,767		
Total	\$	2,129,680
Payment from Stabilization Reserve for Premiums	\$	35,399
Excess of Disbursement and Reserves over Premium	\$	768,752
Minnesota Life Expenses \$ 617,042 Risk Charge \$ 60,795 Federal Income Tax Charge \$ 65,947		
Total \$ 743,784		
Interest Credited to Plan 1,512,536		
Interest Credited to Plan Less Cost	\$	768,752

F. Historical Statistics - Spouse and Dependent Insurance

<u>Year</u>	Employee Contributions	Death <u>Losses</u>	Living Benefits	Conversion Costs	Total <u>Claim Charges</u>
2017	\$1,201,756	\$841,765	\$40,000	\$8,040	\$889,805
2016	1,193,323	966,262	20,000	13,800	1,000,062
2015	1,204,063	886,808	0	15,600	902,408
2014	1,216,922	1,071,247	20,000	15,120	1,106,367
2013	1,221,519	1,308,985	20,000	5,340	1,334,325
2012	1,233,041	1,027,236	0	7,200	1,034,436
2011	1,275,001	1,241,135	20,000	1,200	1,262,335
2010	1,253,513	939,101	20,000	0	959,101
2009	1,052,748	1,115,936	0	0	1,115,936
2008	1,038,545	1,182,121	20,000	0	1,202,121
1981- 2007	21,991,758	<u>20,893,973</u>	30,000	<u>198,615</u>	21,122,588
Total	\$33,882,189	\$31,474,569	\$190,000	\$264,915	\$31,929,484

			(Overhead Cost				
_	Insurance		Catastrophic	State	Federal		State Internal	Audit/
	Company	Risk	Loss	Premium	Income		Administration	Consultant
<u>Year</u>	<u>Expense</u>	<u>Charge</u>	<u>Credit</u>	<u>Tax</u>	<u>Tax</u>	<u>Total</u>	<u>Expense</u>	<u>Charge</u>
2017	\$22,232	\$2,404	\$0	\$24,035	\$237	\$48,908	\$79,932	\$0
2016	22,076	2,387	0	23,866	335	48,664	91,391	0
2015	22,275	2,408	0	24,081	644	49,408	38,029	0
2014	22,513	2,434	0	24,338	961	50,246	113,603	0
2013	22,598	2,443	0	24,430	1,048	50,519	0	0
2012	22,811	2,466	0	24,661	1,108	51,046	52,096	0
2011	23,588	2,550	0	25,500	1,595	53,233	69,352	221
2010	23,876	2,507	0	25,070	1,567	53,020	36,037	452
2009	24,213	2,105	0	21,055	(430)	46,943	43,980	0
2008	23,887	2,077	0	20,771	(473)	46,262	24,797	0
1981- 2007	<u>386,973</u>	<u>37,014</u>	(313,347)	<u>439,837</u>	<u>59,355</u>	<u>609,832</u>	<u>887,052</u>	<u>15,094</u>
Total	\$617,042	\$60,795	(\$313,347)	\$677,644	\$65,947	\$1,108,081	\$1,436,269	\$15,767

			Inte	rest Credits
	Insurance		On	Current
	In Force At	Stabilization	Stabilization	Premium Less
<u>Year</u>	End of Year	<u>Reserve</u>	Reserve	<u>Charges</u>
2017	\$559,785,000	\$869,725	\$18,037	\$1,869
2016	568,225,000	666,708	16,601	1,604
2015	566,585,000	595,297	11,647	3,276
2014	570,825,000	366,156	13,328	1,186
2013	562,840,000	404,936	18,683	1,354
2012	561,610,000	548,224	17,311	2,006
2011	567,755,000	433,444	24,058	1,695
2010	601,900,000	517,831	18,277	5,463
2009	605,205,000	289,188	26,401	3,383
2008	594,715,000	413,515	37,004	2,552
1981- 2007	592,020,000	723,260	<u>1,165,831</u>	<u>120,970</u>
Total			\$1,367,178	\$145,358

G. Cumulative Financial Experience on Retiree Insurance - 2008 through 2017

Retiree Contributions			\$	35,000,750
State Contributions			_	13,748,121
Total Premium			\$	48,748,871
Reserve Brought Forward on January 1, 2008			\$	329,768,061
Death Claims AD&D Claims Living Benefit Claims Pooled Claims Pool Charge Conversion Charge Catastrophic Loss Credit	\$	162,462,592 1,100,673 426,250 (15,007) 780,291 0		
Total Claim Charges			\$	164,754,799
Contingent Liability Reserve on 12-31-2017 Premium Deposit Fund on 12-31-2017	\$	0 351,972,292		
Total			\$	351,972,292
Payments to State				
State Premium Tax State Internal Administration Expense Actuarial Service Charge	\$	3,464,496 448,009 160,240		
Total			\$	4,072,745
Withdrawals of Postretirement Life Insurance Values to Pay Health and Long-Term Care Insurance Premiums			\$	7,098,824
Excess of Disbursement and Reserves Over Premium and Reserve Brought Forward on January 1, 2008			\$	149,381,728
Minnesota Life Expenses Reinsurance Expense Risk Charge Federal Income Tax Charge	\$	3,928,169 8,342 253,174 62,328		
Total	\$	4,252,013		
Interest Credited to Plan	-	153,633,741		
Interest Credited to Plan Less Cost			\$	149,381,728

H. Historical Statistics - Retiree Insurance - 2008 and Later

	Premium						
	Insurance			Pre-Age 65	State		
V	at End o			Retiree	Contributions for	Total	
<u>Year</u>	Pre-Age 65	Post-Age 65		Contributions	Active Employees	Premium	
2017	1,001,470,000	735,296,500		\$3,609,284	\$1,332,953	\$4,942,237	
2016	1,002,871,000	685,321,832		3,604,916	1,318,862	4,923,778	
2015	972,832,000	628,842,832		3,400,362	1,317,549	4,717,911	
2014	934,984,000	581,764,582		3,356,082	1,299,230	4,655,312	
2013	957,904,000	536,245,750		3,485,410	1,254,575	4,739,985	
2012	1,002,851,000	493,214,250		3,741,193	1,231,835	4,973,028	
2011	1,049,228,000	449,896,500		3,803,006	1,509,822	5,312,828	
2010	807,734,000	396,600,250		3,531,803	1,563,881	5,095,684	
2009	767,497,000	371,714,750		3,316,473	1,514,440	4,830,913	
2008	740,099,000	348,802,000		<u>3,152,221</u>	<u>1,404,974</u>	<u>4,557,195</u>	
Totals				\$35,000,750	\$13,748,121	\$48,748,871	
				<u>Claims</u>			
		Death	Losses				
· -	D A	D	D+ A CF		D A	D+ A 05	T-4-1
<u>Year</u>	Pre-Age 65 Life	Pre-Age 65 <u>AD&D</u>	Post -Age 65 <u>Life</u>	<u>Total</u>	Pre-Age 65 Living Benefits	Post-Age 65 Living Benefits	Total <u>Claims</u>
<u>ı caı</u>	LIIE	ADQD	LIIE	<u>10tai</u>	Living Denents	LIVING Denents	Clairis
2017	\$2,964,161	\$0	\$16,167,529	\$19,131,690	\$196,000	\$60,000	\$19,387,690
2016	6,569,324	54,024	13,896,647	20,519,995	39,000	0	20,558,995
2015	3,864,466	0	14,179,633	18,044,099	0	20,000	18,064,099
2014	3,740,124	92,172	14,772,467	18,604,763	0	24,500	18,629,263
2013	4,492,915	125,384	12,894,445	17,512,744	0	17,000	17,529,744
2012	4,842,877	82,782	12,039,820	16,965,479	0	0	16,965,479
2011	3,904,690	290,730	9,880,703	14,076,123	0	0	14,076,123
2010	3,290,890	238,764	10,472,997	14,002,651	0	0	14,002,651
2009 2008	2,558,329 <u>3,942,991</u>	216,817	9,299,657 <u>8,687,927</u>	12,074,803 <u>12,630,918</u>	0 <u>0</u>	50,250 <u>19,500</u>	12,125,053 <u>12,650,418</u>
2000	<u>3,942,991</u>	<u>0</u>	0,007,927	12,030,910	<u>U</u>	<u>19,500</u>	12,030,410
Totals	\$40,170,767	\$1,100,673	\$122,291,825	\$163,563,265	\$235,000	\$191,250	\$163,989,515
	Total	Conversion	Pooled	Pool	Total		
Year	<u>Claims</u>	<u>Charge</u>	Claims	<u>Charge</u>	Claim Charges		
	<u></u> -			 -			
2017	\$19,387,690	\$0	\$0	\$150,868	\$19,538,558		
2016	20,558,995	0	0	127,215	20,686,210		
2015	18,064,099	0	(15,007)	105,318	18,154,410		
2014	18,629,263	0	0	91,464	18,720,727		
2013	17,529,744	0	0	75,289	17,605,033		
2012	16,965,479	0	0	70,191	17,035,670		
2011	14,076,123	0	0	59,925	14,136,048		
2010	14,002,651	0	0	44,041	14,046,692		
2009	12,125,053	0	0	36,768	12,161,821		
2008	<u>12,650,418</u>	<u>0</u>	<u>0</u>	<u>19,212</u>	<u>12,669,630</u>		
Totals	\$163,989,515	\$0	(\$15,007)	\$780,291	\$164,754,799		

H. Historical Statistics - Retiree Insurance - 2008 and Later (cont'd)

Overhead Cost									
<u>-</u>	Insurance			State	Federal		Actuarial	State Internal	Interest
	Company	Reinsurance	Risk	Premium	Income		Service	Administration	Credits/
<u>Year</u>	<u>Expense</u>	<u>Expense</u>	<u>Charge</u>	<u>Tax</u>	<u>Tax</u>	<u>Total</u>	<u>Charge</u>	<u>Expense</u>	<u>Charges</u>
2017	\$479,402	\$888	\$16,991	\$410,171	\$1,135	\$908,587	\$21,500	\$41,662	\$1,757
2016	447,825	885	19,203	433,427	1,877	903,217	0	85,560	3,637
2015	433,768	847	16,007	380,473	761	831,856	0	40,464	3,064
2014	430,059	836	15,476	393,878	1,385	841,634	36,000	104,989	9,514
2013	407,919	851	14,631	368,093	3,239	794,733	12,000	0	7,098
2012	397,630	868	14,728	357,523	6,785	777,534	22,000	45,964	4,922
2011	373,492	875	100,229	299,388	12,431	786,415	0	53,761	6,767
2010	341,652	806	22,142	295,725	12,331	672,656	41,435	38,772	13,322
2009	317,468	764	17,105	260,348	11,673	607,358	0	36,837	24,523
2008	<u>298,953</u>	<u>722</u>	<u>16,662</u>	<u>265,470</u>	<u>10,711</u>	<u>592,518</u>	<u>27,305</u>	<u>0</u>	<u>15,954</u>
Totals	\$3,928,168	\$8,342	\$253,174	\$3,464,496	\$62,328	\$7,716,508	\$160,240	\$448,009	\$90,558

