

---

---

The Report of the  
June 30, 2000 Actuarial Valuation  
of the  
State Universities Retirement  
System of Illinois



Gabriel, Roeder, Smith & Company



Actuaries & Consultants

---

---



October 17, 2000

Board of Trustees  
State Universities Retirement System of Illinois  
1901 Fox Drive  
Champaign, Illinois 61820

Dear Members of the Board:

We are pleased to present the report of the actuarial valuation of the State Universities Retirement System of Illinois ("SURS") as of June 30, 2000.

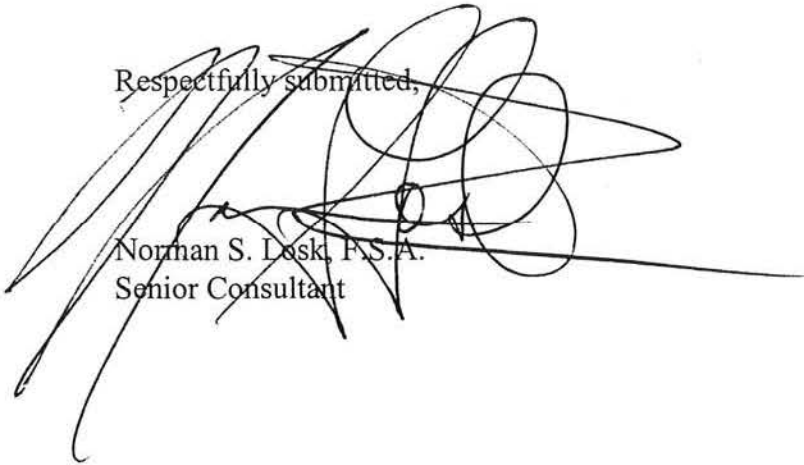
This valuation provides information on the funding status of SURS. In addition, it includes a determination of State contribution level for the fiscal year ending June 30, 2002, under Section 15-155 of the SURS statute and estimates of contribution for subsequent years.

This valuation is based on the provisions of SURS in effect as of June 30, 2000, data on the SURS membership and information on the asset value of the trust fund. All member data and asset information were provided by SURS staff. While certain checks for reasonableness were performed, the data was used unaudited.

The actuarial cost method and the set of actuarial assumptions used in this valuation are those used in the prior actuarial valuation of SURS.

To the best of our knowledge, this actuarial statement is complete and accurate, and has been prepared in accordance with generally accepted actuarial principles and practice.

Respectfully submitted,



Norman S. Losk, F.S.A.  
Senior Consultant

NSL:cml

---

## TABLE OF CONTENTS

---

<b>Page</b>	
	<b><i>Summary of the Valuation</i></b>
1	Purposes of the Actuarial Valuation
1	Report Highlights
1	Actuarial Assumptions
2	SURS Benefits
2	Experience During 2000
3	Statutory Appropriations for the 2001 Fiscal Year and Beyond
4	Asset Information
5	Funding Status
5	GASB Disclosure
	<b><i>Appendix A Asset Information</i></b>
6	Table 1 – Net Assets Available for Benefits
7	Table 2 - Change in Assets Available for Benefits
	<b><i>Appendix B Membership Data</i></b>
8	Table 3 - Summary of Data Characteristics
9	Table 4 - Distribution of Active Members by Age and Years of Service
10	Table 5 - Distribution of Benefit Recipients by Age
	<b><i>Appendix C Actuarial Determinations</i></b>
11	Table 6 - Summary of Actuarial Values
12	Table 7 - Analysis of Change in Unfunded Actuarial Accrued Liability
13	Table 8 - Analysis of Actuarial Gains and Losses in FY 2000
14	Table 9 - Schedule of Funding Status
15	Table 10 - Schedule of Employer Contributions
16	Table 11 – General Information GASB #25
17	Table 12 - Projected State Contribution Levels 2000 - 2045
	<b><i>Appendix D Actuarial Method and Assumptions</i></b>
19	Projected Unit Credit Method
20	Actuarial Assumptions
24	<b><i>Appendix E Summary of Benefit Provisions of Traditional SURS</i></b>

## Summary of the Valuation



## PURPOSES OF THE ACTUARIAL VALUATION

---

At your request we have performed the actuarial valuation of the State Universities Retirement System of Illinois ("SURS") as of June 30, 2000.

The purposes of an actuarial valuation are as follows:

- To determine the funding status of SURS as of the valuation date, and
- To develop the levels of contributions required under Section 15-155 for the fiscal year ending June 30, 2002 and to estimate contributions required under that Section for the subsequent years of the funding period ending in the year 2045.

## REPORT HIGHLIGHTS

---

The Self-Managed Plan ("SMP") and the new Portable defined benefit option were in operation throughout the Fiscal Year. Their impacts on the results of this valuation were minor, but meaningful.

FY 2000 was the sixth successive year of double-digit investment performance. The returns for the year ending June 30, 2000 amounted to about 14.0%, significantly in excess of the assumed rate.

This valuation, with assets based on market value, has developed a funding ratio of 88.2%, an increase of nearly three percentage points from the prior year. This increase is primarily the result of actuarial gains from the investment process.