_		Reserves	
	Contingent	Premium	
	Liability	Deposit	
<u>Year</u>	Reserve	<u>Fund</u>	<u>Total</u>
2017	\$0	\$351,972,292	\$351,972,292
2016	0	357,495,643	357,495,643
2015	0	363,023,352	363,023,352
2014	0	364,891,996	364,891,996
2013	0	366,652,383	366,652,383
2012	0	366,110,007	366,110,007
2011	0	363,777,660	363,777,660
2010	0	357,229,357	357,229,357
2009	0	349,424,958	349,424,958
2008	6,269,070	332,961,288	339,230,358

	Inte	rest Credits on Re	serves	
•	Contingent	Premium		Withdrawals to
	Liability	Deposit		Pay Health and
<u>Year</u>	Reserve	<u>Fund</u>	<u>Total</u>	LTC Premiums
2017	\$0	\$11,254,391	\$11,254,391	\$1,211,428
2016	0	12,269,121	12,269,121	1,049,258
2015	0	13,290,039	13,290,039	852,928
2014	0	14,036,549	14,036,549	758,413
2013	0	14,923,289	14,923,289	716,230
2012	0	15,739,647	15,739,647	504,082
2011	0	16,791,512	16,791,512	586,579
2010	0	17,976,631	17,976,631	481,683
2009	351,100	18,252,922	18,604,022	458,842
2008	<u>772,679</u>	<u>17,885,303</u>	<u>18,657,982</u>	<u>479,381</u>
Totals	\$1,123,779	\$152,419,404	\$153,543,183	\$7,098,824

I. Cumulative Financial Experience on Employee Insurance (Active Employees and Retirees) - 1958 through 2007 **Employee Contributions** \$ 304,103,381 State Contributions Basic Plan 82,390,479 Supplemental Plan 36,340,802 118,731,281 **Total Premium** \$ 422,834,662 **Death Claims** 398,102,916 AD&D Claims 20,768,912 Living Benefit Claims 4,066,000 Increase in Disability Claim Reserve 20,958,083 **Pooled Claims** (119,478)Pool Charge 1,065,368 Conversion Charge 362,072 Catastrophic Loss Credit 0 **Total Claim Charges** \$ 445,203,873 Contingent Liability Reserve on 12-31-2007 14,533,673 Premium Deposit Fund on 12-31-2007 323,291,613 Total \$ 337,825,286 Payments to State State Premium Tax 9.230.199 State Internal Administration Expense 3.885.022 Actuarial Service Charge 38,388 Audit/Consultant Service Charge 51,734 Legal Expense 39,790 Total \$ 13,245,133 Payment from Contingent Liability Reserve for Premiums 3,530,569 Withdrawals of Postretirement Life Insurance Values to Pay Health and Long-Term Care Insurance Premiums 4,522,251 Excess of Disbursement and Reserves Over Premium \$ 381,492,450 Minnesota Life Expenses 10,830,892 Reinsurance Expense 180,635 Risk Charge 1,584,835 Federal Income Tax Charge 971,199 Total 13,567,561 Interest Credited to Plan 395,060,011

Interest Credited to Plan Less Cost

\$ 381,492,450

J. Historical Statistics - Active Employee and Retiree Insurance - through 2007

Premium

					State Contrib	outions	
	Insurance In Force	e at End of Year		Employee	Basic	Supplemental	Total
Year	Pre-Retirement	Post-Retirement	<u>Year</u>	Contributions	<u>Plan</u>	<u>Plan</u>	<u>Premium</u>
2007	7,803,344,000	320,232,500	2007	\$16,156,764	\$2,955,765	\$1,232,334	\$20,344,863
2006	7,329,155,000	295,682,250	2006	14,974,540	2,779,424	1,163,077	18,917,041
2005	6,999,101,000	277,559,750	2005	14,094,642	2,675,764	1,126,915	17,897,321
2004	6,760,990,000	261,620,000	2004	13,436,167	2,609,471	1,103,938	17,149,576
2003	6,377,422,000	248,541,250	2003	13,564,722	2,682,055	1,139,067	17,385,844
2002	6,100,363,000	234,159,250	2002	13,377,914	2,672,759	1,141,597	17,192,270
2001	5,601,752,000	219,827,750	2001	12,057,622	2,448,473	1,054,664	15,560,759
2000	4,965,080,000	207,848,750	2000	10,944,386	2,273,603	985,914	14,203,903
1999	4,593,228,000	195,619,000	1999	10,249,171	2,217,950	941,962	13,409,083
1998	4,252,269,000	184,580,000	1998	10,102,741	2,235,849	970,180	13,308,770
1997	3,681,951,000	176,424,750	1958-1997	<u>175,144,712</u>	56,839,366	<u>25,481,154</u>	<u>257,465,232</u>
			Total	\$304,103,381	\$82,390,479	\$36,340,802	\$422,834,662

<u>Claims</u>

		Death Los					
	Pre-	Pre-	Post-				
	Retirement	Retirement	Retirement		Living	Disability	Total
<u>Year</u>	<u>Life</u>	AD&D	<u>Life</u>	<u>Total</u>	<u>Benefits</u>	<u>Losses</u>	<u>Claims</u>
2007	\$15,424,394	\$578,367	\$8,774,275	\$24,777,036	\$512,000	\$1,047,671	\$26,336,707
2006	14,953,112	1,119,759	8,480,232	24,553,103	576,000	2,314,751	27,443,854
2005	13,479,300	1,788,385	7,520,973	22,788,658	340,500	2,283,776	25,412,934
2004	13,872,722	940,858	7,554,908	22,368,488	601,500	(602,109)	22,367,879
2003	14,695,689	780,605	6,867,758	22,344,052	488,500	1,435,671	24,268,223
2002	11,458,035	1,041,829	6,811,293	19,311,157	242,500	690,982	20,244,639
2001	10,842,443	469,215	6,156,890	17,468,548	361,500	1,312,119	19,142,167
2000	9,303,701	738,921	6,183,157	16,225,779	166,000	714,191	17,105,970
1999	11,419,416	1,166,970	5,990,105	18,576,491	77,250	672,318	19,326,059
1998	10,449,799	1,216,350	5,146,711	16,812,860	141,000	1,497,976	18,451,836
1958- 1997	152,380,988	10,927,653	50,337,015	213,645,656	<u>559,250</u>	9,590,737	223,795,643
Total	\$278,279,599	\$20,768,912	\$119,823,317	\$418,871,828	\$4,066,000	\$20,958,083	\$443,895,911
	Total	Conversion	Pooled	Pool			Total
<u>Year</u>	<u>Claims</u>	<u>Charge</u>	<u>Claims</u>	<u>Charge</u>			Claim Charges
2007	\$26,336,707	\$0	\$0	\$298,751			\$26,635,458
2006	27,443,854	0	0	243,030			27,686,884
2005	25,412,934	0	0	213,495			25,626,429
2004	22,367,879	0	(40,116)	172,047			22,499,810
2003	24,268,223	0	(79,362)	138,045			24,326,906
2002	20,244,639	0	0	0			20,244,639
2001	19,142,167	1,800	0	0			19,143,967
2000	17,105,970	5,400	0	0			17,111,370
1999	19,326,059	14,820	0	0			19,340,879
1998	18,451,836	21,000	0	0			18,472,836
1958- 1997	<u>223,795,643</u>	<u>319,052</u>	<u>0</u>	<u>0</u>			<u>224,114,695</u>
Total	\$443,895,911	\$362,072	(\$119,478)	\$1,065,368			\$445,203,873

J. Historical Statistics - Active Employee and Retiree Insurance - through 2007 (cont'd)

	Overhead Cost										
•	Insurance		Overnoud	State	Federal		State Internal	Actuarial	Audit/		Interest
	Company	Reinsurance	Risk	Premium	Income		Administration		Consultant	Legal	Credits/
<u>Year</u>	Expense	Expense	<u>Charge</u>	<u>Tax</u>	<u>Tax</u>	<u>Total</u>	Expense	Charge	Charge	Expense	Charges
<u>1 Car</u>	LAPCHISC	LAPCHISC	Onarge	TUX	IUX	<u>rotar</u>	LXPCHSC	Onlarge	Onlarge	LXPCIISC	Onlarges
2007	\$868,193	\$3,255	\$48,189	\$543,582	\$46,634	\$1,509,853	\$249,586	\$23,937	\$0	\$0	\$90,476
2006	810,168	3,027	34,416	566,203	39,071	1,452,885	223,343	0	8,698	0	86,556
2005	761,403	2,864	17,262	523,708	34,781	1,340,018	208,373	0	0	0	99,255
2004	723,308	2,703	0	459,084	33,016	1,218,111	181,758	905	0	39,790	47,974
2003	681,447	3,043	6,533	495,966	42,214	1,229,203	253,423	1,700	18,633	0	83,487
2002	640,332	4,893	60,795	411,517	46,884	1,164,421	150,150	1,745	0	0	46,486
2001	576,218	5,323	56,204	387,097	34,496	1,059,338	107,850	1,650	0	0	67,341
2000	532,568	13,125	52,944	344,786	28,148	971,571	38,008	1,402	8,727	0	53,830
1999	472,366	14,071	26,028	389,658	33,123	935,246	0	1,391	0	0	49,296
1998	414,812	13,309	56,964	375,376	46,762	907,223	137,490	1,153	0	0	94,563
1958- 1997	4,350,077	115,022	1,225,500	4,733,222	586,070	11,009,891	2,335,041	4,505	15,676	<u>0</u>	1,836,172
1000 1007	1,000,011	110,022	1,220,000	1,100,222	000,010	11,000,001	2,000,011	1,000	10,010	<u> </u>	1,000,112
Total	\$10,830,892	\$180,635	\$1,584,835	\$9,230,199	\$971,199	\$22,797,760	\$3,885,022	\$38,388	\$51,734	\$39,790	\$2,555,436
_				Reserves				_			
			Contingent		Premium						
	Disability		Liability		Deposit						
<u>Year</u>	Reserve		Reserve		<u>Fund</u>		<u>Total</u>				
2007	\$20,958,083		\$14,533,673		\$323,291,613		\$358,783,369				
2006	19,910,412		22,320,164		303,582,094		345,812,670				
2005	17,595,661		29,423,280		288,655,047		335,673,988				
2004	15,311,885		35,338,788		273,479,546		324,130,219				
2003	15,913,994		40,413,306		256,750,262		313,077,562				
2002	14,478,323		44,476,613		241,655,917		300,610,853				
2001	13,787,341		48,211,931		223,143,852		285,143,124				
2000	12,475,222		50,992,413		206,330,935		269,798,570				
1999	11.761.031		53.505.251		189.675.567		254,941,849				
1998	11,088,713		55,999,169		177,584,817		244,672,699				
1997	9,590,737		57,505,153		166,585,300		233,681,190				
			1	O 174 D							
-				Credits on Re							Withdrawala to
	Disability		Contingent Liability		Premium Deposit						Withdrawals to Pay Health and
Voor	,		•		Fund		Total				LTC Premiums
<u>Year</u>	Reserve		Reserve		<u>runa</u>		<u>10tai</u>				LTC Premiums
2007	\$1,149,269		\$1,305,400		\$17,715,113		\$20,169,782				\$263,259
2006	975,149		1,681,973		16,073,075		18,730,197				538,053
2005	890,137		1,904,463		15,960,456		18,755,056				316,819
2004	937,441		2,796,523		15,200,843		18,934,807				537,217
2003	948,032		3,105,807		15,745,232		19,799,071				407,499
2002	938,590		3,352,789		15,343,979		19,635,358				536,412
2001	890,592		3,621,720		14,805,993		19,318,305				601,165
2000	837,693		3,782,331		13,637,481		18,257,505				241,630
1999	745,309		3,732,430		12,112,018		16,589,757				173,788
1998	653,225		3,848,131		11,326,953		15,828,309				219,407
1958- 1997	10,979,387		81,367,379		114,139,662		206,486,428				687,002
Total	\$19,944,824		\$110,498,946		\$262,060,805		\$392,504,575				\$4,522,251

WISCONSIN LOCAL GOVERNMENTS

V. <u>Wisconsin Local Government Plan - Active Employees*</u>

Report on operations for 2017, the fifty-eighth year of the plan.

A. Employee Coverage

	<u>12-31-2016</u>	<u>12-31-2017</u>
1. Employees Insured for Pre-Retirement Insurance (1)		
Basic Plan Supplemental Plan Additional Plan	75,681 26,140 33,111	75,719 26,219 33,063
2. Pre-Retirement Life and AD&D Insurance (1)		
Basic Plan Supplemental Plan Additional Plan	\$ 4,047,600,000 1,490,052,000 4,256,548,000	\$ 4,100,297,000 1,517,765,000 4,348,918,000
B. Spouse and Dependent Coverage		
1. Employees Insured	32,810	32,786
2. Estimated Spouse and Dependent Life Insurance	\$ 803,760,000	\$ 795,935,000

- All active employees at ages under 70.
- All active employees at age 70 and over who continue to participate in the additional life insurance benefit.
- Spouses and dependents of active employees.

^{*}The active employee plan financial report includes:

C. Premium Summary

Employee Contributions

Basic Plan	\$ 6,515,833	
Supplemental Plan	2,818,690	
Additional Plan	7,581,780	
Spouse and Dependent Plan	1,184,896	
		\$ 18,101,199
Employer Contributions to Premium		
Basic Plan	\$ 1,782,906	
Supplemental Plan	20,525_	
		1,803,431
Total Premium		\$ 19,904,630

D. Employee Claims

	Basic Plan	Supplemental Plan	Additional Plan	Total
Life	\$ 4,067,749	\$ 1,419,384	\$ 3,719,085	\$ 9,206,218
AD&D	131,318	71,070	225,689	428,077
Living Benefit	165,000	135,000	405,000	705,000
Disability	(419,551)	(20,949)	195,002	(245,498)
Total	\$ 3,944,516	\$ 1,604,505	\$ 4,544,776	\$ 10,093,797

E. Spouse and Dependent Claims

	_	Spouse	 Dependent	
Life Living Benefit	\$ _	960,780 0	\$ 70,187 0	\$ 1,030,967 0
Total	\$	960,780	\$ 70,187	\$ 1,030,967

F. Financial Experience - Active Employee Insurance

1. Premium				
Employee Contributions Employer Contributions	\$_	16,916,303 1,803,431		
Total Premium			\$	18,719,734
2. Claim Charges				
Death Claims AD&D Claims Living Benefit Claims Pooled Claims Pool Charge Increase in Disability Claim Reserve Conversion Charge Catastrophic Loss Credit	\$	9,206,218 428,077 705,000 (12,352) 168,914 (245,498) 9,000 0		
Total Claim Charges			\$	10,259,359
3. Expense Charges				
Minnesota Life Expenses Reinsurance Expense Risk Charge	\$	1,504,318 3,335 12,699		
Total Expense Charges			\$	1,520,352
4. Tax Charges				
State Premium Tax Federal Income Tax	\$_	374,395 11,793		
Total Tax Charges			\$	386,188
5. Interest Credits/Charges				
On Premium On Disability Claim Reserve On Claims Paid On Expense Charges, Pool Charge & Conversion Charge	\$	106,759 785,232 (44,071) (11,444)		
Total Interest Credits/Charges			\$	836,476
6. State Internal Administration Expense			\$	204,407
7. Audit/Consultant Service Charge			\$	0
			_	

7,185,904

8. Contribution to Stabilization Reserve [(1)-(2)-(3)-(4)+(5)-(6)-(7)]

G. Reserve Summary

Н.

1. Premium Deposit Fund		
Balance on 12-31-2016	\$	11,825,627
Interest Credit		365,415
Withdrawals on 12-31-2017	_	0
Balance on 12-31-2017	\$	12,191,042
Stabilization Reserve		
Balance on 12-31-2016	\$	47,954,165
Interest Credit		1,410,415
Contribution on 12-31-2017		7,185,904
Withdrawals on 12-31-2017	_	0
Balance on 12-31-2017	\$	56,550,484
Interest Rate on Premium Deposit Fund and Stabilization Reserve in 2017		2.97%
Stop-Loss Calculation for Active Employee Insurance		
Stop-Loss Limit	\$	24,593,288
Claim Charges Expense Charges	\$_	10,402,844 1,894,747
Total Charges	\$	12,297,591
Catastrophic Loss Credit	\$	0

I. Financial Experience - Spouse and Dependent Insurance

J.

1. Premium	\$	1,184,896
2. Claim Charges Death Claims \$ 1,030,967 Living Benefit Claims Conversion Charge 4,800		
Total Claim Charges	\$	1,035,767
3. Expense Charges Minnesota Life Expenses \$ 62,799 Risk Charge 2,370		
Total Expense Charges	\$	65,169
4. Tax Charges State Premium Tax Federal Income Tax (913)		
Total Tax Charges	\$	22,785
5. Interest Credits/Charges On Premium \$ 6,840 On Claims Paid (4,877) On Expense Charges & Conversion Charge (863)		
Total Interest Credits/Charges	\$	1,100
6. State Internal Administration Expense	\$	79,932
7. Audit/Consultant Service Charge	\$	0
8. Addition to Stabilization Reserve [(1)-(2)-(3)-(4)+(5)-(6)-(7)]	\$	(17,657)
 Stabilization Reserve Stabilization Reserve on 12-31-2016 Addition to Reserve on 12-31-2017 I Interest on Stabilization Reserve in 2017 	\$	1,359,483 (17,657) 42,135
Stabilization Reserve on 12-31-2017	\$	1,383,961
Stop-Loss Calculation for Spouse and Dependent Insurance		
Stop-Loss Limit	\$	1,718,099
Claim Charges Expense Charges	_	1,035,648 88,867
Total Charges	\$	1,124,515
Catastrophic Loss Credit	\$	0

VI. Wisconsin Local Government Plan - Retirees*

Report on operations for 2017, the fifty-eighth year of the plan.

A. Retiree Coverage

	<u>12-31-2016</u>	12-31-2017
1. Retirees Insured for Pre-Age 65 Insurance		
Basic Plan Supplemental Plan Additional Plan 2. Pre-Age 65 Life and AD&D Insurance	10,571 2,023 3,083	10,195 2,039 3,104
Basic Plan Supplemental Plan Additional Plan	\$ 658,413,000 130,074,000 352,707,000	\$ 647,073,000 128,599,060 369,673,033
3. Retirees Insured for Post-Age 65 Insurance	31,927	33,644
4. Post-Age 65 Insurance	\$ 472,046,250	\$ 509,135,750

- All retirees at age 65 and over, and all active employees at age 70 and over, who receive a post-retirement life insurance benefit with no further premium payments.
- All retirees under age 65 who receive post-retirement life insurance benefits based on continued premium payments.
- All funding contributions by employers toward future post-retirement life insurance for currently active employees.

^{*}The retiree plan financial report includes:

B. Premium Summary

Pre-Age 65 Retiree Contributions

Basic Plan	\$ 4,456,970	
Supplemental Plan	308,834	
Additional Plan	935,341_	
		\$ 5,701,145
Employer Contributions to Premium Deposit Fund		\$ 1,899,029
Total Premium		\$ 7,600,174

C. Retiree Claims

Living Benefit

Total

		-	Basic Plan	-	Supplemental Plan	_	Additional Plan	 Total
1.	Pre-Age 65 Life and AD&D	lns	surance					
	Life AD&D Living Benefit	\$_	2,215,692 (7,819) 59,000	\$	361,297 66,181 0	\$	1,062,865 0 0	\$ 3,639,854 58,362 59,000
	Total	\$	2,266,873	\$	427,478	\$	1,062,865	\$ 3,757,216
2.	Post-Age 65 Life Insurance	;						
	Life	\$	8.993.031					\$ 8.993.031

0

\$ 8,993,031

0

\$ 8,993,031

D. Financial Experience - Pre-Age 65 Retiree Insurance

1. Premium				
Pre-Age 65 Contributions	\$	5,701,145		
Total Premium			\$	5,701,145
2. Claim Charges				
Death Claims AD&D Claims Living Benefit Claims Pooled Claims Pool Charge Conversion Charge Catastrophic Loss Credit Total Claim Charges	\$	3,639,854 58,362 59,000 0 23,422 0	\$	3,780,638
Expense Charges			φ	3,760,036
Minnesota Life Expenses Reinsurance Expense Risk Charge	\$	610,750 1,354 830		
Total Expense Charges			\$	612,934
4. Tax Charges				
State Premium Tax Federal Income Tax	\$_	114,023 10,699		
Total Tax Charges			\$	124,722
5. Interest Credits/Charges				
On Premium On Claims Paid On Expense Charges, Pool Charge & Conversion Charge	\$_	30,165 (12,967) (4,195)		
Total Interest Credits/Charges			\$	13,003
6. State Internal Administration Expense			\$	56,360
7. Actuarial Service Charge			\$	21,500
8. Experience Credit [(1)-(2)-(3)-(4)+(5)-(6)-(7)]			\$	1,117,994

The Experience Credit is deposited in the Contingent Liability Reserve.