The contribution levels set out in this report are slightly higher than those projected last year. This is primarily the result of slightly higher projected pay levels and the projected effect of the SMP.

## ACTUARIAL ASSUMPTIONS

---

The actuarial assumptions and methods used in this valuation are identical to those used in the prior valuation.

## SURS BENEFITS

---

There were no changes in the SURS benefit package reflected in this valuation.

It should be noted that the actuarial valuation reflects only the defined benefit portions of SURS. The SMP, being defined contribution in nature, is not reasonably the subject of an actuarial valuation. Thus, the 5,405 active members (including 506 part-time employees) who had chosen SMP by the valuation date were ignored in determining the actuarial values in this valuation.

The Portable Option was designed to be cost-neutral in relation to the traditional SURS benefit package. For that reason, the Portable benefit package had very little impact on the results of the valuation. In this valuation, 14,576 active members (including 646 part-time employees) had chosen the Portable Option of a total of 72,365 members continuing under Defined Benefit provisions of SURS.

## EXPERIENCE DURING 2000

---

Overall the system experienced an actuarial gain of \$402.3 million in the 2000 Fiscal Year.

Based on market value, the gain from investment return was about \$587.5 million. There was a loss of \$185.2 million from actuarial liabilities, including \$171.5 from pay increases and about \$13.7 million from demographic experience.

The total gain or loss from liabilities for the system is calculated as follows:

1. AAL - Prior Year	\$12,617.5
2. Normal Cost - Prior Year	448.8
3. Benefits Paid in FY 2000	(637.0)
4. Interest on the above items	<u>1,064.5</u>
5. Expected AAL 6/30/00 (1+2-3+4)	13,493.8
6. Actual AAL 6/30/00	<u>13,679.0</u>
7. Actuarial (Gain) or Loss on Liabilities (6-5)	\$ 185.2



The total net actuarial loss was determined as the total of the gain from assets and the gain from liabilities. The total gain is determined as follows:

1. Actuarial Gain on Assets	\$(587.5)
2. Actuarial Loss on Liabilities	<u>185.2</u>
3. Total Actuarial (Gain) or Loss (1+2)	\$(402.3)

See Table 8, Appendix C, for detail of the gains and losses by source.

---

## STATUTORY APPROPRIATIONS FOR THE 2001 FISCAL YEAR AND BEYOND

---

Section 15-155 of the SURS Statute, which governs the development of Employer/State contributions to SURS, provides that:

1. Employer/State contributions are determined under the following process:
  - a) The overall objective is to achieve a funding ratio of 90% by the end of fiscal year ("FY") 2045.
  - b) The Employer/State contribution for FY 2010 and each year thereafter to and including FY 2045 are to be based on a (theoretically) constant percentage of the payroll of active members of SURS.
  - c) The Employer/State contribution rate (expressed as a percentage of active member payroll) is to grade from the current level to the ultimate level in equal steps from the current valuation to that for the 2010 contribution.
  - d) After FY 2045, the Employer/State contribution rate is to be sufficient to maintain the funding level at 90%.
2. The dollar amount of Employer/State contribution required for a fiscal year shall be certified to the Bureau of the Budget no later than November 15 for the fiscal year commencing on the following June 30. The required amounts are budgeted pursuant to the continuing appropriations process.

Based on market value of assets, Employer/State contributions for FY 2002 and estimates of the required contributions for the subsequent five fiscal years are set out below.

Fiscal Year	Required State Contribution (in Millions)		
	33% of New Members to SMP		
	SURS	SMP	Total
2002	\$250.2	\$21.2	\$271.4
2003	260.1	27.1	287.2
2004	270.1	31.3	301.4
2005	280.2	35.7	315.9
2006	290.6	40.3	330.9
2007	301.5	45.1	346.6

We recommend that the Employer/State contribution for FY 2002 be set at \$271,424,000. This is determined as a gross contribution of \$272,923,000 less \$1,499,000 in SMP forfeitures.

Estimates of Employer/State contributions through 2045, assuming that 33% of future new members elect SMP, are set out in Table 12. It should be noted that through June 30, 2000, only about 20% of new entrants (representing over 30% of new entrant salary) have opted for SMP. If this pace continues, we will need to consider changing this assumption.

The State contributions set out in this report represent total required contributions. The net State General Fund appropriation is the total shown in this report, adjusted by contributions from such sources as State Pension Fund appropriations and contributions from federal and trust funds.

## ASSET INFORMATION

---

The Governmental Accounting Standards Board ("GASB") has promulgated Statements Number 25 and 27 that mandate, among other things, the use of market or market related asset value. It has been agreed that market value, without adjustment, will be used for all actuarial purposes. In this valuation, funding status determinations and contribution projections will be set out based on the market value of assets. The assets of the fund that are available for benefits are the total assets of the system reduced by current fund liabilities.

The market value of the assets of the fund, which are available for benefits, has grown from \$10,761.7 million as of June 30, 1999 to \$12,063.9 million as of June 30, 2000.