E. Financial Experience - Post-Age 65 Retiree Insurance

Premium Deposit Fund on 12-31-2016	\$	205,048,477
Contributions for Active Employees During 2017		1,899,029
Withdrawals on 12-31-2017		0
Withdrawals of Postretirement Life Insurance Values to pay Health and Long-Term Care Insurance Premiums		0
Interest on Premium Deposit Fund in 2017	_	6,365,194
Premium Deposit Fund on 12-31-2017	\$	213,312,700
2. Contingent Liability Reserve		
Contingent Liability Reserve on 12-31-2016	\$	38,097,058
Contributions on 12-31-2017		1,117,994
Post-Age 65 Death Claims		(8,993,031)
Minnesota Life Expenses		(332,601)
State Premium Tax		(190,470)
Risk Charge		(7,418)
Interest on Contingent Liability Reserve in 2017	_	1,227,058
Contingent Liability Reserve on 12-31-2017	\$	30,918,590
Interest Rate on Premium Deposit Fund and Contingent Liability Reserve in 2017		3.16%
		0,

F. Summary of Assets and Liabilities for Post-Retirement Benefits on December 31

	<u>2016</u>	<u>2017</u>
1. Assets		
 a. Retiree Premium Deposit Fund b. Active Premium Deposit Fund Available for Post-Retirement Funding c. Contingent Liability Reserve d. Active Stabilization Reserve Available for Post-Retirement Funding 	\$ 205,048,477 11,825,627 38,097,058 43,363,664	213,312,700 12,191,042 30,918,590 51,870,550
e. Total	\$ 298,334,826	\$ 308,292,882
2. Liabilities		
a. Post-Age 65 Retireesb. Pre-Age 65 Retireesc. Active Employees	\$ 195,229,789 43,672,642 47,167,511	219,338,916 44,349,260 28,192,564
d. Total	\$ 286,069,942	\$ 291,880,740
Unfunded Accrued Liability [2(d) - 1(e)]	\$ (12,264,884)	\$ (16,412,142)
4. Total Assets as a Percent of Total Liabilities [1(e)/2(d)]	104.3%	105.6%

Definitions of asset values:

- · Retiree Premium Deposit Fund: total retiree premium deposit fund assets
- Active Premium Deposit Fund Available for Post-Retirement Funding: active premium deposit fund assets in
 excess of the active target reserve level. The target level of active premium deposit fund plus active stabilization
 reserve equals 50% of active plan premium.
- · Contingent Liability Reserve: total contingent liability reserve assets
- Active Stabilization Reserve Available for Post-Retirement Funding: active stabilization reserve assets in excess
 of the active target reserve level. The target level of active premium deposit fund plus active stabilization reserve
 equals 50% of active plan premium.

Definitions of liability values:

- · Post-Age 65 Retirees: present value of future claims
- Pre-Age 65 Retirees: present value of future claims minus present value of future premiums
- Active Employees: present values of future active employment claims and future post-retirement claims for active employees minus present values of future State and employee premium contributions

Funding Assumptions appear on page 61 of this report.

G. Stop-Loss Calculation for Retiree Insurance

Stop-Loss Limit	\$ 21,746,507
Claim Charges Expense Charges	\$ 12,847,551 1,257,446
Total Charges	\$ 14,104,997
Catastrophic Loss Credit	\$ 0

A. Cumulative Financial Experience on Active Employee Insurance - 2008 through 2017

VII. Historical Experience

Employee Contributions		\$	161,534,536
Employer Contributions		_	15,073,566
Total Premium		\$	176,608,102
Reserve Brought Forward on January 1, 2008		\$	7,995,249
Death Claims AD&D Claims Living Benefit Claims Increase in Disability Claim Reserve Pooled Claims Pool Charge Conversion Charge Catastrophic Loss Credit	\$ 95,423,038 7,632,393 5,732,000 8,082,035 (149,125) 814,744 109,080		
Total Claim Charges		\$	117,644,165
Premium Deposit Fund on 12-31-2017 Stabilization Reserve on 12-31-2017	\$ 12,191,042 		
Total		\$	68,741,526
Payments to State			

State Premium Tax	\$	3,532,163	
State Internal Administration Expense		2,324,503	
Actuarial Service Charge		0	
Audit/Consultant Service Charge		13,444	
Research Survey Cost		0	
Total	_		\$ 5,870,110
Excess of Disbursement and Reserves Over Premium and Reserve			
Brought Forward on January 1, 2008			\$ 7,652,450

7,652,450

\$

Minnesota Life Expenses Reinsurance Expense Risk Charge Catastrophic Loss Federal Income Tax Charge	\$	13,560,327 30,141 96,887 0 252,594
Total	\$	13,939,949
Interest Credited to Plan	•	21,592,399
Interest Credited to Plan Less Cost		

Premium

B. Historical Statistics - Active Employee Insurance - 2008 and Later

					Premium	
<u>Year</u>	Insurance in Force at End of Year			Employee Contributions	Employer Contributions	Total <u>Premium</u>
2017 2016 2015 2014 2013 2012 2011 2010 2009 2008	\$9,966,980,000 9,794,200,000 9,368,725,000 9,071,624,000 8,808,111,000 8,309,500,000 8,654,114,000 8,586,067,000 8,280,640,000 7,811,801,000			\$16,916,303 16,642,233 16,019,705 15,627,511 15,302,736 15,569,667 16,740,728 16,895,496 16,275,592 15,544,565	\$1,803,431 1,719,771 1,694,114 1,557,078 1,537,139 1,555,163 1,408,259 1,371,228 1,294,951 1,132,432	\$18,719,734 18,362,004 17,713,819 17,184,589 16,839,875 17,124,830 18,148,987 18,266,724 17,570,543 16,676,997
Totals				\$161,534,536	\$15,073,566	\$176,608,102
			<u>Clair</u>	<u>ms</u>		
	Death	ı Losses				
	Deau	LUSSES		Living	Disability	Total
<u>Year</u>	<u>Life</u>	AD&D	<u>Total</u>	Living <u>Benefits</u>	Disability <u>Losses</u>	<u>Claims</u>
2017 2016 2015 2014 2013 2012 2011 2010 2009 2008	\$9,206,218 7,741,046 10,735,324 9,319,278 10,259,826 8,753,139 8,835,570 10,419,788 8,830,683 11,322,166	\$428,077 545,761 928,547 841,742 1,040,611 674,179 674,431 1,148,439 237,777 1,112,829	\$9,634,295 8,286,807 11,663,871 10,161,020 11,300,437 9,427,318 9,510,001 11,568,227 9,068,460 12,434,995	\$705,000 469,000 1,155,000 908,000 0 642,000 68,000 1,332,000 185,000 268,000	(\$245,498) 1,245,097 610,935 1,484,178 6,079 1,174,943 1,215,476 942,703 1,069,766 578,356	\$10,093,797 10,000,904 13,429,806 12,553,198 11,306,516 11,244,261 10,793,477 13,842,930 10,323,226 13,281,351
Totals	\$95,423,038	\$7,632,393	\$103,055,431	\$5,732,000	\$8,082,035	\$116,869,466
<u>Year</u>	Total <u>Claims</u>	Conversion <u>Charge</u>	Pooled <u>Claims</u>	Pool <u>Charge</u>		Total <u>Claim Charges</u>
2017 2016 2015 2014 2013 2012 2011 2010 2009 2008	\$10,093,797 10,000,904 13,429,806 12,553,198 11,306,516 11,244,261 10,793,477 13,842,930 10,323,226 13,281,351 \$116,869,466	\$9,000 10,920 26,100 0 600 6,900 17,040 11,040 25,380 2,100 \$109,080	(\$12,352) 171 (54,822) 387 (2,331) 0 (80,178) 0 0 0	\$168,914 146,140 122,637 84,519 73,447 71,793 55,483 42,860 25,007 23,944 \$814,744		\$10,259,359 10,158,135 13,523,721 12,638,104 11,378,232 11,322,954 10,785,822 13,896,830 10,373,613 13,307,395 \$117,644,165

Historical	Statistics - Active	e Employee Insu	ırance - 2008 aı Overhead)				
			Overneau	Cosis			_	Audit/	
	Insurance			State	Federal		State Internal		Interest
	Company	Reinsurance	Risk	Premium	Income		Administration	_	Credits/
<u>Year</u>	Expense	Expense	<u>Charge</u>	<u>Tax</u>	<u>Tax</u>	<u>Total</u>	<u>Expense</u>	<u>Charge</u>	<u>Charges</u>
2017	\$1,504,318	\$3,335	\$12,699	\$374,395	\$11,793	\$1,906,540	\$204,407	\$0	\$51,244
2016	1,475,571	3,272	3,382	367,240	11,411	1,860,876	419,785	0	55,218
2015	1,423,482	3,156	0	354,276	8,548	1,789,462	198,529	0	38,566
2014	1,380,953	3,061	0	343,692	7,381	1,735,087	515,107	0	44,679
2013	1,321,269	2,890	0	336,798	8,552	1,669,509	0	0	47,584
2012	1,310,049	2,822	0	342,497	17,592	1,672,960	225,516	0	51,340
2011	1,388,398	2,991	0	362,980	36,880	1,791,249	263,769	5,239	87,014
2010	1,329,765	3,078	24,714	365,334	47,967	1,770,858	190,230	5,955	98,413
2009	1,255,064	2,849	31,721	351,411	50,468	1,691,513	180,736	2,250	147,950
2008	<u>1,171,458</u>	<u>2,687</u>	<u>24,371</u>	333,540	<u>52,002</u>	<u>1,584,058</u>	126,424	<u>0</u>	<u>130,121</u>
Totals	\$13,560,327	\$30,141	\$96,887	\$3,532,163	\$252,594	\$17,472,112	\$2,324,503	\$13,444	\$752,129
		Rese	erves						
			Premium		•				
	Disability	Stabilization	Deposit						
<u>Year</u>	Reserve	<u>Reserve</u>	<u>Fund</u>	<u>Total</u>					
2017	\$25,233,183	\$56,550,484	\$12,191,042	\$93,974,709					
2016	25,478,681	47,954,165	11,825,627	85,258,473					
2015	24,233,584	39,938,189	11,446,930	75,618,703					
2014	23,622,649	35,701,886	11,053,067	70,377,602					
2013	22,138,471	31,467,384	10,651,475	64,257,330					
2012	22,132,392	25,834,701	10,238,389	58,205,482					
2011	20,957,449	20,189,994	9,813,308	50,960,751					

42,405,313

2010	19,141,913	13,232,179	9,311,101	42,403,313
2009	18,799,270	9,368,979	8,910,328	37,078,577
2008	17,729,504	2,772,172	8,447,660	28,949,336
		Interest Credits	on Reserves	
			Premium	
	Disability	Stabilization	Deposit	
<u>Year</u>	Reserve	Reserve	<u>Fund</u>	<u>Total</u>
2017	\$785,232	\$1,410,415	\$365,415	\$2,561,062
2016	804,797	1,232,753	378,697	2,416,247
2015	845,921	1,149,709	393,863	2,389,493
2014	842,622	1,050,910	401,592	2,295,124
2013	887,019	905,946	413,086	2,206,051
2012	904,315	785,652	425,081	2,115,048
2011	935,213	572,680	442,147	1,950,040
2010	984,110	437,826	460,833	1,882,769
2009	985,322	141,104	462,668	1,589,094
2008	982,931	<u>0</u>	452,411	1,435,342
	·	_	·	·
Totals	\$8,957,482	\$7,686,995	\$4,195,793	\$20,840,270

13,292,179

9,371,161

2010

19,741,973

C. Cumulative Financial Experience on Spouse and Dependent Insurance - 1983 through 2017

Employee Contribution			\$ 42,888,809
Death Claims Living Benefit Claims Conversion Charge	\$	39,727,270 235,000 332,145	
Total Claim Charges			\$ 40,294,415
Stabilization Reserve on 12-31-2017			\$ 1,383,961
Payments to State			
State Premium Tax State Internal Administration Expense Audit/Consultant Service Charge	\$	857,778 1,380,948 16,000	
Total			\$ 2,254,726
Payment from Stabilization Reserve for Premiums			\$ 41,392
Excess of Disbursement and Reserves over Premiur	m		\$ 1,085,685
Minnesota Life Expenses Risk Charge Federal Income Tax Charge	\$	1,842,831 80,053 66,345	
Total	\$	1,989,229	
Interest Credited to Plan	-	3,074,914	
Interest Credited to Plan Less Cost			\$ 1,085,685

D. Historical Statistics - Spouse and Dependent Insurance

<u>Year</u>	Employee Contributions		Death Losses	Living <u>Benefits</u>	Conversion Costs	Total Claim Charges	
<u>1001</u>	CONTIDUCTORS		<u> </u>	Denents	00313	Olailli Ollaiges	
2017	\$1,184,896		\$1,030,967	\$0	\$4,800	\$1,035,767	
2016	1,191,484		1,202,132	20,000	4,200	1,226,332	
2015	1,196,318		1,051,479	10,000	4,500	1,065,979	
2014	1,208,721		1,245,796	20,000	2,700	1,268,496	
2013	1,216,332		1,330,896	20,000	2,160	1,353,056	
2012	1,248,127		1,180,227	0	14,400	1,194,627	
2011	1,297,655		1,631,968	0	22,200	1,654,168	
2010	1,329,441		1,448,386	10,000	9,300	1,467,686	
2009	1,341,736		1,539,639	20,000	8,820	1,568,459	
2008	1,337,106		1,617,363	0	9,690	1,627,053	
1983- 2007	30,336,993		26,448,417	135,000	<u>249,375</u>	26,832,792	
Total	\$42,888,809		\$39,727,270	\$235,000	\$332,145	\$40,294,415	
			Overhead Cost				
_	Insurance		State	Federal		State Internal	Audit/
	Company	Risk	Premium	Income		Administration	Consultant
<u>Year</u>	Expense	<u>Charge</u>	<u>Tax</u>	<u>Tax</u>	<u>Total</u>	<u>Expense</u>	<u>Charge</u>
2017	\$62,799	\$2,370	\$23,698	(\$913)	\$87,955	\$79,932	\$0
2016	63,149	2,383	23,830	(1,140)	88,222	91,392	0
2015	63,405	2,393	23,926	(1,408)	88,316	38,028	0
2014	64,062	2,417	24,174	(1,569)	89,084	113,603	0
2013	64,466	2,433	24,327	(1,756)	89,470	0	0
2012	66,151	2,496	24,963	(1,637)	91,973	52,095	0
2011	68,776	2,595	25,953	(1,246)	96,078	69,352	294
2010	70,593	2,659	26,589	(1,138)	98,703	36,037	612
2009	71,246	2,683	26,835	(1,564)	99,200	43,980	0
2008	71,000	2,674	26,742	(2,358)	98,058	24,797	0
1983- 2007	<u>1,177,184</u>	54,950	606,741	81,074	<u>1,919,949</u>	831,732	<u>15,094</u>
Total	\$1,842,831	\$80,053	\$857,778	\$66,345	\$2,847,008	\$1,380,948	\$16,000
						Interest Credits	
	Insurance			-	On		Current
	In Force At		Stabilization		Stabilization		Premium Less
<u>Year</u>	End of Year		Reserve		Reserve		<u>Charges</u>
2017	\$795,935,000		\$1,383,961		\$42,135		\$1,100
2016	803,760,000		1,359,483		49,746		346
2015	807,400,000		1,523,853		55,221		1,827
2014	805,950,000		1,462,810		65,312		185
2013	810,265,000		1,659,775		76,939		1,253
2012	819,980,000		1,807,777		83,235		1,510
2011	852,035,000		1,813,600		107,302		(1,396)
2010	882,590,000		2,229,931		125,084		1,942
2009	897,225,000		2,376,502		144,205		(2,608)
2008	895,485,000		2,604,808		163,295		4,027
1983- 2007	893,160,000		2,850,288		1,901,799		<u>252,455</u>
Total					\$2,814,273		\$260,641

E. Cumulative Financial Experience on Retiree Insurance - 2008 through 2017

Retiree Contributions			\$	50,235,819
Employer Contributions				18,464,604
Total Premium			\$	68,700,423
Reserve Brought Forward on January 1, 2008			\$	208,679,884
Death Claims AD&D Claims Living Benefit Claims Pooled Claims Pool Charge Conversion Charge Catastrophic Loss Credit	\$	117,654,637 2,813,037 275,250 0 107,792 0		
Total Claim Charges			\$	120,850,716
Contingent Liability Reserve on 12-31-2017 Premium Deposit Fund on 12-31-2017	\$	30,918,590 213,312,700		
Total			\$	244,231,290
Payments to State				
State Premium Tax State Internal Administration Expense Actuarial Service Charge Audit/Consultant Service Charge Research Survey Cost Total	\$	2,675,275 606,066 137,370 0	· \$	3,418,711
Withdrawals of Postretirement Life Insurance Values to Pay Health Insurance Premiums	s		\$	24,311
Excess of Disbursement and Reserves Over Premiu Brought Forward on January 1, 2008	ım	and Reserve	\$	91,144,721
Minnesota Life Expenses Reinsurance Expense Risk Charge Catastrophic Loss Federal Income Tax Charge	\$	7,768,573 11,755 154,027 0 172,144		
Total	\$	8,106,499		
Interest Credited to Plan	-	99,251,220		
Interest Credited to Plan Less Cost			\$	91,144,721

F. Historical Statistics - Retiree Insurance - 2008 and Later

	Insurance I	n Force	Pre-Age 65		
	at End o		Retiree	PDF	Total
Voor -		Post-Age 65	Contributions		
<u>Year</u>	Pre-Age 65	FUSI-Age 05	Continuutions	<u>Contributions</u>	<u>Premium</u>
2017 2016	1,145,345,093 1,141,194,000	509,135,750 472,046,250	\$5,701,145 5,718,247	\$1,899,029 1,874,958	\$7,600,174 7,593,205
2015	1.112.234.000	433,244,500	5,509,597	1,818,885	7,328,482
2014	1,090,809,000	401,638,500	5,459,554	1,776,490	7,236,044
2013	1,090,977,000	369,512,250	5,505,225	1,743,698	7,248,923
2012	1,020,957,000	339,426,250	5,400,091	1,814,635	7,214,726
2011	917,858,000	296,558,250	4,655,484	1,895,348	6,550,832
2010	800,016,000	263,634,750	4,332,956	1,928,846	6,261,802
2009	744,181,000	247,986,000	4,061,882	1,906,415	5,968,297
2008	714,345,000	230,296,250	<u>3,891,638</u>	<u>1,806,300</u>	<u>5,697,938</u>
Totals			\$50,235,819	\$18,464,604	\$68,700,423
			<u>Claims</u>		

_		Death L	osses	_			
	Pre-Age 65	Pre-Age 65	Post -Age 65		Pre-Age 65	Post-Age 65	Total
<u>Year</u>	<u>Life</u>	AD&D	<u>Life</u>	<u>Total</u>	Living Benefits	<u>Living Benefits</u>	<u>Claims</u>
2017	\$3,639,854	\$58,362	\$8,993,031	\$12,691,247	\$59,000	\$0	\$12,750,247
2016	5,475,274	196,502	8,954,073	14,625,849	0	14,750	14,640,599
2015	5,446,127	295,595	8,624,236	14,365,958	0	80,750	14,446,708
2014	3,875,731	626,749	7,337,281	11,839,761	0	0	11,839,761
2013	4,196,353	264,010	7,415,466	11,875,829	0	17,250	11,893,079
2012	4,950,514	113,582	6,588,265	11,652,361	0	13,000	11,665,361
2011	5,810,820	513,478	6,141,237	12,465,535	0	12,500	12,478,035
2010	6,091,729	364,772	5,939,071	12,395,572	0	15,250	12,410,822
2009	3,577,600	206,391	5,551,594	9,335,585	0	35,000	9,370,585
2008	<u>4,607,218</u>	<u>173,596</u>	<u>4,439,163</u>	<u>9,219,977</u>	<u>0</u>	<u>27,750</u>	<u>9,247,727</u>
Totals	\$47,671,220	\$2,813,037	\$69,983,417	\$120,467,674	\$59,000	\$216,250	\$120,742,924
	Total	Conversion	Pooled	Pool	Total		
<u>Year</u>	<u>Claims</u>	<u>Charge</u>	<u>Claims</u>	<u>Charge</u>	Claim Charges		
2017	\$12,750,247	\$0	\$0	\$23,422	\$12,773,669		
2016	14,640,599	0	0	21,229	14,661,828		
2015	14,446,708	0	0	16,096	14,462,804		
2014	11,839,761	0	0	13,199	11,852,960		
2013	11,893,079	0	0	7,732	11,900,811		
2012	11,665,361	0	0	8,896	11,674,257		
2011	12,478,035	0	0	6,052	12,484,087		
2010	12,410,822	0	0	3,851	12,414,673		
2009	9,370,585	0	0	3,678	9,374,263		
2008	9,247,727	<u>0</u>	<u>0</u>	3,637	9,251,364		
_000	<u>5,2,. 21</u>				<u>5,25 : ,56 i</u>		
Totals	\$120,742,924	\$0	\$0	\$107,792	\$120,850,716		

F. Historical Statistics - Retiree Insurance - 2008 and Later (cont'd)

			Overhead C	Cost			_		
	Insurance	Deineuranae	Risk	State Premium	Federal		State Internal Administration	Actuarial Service	Interest
.,	Company	Reinsurance			Income				Credits/
<u>Year</u>	<u>Expense</u>	<u>Expense</u>	<u>Charge</u>	<u>Tax</u>	<u>Tax</u>	<u>Total</u>	<u>Expense</u>	<u>Charge</u>	<u>Charges</u>
2017	\$943,351	\$1,354	\$8,248	\$304,493	\$10,699	\$1,268,145	\$56,360	\$21,500	\$13,003
2016	931,180	1,353	13,552	321,065	13,350	1,280,500	115,745	0	4,841
2015	892,989	1,306	10,572	314,850	13,478	1,233,195	54,740	0	8,231
2014	848,726	1,289	6,425	264,516	15,675	1,136,631	142,028	36,000	11,667
2013	828,185	1,244	20,021	267,149	19,318	1,135,917	0	12,000	11,576
2012	785,780	1,189	29,194	256,922	22,779	1,095,864	62,181	22,000	5,425
2011	713,181	1,079	30,153	271,532	19,193	1,035,138	72,728	0	12,776
2010	654,086	1,055	14,297	268,565	19,479	957,482	52,451	18,565	12,474
2009	612,443	968	9,505	205,157	19,697	847,770	49,833	0	11,698
2008	<u>558,652</u>	<u>918</u>	<u>12,060</u>	<u>201,026</u>	<u>18,476</u>	<u>791,132</u>	<u>0</u>	<u>27,305</u>	<u>16,703</u>
Totals	\$7,768,573	\$11,755	\$154,027	\$2,675,275	\$172,144	\$10,781,774	\$606,066	\$137,370	\$108,394

	Reserves							
	Contingent	Premium						
	Liability	Deposit						
<u>Year</u>	Reserve	<u>Fund</u>	<u>Total</u>					
2017	\$30,918,590	\$213,312,700	\$244,231,290					
2016	38,097,058	205,048,477	243,145,535					
2015	45,987,286	197,480,756	243,468,042					
2014	53,223,215	189,909,860	243,133,075					
2013	58,638,249	181,280,272	239,918,521					
2012	63,563,611	172,545,902	236,109,513					
2011	67,625,600	164,069,046	231,694,646					
2010	70,833,865	157,167,232	228,001,097					
2009	73,364,357	150,285,432	223,649,789					
2008	75,189,487	140,921,026	216,110,513					

	Inter	est Credits on Re	serves	
-	Contingent	Premium		Withdrawals to
	Liability	Deposit		Pay Health and
<u>Year</u>	Reserve	<u>Fund</u>	<u>Total</u>	LTC Premiums
2017	\$1,227,058	\$6,365,194	\$7,592,252	\$0
2016	1,597,091	6,550,796	8,147,887	10,368
2015	1,963,438	6,785,555	8,748,993	0
2014	2,281,364	6,863,358	9,144,722	10,260
2013	2,606,565	6,990,672	9,597,237	0
2012	2,921,314	7,127,704	10,049,018	0
2011	3,294,095	7,427,799	10,721,894	0
2010	3,750,711	7,773,175	11,523,886	3,683
2009	4,068,966	7,762,181	11,831,147	0
2008	4,229,674	<u>7,556,115</u>	11,785,789	<u>0</u>
Totals	\$27,940,276	\$71,202,549	\$99,142,825	\$24,311

G. Cumulative Financial Experience on Employee Insurance (Active Employees and Retirees) - 1960 through 2007

Employee Contributions			\$ 247,240,031
Employer Contributions			
Premium Credited to Plan Premium Deposit Fund	\$	34,214,362 35,774,042	69,988,404
Total Premium			\$ 317,228,435
Death Claims AD&D Claims Living Benefit Claims Increase in Disability Claim Reserve Pooled Claims Pool Charge Conversion Charge Catastrophic Loss Credit	\$	273,752,066 16,867,867 3,510,750 17,151,148 0 99,732 338,490 (178,106)	
Total Claim Charges			\$ 311,541,947
Contingent Liability Reserve on 12-31-2007 Premium Deposit Fund on 12-31-2007	\$	75,683,793 140,991,340	
Total			\$ 216,675,133
Payments to State			
State Premium Tax State Internal Administration Expense Actuarial Service Charge Audit/Consultant Service Charge Research Survey Cost Total	\$	6,679,342 3,892,703 38,388 51,735 10,520	\$ 10,672,688
Payment from Contingent Liability Reserve for P	remi	ums	\$ 1,883,923
Withdrawals of Postretirement Life Insurance Va			, ,
to Pay Health Insurance Premiums			\$ 56,310
Excess of Disbursement and Reserves Over Pre	emiur	m	\$ 223,601,566
Minnesota Life Expenses Reinsurance Expense Risk Charge Catastrophic Loss Federal Income Tax Charge	\$	18,448,064 131,816 1,357,265 178,106 952,651	
Total	\$	21,067,902	
Interest Credited to Plan		244,669,468	
Interest Credited to Plan Less Cost			\$ 223,601,566

H. Historical Statistics - Active Employee and Retiree Insurance - through 2007

Total

\$311,281,831

\$338,490

					Premium	-	
	Inquironce In Force	o at End of Voor		Employee	Employer	Employer DDE	Total
<u>Year</u>	Insurance In Force Pre-Retirement	Post-Retirement	<u>Year</u>	<u>Contributions</u>	Employer Contributions	Employer PDF Contributions	Premium
<u>i cai</u>	Fie-Kethement	<u>r ost-ivetirement</u>	<u>i cai</u>	Continuations	Continuations	Continuations	<u>FTemium</u>
2007	\$8,106,420,000	\$209,309,500	2007	\$18,514,622	\$1,104,737	\$1,732,601	\$21,351,960
2006	7,605,139,000	190,202,187	2006	16,955,065	950,272	1,610,684	19,516,021
2005	7,197,947,000	173,746,187	2005	15,776,326	880,599	1,523,359	18,180,284
2004	6,704,793,000	161,093,937	2004	14,659,344	833,183	1,488,778	16,981,305
2003	6,344,520,000	152,082,937	2003	13,898,798	804,687	1,461,837	16,165,322
2002	5,965,707,000	141,320,687	2002	12,512,375	741,180	1,374,756	14,628,311
2001	5,505,865,000	134,879,000	2001	11,320,435	571,653	1,274,766	13,166,854
2000	4,964,213,000	125,537,000	2000	10,116,720	537,353	1,378,975	12,033,048
1999	4,559,369,000	115,355,750	1999	9,455,950	525,820	1,329,891	11,311,661
1998	3,729,857,000	106,349,250	1998	8,935,636	520,786	1,305,749	10,762,171
1996	3,388,947,000	101,841,000	1960 -1997	115,094,760	26,744,092	21,292,646	163,131,498
			Total	\$247,240,031	\$34,214,362	\$35,774,042	\$317,228,435
				<u>Claims</u>			
		Dooth Le					
	Pre-	Death Lo	Post-				
	Retirement	Retirement	Retirement		Living	Disability	Total
<u>Year</u>	<u>Life</u>	AD&D	<u>Life</u>	<u>Total</u>	Benefits	<u>Losses</u>	<u>Claims</u>
<u>1001</u>	<u> </u>	<u>/\bub</u>	<u> </u>	<u>rotar</u>	<u> Derionto</u>	<u> </u>	<u>Oldiiiio</u>
2007	\$13,661,977	\$1,192,492	\$5,305,187	\$20,159,656	\$511,000	\$1,327,477	\$21,998,133
2006	12,342,722	1,580,258	4,521,061	18,444,041	901,000	1,430,034	20,775,075
2005	10,388,980	879,966	4,145,891	15,414,837	124,500	804,850	16,344,187
2004	12,627,796	1,015,277	4,283,601	17,926,674	200,000	(605,989)	17,520,685
2003	12,350,259	1,669,819	3,986,298	18,006,376	487,000	549,221	19,042,597
2002	9,734,737	1,236,492	3,852,234	14,823,463	458,750	1,332,365	16,614,578
2001	9,365,292	628,839	3,562,572	13,556,703	123,000	1,869,808	15,549,511
2000	7,971,710	769,460	3,348,041	12,089,211	23,750	1,086,269	13,199,230
1999	7,612,827	720,856	3,340,578	11,674,261	283,750	332,907	12,290,918
1998	7,828,959	587,626	3,261,026	11,677,611	177,000	901,549	12,756,160
1960- 1997	93,984,509	6,586,782	36,275,809	<u>136,847,100</u>	221,000	8,122,657	145,190,757
Total	\$197,869,768	\$16,867,867	\$75,882,298	\$290,619,933	\$3,510,750	\$17,151,148	\$311,281,831
	Total	Conversion	Pooled	Pool			Total
<u>Year</u>	<u>Claims</u>	<u>Charge</u>	<u>Claims</u>	<u>Charge</u>			Claim Charges
2007	\$21,998,133	\$11,160	\$0	\$23,273			\$22,032,566
2007	20,775,075	57,600	φυ 0	φ23,273 25,208			20,857,883
2005	16,344,187	26,640	0	19,746			16,390,573
2003	17,520,685	26,640	0	17,119			17,564,444
2004	19,042,597	16,860	0	14,386			19,073,843
2003	16,614,578	22,500	0	14,360			16,637,078
2002	15,549,511	16,380	0	0			15,565,891
2000	13,199,230	8,940	0	0			13,208,170
1999	12,290,918	4,740	0	0			12,295,658
1998	12,756,160	1,500	0	0			12,757,660
1960- 1997	145,190,757	1,500 145,530	<u>0</u>	<u>0</u>			145,336,287
.000 1007	1.10,100,101	140,000	<u> </u>	<u> </u>			110,000,207

\$99,732

\$311,720,053

\$0

H. Historical Statistics - Active Employee and Retiree Insurance - through 2007 (cont'd)

			(Overhead Cost							
	Insurance			State	Federal		State Internal	Actuarial	Audit/	Research	Interest
	Company	Reinsurance	Risk	Premium	Income		Administration	Service	Consultant	Survey	Credits/
<u>Year</u>	<u>Expense</u>	<u>Expense</u>	Charge*	<u>Tax</u>	<u>Tax</u>	<u>Total</u>	<u>Expense</u>	<u>Charge</u>	<u>Charge</u>	<u>Cost</u>	<u>Charges</u>
2007	\$1,642,242	\$3,416	\$65,405	\$468,673	\$72,165	\$2,251,901	\$249,586	\$23,936	\$0	\$0	\$191,898
2006	1,494,687	3,123	47,586	444,260	64,454	2,054,110	223,343	0	8,699	0	110,645
2005	1,389,672	2,909	42,714	349,646	61,415	1,846,356	208,373	0	0	0	143,998
2004	1,285,912	2,675	29,069	371,621	59,267	1,748,544	181,758	905	0	0	89,217
2003	1,221,501	2,639	54,756	401,966	60,462	1,741,324	253,424	1,700	18,633	0	121,600
2002	1,117,501	4,175	46,950	348,868	52,727	1,570,221	150,150	1,745	0	0	87,189
2001	1,003,151	4,517	47,021	325,213	44,602	1,424,504	107,850	1,650	0	0	92,006
2000	919,839	11,163	46,654	276,155	41,480	1,295,291	38,007	1,402	8,727	0	74,225
1999	842,497	11,704	39,389	256,390	45,544	1,195,524	0	1,391	0	0	61,178
1998	781,429	10,963	67,869	269,165	51,662	1,181,088	137,490	1,153	0	0	66,448
1960- 1997	6,749,633	74,532	869,852	<u>3,167,385</u>	398,873	11,260,275	2,342,722	4,506	<u>15,676</u>	10,520	<u>1,711,724</u>
Total	\$18,448,064	\$131,816	\$1,357,265	\$6,679,342	\$952,651	\$27,569,138	\$3,892,703	\$38,388	\$51,735	\$10,520	\$2,750,128

^{*}Risk charge reflects reduction for 1987 catastrophic loss credit of \$178,106.

		Contingent	Premium		_
	Disability	Liability	Deposit		
<u>Year</u>	Reserve	Reserve	<u>Fund</u>	<u>Total</u>	
2007	\$17,151,148	\$75,683,793	\$140,991,340	\$233,826,281	
2006	15,823,671	75,175,650	131,607,871	222,607,192	
2005	14,393,637	75,305,226	123,117,809	212,816,672	
2004	13,588,787	72,017,608	114,855,712	200,462,107	
2003	14,194,776	70,683,368	107,040,743	191,918,887	
2002	13,645,555	70,171,487	100,249,667	184,066,709	
2001	12,313,190	69,463,315	92,628,705	174,405,210	
2000	10,443,382	68,348,884	85,827,691	164,619,957	
1999	9,357,113	66,759,288	78,788,609	154,905,010	
1998	9,024,206	65,206,883	72,488,388	146,719,477	
1997	8,122,657	64,306,104	67,178,644	139,607,405	
			Interest Credits on Reserves		
		Contingent	Premium		Withdrawals
	Disability	Liability	Deposit		to Pay Health
<u>Year</u>	Reserve	<u>Reserve</u>	<u>Fund</u>	<u>Total</u>	<u>Premiums</u>
2007	\$929,813	\$4,325,062	\$7,670,212	\$12,925,087	\$19,344
2006	818,117	4,180,360	6,879,378	11,877,855	0
2005	816,982	4,115,015	6,738,738	11,670,735	0
2004	823,287	4,424,860	6,337,309	11,585,456	11,118
2003	867,360	4,707,408	6,542,089	12,116,857	11,898
2002	827,016	4,782,466	6,363,346	11,972,828	0
2001	745,750	4,865,755	6,146,276	11,757,781	1,301
2000	667,981	4,744,914	5,660,107	11,073,002	0
1999	610,273	4,391,757	4,970,330	9,972,360	0
1998	551,337	4,327,436	4,580,522	9,459,295	12,649
1997	7,916,027	72,558,458	47,033,599	127,508,084	<u>0</u>
Total	\$15,573,943	\$117,423,491	\$108,921,906	\$241,919,340	\$56,310

STATE OF WISCONSIN AND LOCAL GOVERNMENTS

VIII. Funding Assumptions

A. Salaries increase annually in accordance with the following schedule:

	Percer	ntage Increase
<u>Age</u>	State	<u>Local</u>
20	6.5	7.3
25	6.5	7.3
30	6.5	7.3
35	5.3	5.6
40	5.3	4.7
45	4.4	4.2
50	4.0	3.6
55	3.8	3.6
60	3.6	3.5
65	3.6	3.5

B. Annual employee withdrawal rates are as follows:

	Withdra	vals Per 1,000				
<u>Age</u>	<u>State</u>	<u>Local</u>				
20	174	180				
25	174	180				
30	88	74				
35	57	45				
40	27	21				
45	22	18				
50	18	15				
55	17	15				
60	17	15				

- C. Annual interest rates are projected portfolio rates, assuming new money rates grade to 5.00% over 10 years beginning with the 2017 new money rate of 2.68%.
- D. Expected mortality and morbidity are based on studies of the actual experience of the plan during the years 2012 through 2016. Mortality and morbidity rates are expected to improve 2% per year in the future. The Local plan valuation assumes mortality improvement beyond 2032 will be reflected in reduced premium rates. The State plan valuation assumes premium contribution rates remain at their current levels in the future.
- E. Annual accidental death rates of .12 deaths per thousand for State employees and .14 deaths per thousand for employees of participating public employers are assumed at all ages under 65. These rates are based on plan experience during 2012 through 2016.
- F. No explicit allowance is made for insurance company expenses or State premium taxes.

STATE OF WISCONSIN AND WISCONSIN LOCAL GOVERNMENTS

IX. Conversion of Postretirement Life Insurance Values to Pay Health or Long-Term Care Insurance Premiums

Report on operations for 2017, the twenty-third year of the benefit

		State Retirees	Local Retirees
A. Number of Retirees Utilizing Benefit			
1. Utilization on December 31, 2016		184	2
2. Conversions Effective in 2017		80	0
 3. Terminations During 2017 a. Exhaustion of Conversion Account Balance b. Death c. Revocation of Conversion d. Reversion to Life Insurance Plan Reserve e. Total Terminations (a+b+c+d) 		47 3 0 <u>1</u> 51	1 0 0 0 0
4. Adjustments		0	0
5. Utilization on December 31, 2017 (1+2-3e+4)		213	1
B. Conversion Account Activity			
1. Conversion Account Balances on December 31, 2016	\$	1,103,759.12	\$ 3,776.70
2. Conversion Account Balances Established in 2017	\$	1,211,428.00	\$ 0.00
3. Payments From Conversion Accounts During 2017			
 a. Health Insurance Premiums b. Long-term Care Insurance Premiums c. Death Benefits d. Revocation of Conversion e. Reversion to Life Insurance Plan Reserve f. Adjustments g. Total Payments (a+b+c+d+e+f) 	\$ -	786,624.67 97,907.23 10,875.34 0.00 3.32 0.00 895,410.56	3,742.50 0.00 0.00 0.00 0.00 0.00 3,742.50
4. Conversion Account Balances on December 31, 2017 (1+2-3g)	\$	1,419,776.56	\$ 34.20

STATE OF WISCONSIN AND WISCONSIN LOCAL GOVERNMENTS

		State Retirees	<u>L</u>	ocal Retirees
C. Cumulative Number of Retirees Utilizing Benefit - 1995 through 2017				
1. Conversions		964		11
2. Terminations				
 a. Exhaustion of Conversion Account Balance 		701		11
b. Death		43		0
c. Revocation of Conversion		3		1
d. Reversion to Life Insurance Plan Reserve		<u>12</u>		<u>0</u>
e. Total Terminations (a+b+c+d)		759		12
3. Adjustments		8		2
4. Utilization on December 31, 2017 (1-2e+3)		213		1
D. Cumulative Conversion Account Activity - 1995 through 2017				
Conversion Account Balances Established	\$	11,622,468.50	\$	80,620.50
2. Payments From Conversion Accounts				
a. Health Insurance Premiums	\$	8,736,991.74	\$	80,579.80
b. Long-term Care Insurance Premiums	*	1,201,126.52	Ψ	0.00
c. Death Benefits		183,032.91		0.00
d. Revocation of Conversion		26,678.90		0.00
e. Reversion to Life Insurance Plan Reserve		55,231.53		0.00
f. Adjustments		(369.66)		6.50
g. Total Payments (a+b+c+d+e+f)	\$	10,202,691.94	\$	80,586.30
3. Conversion Account Balances on December 31, 2017 (1-2g)	\$	1,419,776.56	\$	34.20

GROUP LIFE INSURANCE PLAN COVERAGES FOR STATE EMPLOYEES AND THEIR SPOUSES AND DEPENDENTS

OF THE STATE OF WISCONSIN

Submitted by

Securian Financial

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PREMIUM RATES FOR THE STATE EMPLOYEE GROUP LIFE INSURANCE PLAN

Review of Recent Plan Experience

Premiums

The premium rate structure for the plan is described in the Appendix at the end of this report. The fundamental principles of this structure were adopted by the Board on August 30, 1994.

The most recent change in premium rates occurred on May 1, 2012, when employee premium rates were decreased for basic, supplemental, and additional insurance. Because employer contributions are based on a percentage of employee premium rates, employer premium contributions were also reduced at that time.

Claims

Historically, claim rates have shown a steady pattern of improvements over many years. These improvements have allowed the Board to reduce premium rates frequently.

Claims during 2017 and the most recent three-year period were better than the targeted level. Securian and ETF have implemented a strategy that enables the premiums to cover anticipated claims and will allow for strengthening the reserves used to fund post-retirement life insurance benefits. The continued low interest rate environment continues to place pressure on funding of post-retirement life insurance benefits. Securian and ETF will determine a plan to further increase the post-retirement funding of the plan.

Recommendation

Securian and ETF will determine a plan to increase the post-retirement funding of the plan. Specific recommendations will be presented in November.

STOP-LOSS LIMITS FOR THE STATE EMPLOYEE GROUP LIFE INSURANCE PLAN

Summary of Stop-Loss Provision

- Limits the liability of plan reserves for high claims in a policy year. Excess claims and expenses above the stop-loss limit are covered by risk reserves of Securian and the reinsurer.
- State and local government plans are separate for purposes of the stop-loss provision.
- The annual stop-loss limit for each plan is calculated by applying a table of stop-loss rates to the amounts of insurance in force.
- Stop-loss rates are determined based on recent claims experience and are set so
 that claims and expenses are expected to exceed the stop-loss limit in three years
 out of every one hundred years.

Recent Experience

The current stop-loss rates were implemented on January 1, 2012. As discussed in the first section of this report, overall claims in recent years were lower than the experience on which the current rates are based.

Recommendation

Stop loss rates are a function of the plan premium rates. Specific recommendations will be presented in November.

BENEFITS AND PREMIUMS FOR INSURED SPOUSES AND DEPENDENTS OF STATE EMPLOYEES

Recent Claims Experience

Based on the decreasing size of the stabilization reserve balance, premium rates were increased to \$2.50 from \$2.00 effective March 1, 2010, with the goals of covering anticipated claim costs and strengthening the stabilization reserve.

Since that time, the reserve has grown to the target level and has remained near the target for several years.

2016 claim results were better than the targeted level. Overall, the most recent three-year result was better than target.

Recommendation

Based on our analysis of recent experience, we recommend that spouse and dependent insurance benefits and premiums be continued at their current levels in 2019.

Submitted for Securian Financial by:

Paul E. Rudeen, FSA

Vice President and Actuary Group Insurance Division

APPENDIX

SUMMARY OF BENEFIT AND PREMIUM STRUCTURE

Employee Insurance

Basic Coverage:

- Controlled by ss. 40.05 (6) (a) and 40.72 (1), Stats.
- Coverage can be continued, and the employee is liable for premium, up to age 70 (age 65 if retired). Thereafter, eligible employees receive premium-free postretirement coverage at 50% of the active coverage amount.
- Maximum employee premium, by statute, is \$0.60 per \$1,000 in coverage.
- The State pays the difference between employee premium and total premium. State
 premiums, which are expressed as a percentage of employee premiums, are
 intended to pay a portion of the cost of current coverage and to also cover the cost of
 future postretirement coverage. The State pays an amount equal to 63% of the
 employee premium.
- Premiums are established annually by the Group Insurance Board. Securian makes recommendations based on experience in the three most recent plan years.

Supplemental Coverage:

- Controlled by ss. 40.05 (6) (a) and 40.72 (10), Stats.
- Coverage can continue, and employee is liable for premium, up to age 70 (age 65 if retired). There is no postretirement benefit.
- Maximum employee premium, by statute, is \$0.60 per \$1,000 in coverage.
- The State pays the difference between employee premium and total premium. The State pays an amount equal to 35% of the employee premium.
- Premiums are established annually by the Group Insurance Board. Employee premium rates are equal to those for the basic plan.

Additional Coverage:

• Controlled by s. 40.03 (6) (b), Stats. and the life insurance contract.

- An employee may purchase one, two or three units of coverage.
- The employee pays the entire premium. There is no maximum premium. Coverage
 can be continued for as long as the employee remains employed (or until age 65 if
 retired). There is no postretirement benefit.
- Premium rates are set by the Group Insurance Board. Securian's recommendation is based on experience in the three most recent plan years.

Spouse and Dependent Insurance

- An insured employee's legal spouse and unmarried children, including stepchildren, adopted children, children in adoptive placement and legal wards, are eligible for coverage.
- A dependent child is eligible until age 19 or until age 25 if a full-time student. A
 physically or mentally disabled dependent may qualify beyond age 25.
- An employee may purchase either one or two units of coverage.
- Amounts of insurance per unit of coverage:

Spouse \$10,000 Dependent Child 5,000

- Monthly premium is \$2.50 per unit of coverage. By statute, the State is not required to contribute toward premiums.
- Benefits and premiums are established by the Group Insurance Board. Securian makes recommendations based on experience in the three most recent plan years.

Employer Aviation AD&D Insurance

- A loss under the standard definition of accidental death or dismemberment (AD&D) suffered by a State employee who is a pilot, crew member or passenger on an aircraft owned, operated or leased by a State employer and being used for business of the State employer is exempt from the non-commercial aviation limit to AD&D claims.
- Premium for this benefit is paid by the State in an amount equal to 2.25% of the active employee paid premium for Basic and Supplemental coverages.
- A financial experience calculation for this benefit is performed separately from the active employee life insurance benefit.

GROUP LIFE INSURANCE PLAN COVERAGES FOR LOCAL GOVERNMENT EMPLOYEES AND THEIR SPOUSES AND DEPENDENTS

OF THE STATE OF WISCONSIN

Submitted by

Securian Financial

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PREMIUM RATES FOR THE LOCAL GOVERNMENT EMPLOYEE GROUP LIFE INSURANCE PLAN

Review of Recent Plan Experience

Premiums

The premium rate structure for the plan is described in the Appendix at the end of this report. The fundamental principles of this structure were adopted by the Board on November 29, 1994.

The most recent change in premium rates occurred on July 1, 2013, when employee premium rates were reduced for basic, supplemental and additional insurance. Because employer contributions are based on a percentage of employee premium rates, employer premium contributions were also reduced at that time.

Claims

Historically, claim rates have shown a steady pattern of improvements over many years. These improvements have allowed the Board to reduce premium rates frequently.

Claims during 2016 and the most recent three-year period were better than the targeted level. However, due to the continued low interest rate environment, and the pressure that places on funding of post-retirement life insurance benefits, we believe it is prudent to hold premium rates at their current levels for a period of time. This strategy will enable the premiums to cover anticipated claims and will allow for strengthening the reserves used to fund post-retirement life insurance benefits.

Recommendation

Based on our analysis of recent experience, Securian recommends that employee and employer premium contribution rates be continued at their current levels in 2019.

STOP-LOSS LIMITS FOR THE LOCAL GOVERNMENT EMPLOYEE GROUP LIFE INSURANCE PLAN

Summary of Stop-Loss Provision

- Limits the liability of plan reserves for high claims in a policy year. Excess claims and expenses above the stop-loss limit are covered by risk reserves of Securian and the reinsurers.
- State and local government plans are separate for purposes of the stop-loss provision.
- The annual stop-loss limit for each plan is calculated by applying a table of stop-loss rates to the amounts of insurance in force.
- Stop-loss rates are determined based on recent claims experience and are set so
 that claims and expenses are expected to exceed the stop-loss limit in three years
 out of every one hundred years.

Recent Experience

The current stop-loss rates were implemented on January 1, 2013. As discussed in the first section of this report, overall claims in recent years were lower than the experience on which the current rates are based.

Recommendation

Consistent with the recommended employee premium contribution rates for 2018, Securian recommends that stop-loss rates be maintained at their current level for 2019.

BENEFITS AND PREMIUMS FOR INSURED SPOUSES AND DEPENDENTS OF LOCAL GOVERNMENT EMPLOYEES

Recent Claims Experience

This plan maintains a stabilization reserve to provide financial stability as claims fluctuate from year to year. Because of good experience and interest earnings, the plan's stabilization reserve had grown to be in excess of the targeted reserve level. Based on the recent experience and the size of the stabilization reserve balance, premiums were reduced from \$2.00 to \$1.75 monthly for each unit of insurance effective July 1, 2007. It was anticipated that claims and expenses would exceed premiums at the reduced rate and the excess would be drawn from the stabilization reserve, the balance of which was large enough to provide this support for at least several years.

While 2017 claims results were at target, resulting in a slight increase to the stabilization reserve, recent years' experience is consistent with the pricing strategy of drawing down the stabilization reserve.

Recommendation

Based on our analysis of recent experience and because of the large stabilization reserve balance, we recommend that spouse and dependent insurance benefits and premiums be continued at their current levels in 2019.

Submitted for Securian Financial by:

Paul E. Rudeen, FSA

Vice President and Actuary Group Insurance Division

August 22, 2018

APPENDIX

SUMMARY OF BENEFIT AND PREMIUM STRUCTURE

Employee Insurance

Basic Coverage:

- Controlled by ss. 40.05 (6) (a) and 40.72 (1), Stats.
- Coverage can be continued, and the employee is liable for premium, up to age 70 (age 65 if retired). Thereafter, eligible employees receive premium-free postretirement coverage at 25% or 50% of the active coverage amount.
- Maximum employee premium, by statute, is \$0.60 per \$1,000 in coverage.
- Employer pays the difference between employee premium and total premium.
 Employer premiums, which are expressed as a percentage of employee premiums, are intended to cover the cost of postretirement coverage. Employers that elect the 50% postretirement benefit pay an amount equal to 40% of the employee premium. Most local employers pay an amount equal to 20% of the employee premium to provide a 25% postretirement benefit.
- Premiums are established annually by the Group Insurance Board. Securian makes recommendations based on the combined experience of the basic, supplemental and additional plans in the three most recent plan years.

Supplemental Coverage:

- Controlled by ss. 40.05 (6) (a) and 40.72 (10), Stats.
- Coverage can continue, and employee is liable for premium, up to age 70 (age 65 if retired). There is no postretirement benefit.
- Maximum employee premium, by statute, is \$0.60 per \$1,000 in coverage.
- Employer pays the difference, if any, between employee premium and total premium.
 Prior to July 1, 1995, local employers were required to pay an amount equal to at least 20% of the total premium. Based on Board action in November 1994, effective July 1, 1995, employers are not required to contribute toward the premiums for supplemental insurance; employees pay the total premium.
- Premiums are established annually by the Group Insurance Board. The total supplemental premium is set equal to the employee premium for the basic plan.

Additional Coverage:

• Controlled by s. 40.03 (6) (b), Stats. and the life insurance contract.

- An employee may purchase one, two or three units of coverage.
- The employee pays the entire premium. There is no maximum premium. Coverage can be continued for as long as the employee remains employed (or until age 65 if retired). There is no postretirement benefit.
- Premium rates are set by the Group Insurance Board. The premium rates for additional insurance are set equal to the employee premium rates for the basic plan.

Spouse and Dependent Insurance

- An insured employee's legal spouse and unmarried children, including stepchildren, adopted children, children in adoptive placement and legal wards, are eligible for coverage.
- A dependent child is eligible until age 19 or until age 25 if a full-time student. A
 physically or mentally disabled dependent may qualify beyond age 25.
- An employee may purchase either one or two units of coverage.
- Amounts of insurance per unit of coverage:

Spouse \$10,000 Dependent 5,000

- Monthly premium is \$1.75 per unit of coverage. By statute, local government employers are not required to contribute toward premiums.
- Benefits and premiums are established by the Group Insurance Board. Securian makes recommendations based on experience in the three most recent plan years.