The detailed determinations of asset values utilized in this valuation and asset growth in the last year are set out in Appendix A.

## FUNDING STATUS

---

The funding status of SURS is measured by the Funding Ratio. The Funding Ratio is the ratio of the assets available for benefits to the actuarial accrued liability of the System. Thus, it reflects the portion of benefits earned by SURS members, which are covered by System assets.

A funding ratio of 100% means that all of the benefits earned to date by SURS members are covered by assets. By monitoring changes in the funding ratio each year we can determine whether or not funding progress is being made.

Based on assets at market value, the SURS funding ratio increased from 85.3% at June 30, 1999 to 88.2% at June 30, 2000.

## GASB DISCLOSURE

---

The state is now operating under the terms of GASB Statement Number 25. Tables 9 and 10 are Required Supplemental Information tables mandated by that statement. Table 11 provides additional supporting information.

# Appendices



**Appendix A**  
**Asset Information**

---

---

TABLE I – NET ASSETS AVAILABLE FOR BENEFITS

(\$ IN MILLIONS)

	Actuarial Valuation as of June 30,	
	1999	2000
ASSETS		
Accrued Investment Income	\$ 21.0	\$ 31.0
Contributions Receivable	9.6	6.3
Other Receivables	123.0	621.2
Investments	11,024.7	12,625.9
Prepaid Expense	.1	.1
Securities Lending Collateral	651.7	706.0
Fixed Assets	15.9	15.5
Total Assets	\$11,846.0	\$14,006.0
ACCOUNTS PAYABLE	1,084.3	1,942.1
NET ASSETS AVAILABLE FOR BENEFITS	<u>\$10,761.7</u>	<u>\$12,063.9</u>

TABLE 2 - CHANGE IN ASSETS AVAILABLE FOR BENEFITS

(\$ IN MILLIONS)

	Actuarial Valuation June 30,	
	1999	2000
1. Assets Available at Beginning of Year	\$ 9,793.8	\$ 10,762.1
Adjustment	<u>(1.8)</u>	<u>(.4)</u>
Adjusted Beginning Value	9,792.0	10,761.7
2. Revenues		
a. Member Contributions	\$ 212.9	\$ 222.5
b. Employer Contributions (includes State)	238.3	241.1
c. Investment Income	194.5	226.4
d. Investment Expense	(14.2)	(18.3)
e. Capital Gains (Losses)	<u>921.8</u>	<u>1,286.2</u>
Total Revenues	\$ 1,553.3	\$ 1,957.9
3. Expenses		
a. Benefits	\$ 526.0	\$ 590.2
b. Refunds	31.3	46.8
c. Administration Expense	10.0	10.9
d. SMP Transfers	14.6	6.4
e. Other	<u>1.3</u>	<u>1.4</u>
Total Expense	\$ 583.2	\$ 655.7
4. Assets Available at End of Year	\$10,762.1	\$12,063.9

**Appendix B**  
**Membership Data**

---

---



TABLE 3 - SUMMARY OF DATA CHARACTERISTICS

(\$ IN MILLIONS)

	June 30, 1999		June 30, 2000	
	Number	Earnings	Number	Earnings
<b>Active Members</b>				
Full time				
Traditional SURS	55,707	\$1,973.9	51,428	\$1,871.7
Portable SURS	11,135	409.1	13,930	527.2
SMP	<u>3,740</u>	<u>119.1</u>	<u>4,899</u>	<u>174.7</u>
Total Full Time	70,582	\$2,502.1	70,257	\$2,573.6
Part time				
Traditional SURS			6,361	19.5
Portable SURS			646	2.9
SMP			<u>506</u>	<u>2.8</u>
Total Part Time	7,824	\$28.1	7,513	\$25.2
Total	78,406	\$2,530.2	77,770	\$2,598.8
<b>Inactive Members</b>				
Traditional/Portable			45,382	
SMP			<u>1,447</u>	
Total	41,814		46,829	
	Number	Annual Benefits	Number	Annual Benefits
<b>Benefit Recipients</b>				
Retirement	22,652	\$477.6	24,087	\$546.7
Survivor	5,436	41.0	5,500	44.1
Disability	<u>1,254</u>	<u>16.5</u>	<u>1,203</u>	<u>16.3</u>
Total	29,342	\$535.1	30,790	\$607.1

**TABLE 4**  
**DISTRIBUTION OF FULL-TIME\* ACTIVE MEMBERS BY AGE AND YEARS OF SERVICE**  
**AS OF JUNE 30, 2000**

Age	Years of Service								Totals
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 & Over	
Under 20	22	15	0	0	0	0	0	0	37
	71,754	121,260	0	0	0	0	0	0	193,014
20-24	434	822	15	0	0	0	0	0	1,271
	2,426,841	14,065,689	314,594	0	0	0	0	0	16,807,124
25-29	638	2,997	504	17	0	0	0	0	4,156
	4,710,984	75,436,765	13,495,094	529,838	0	0	0	0	94,172,681
30-34	655	3,643	1,654	441	18	0	0	0	6,411
	6,310,337	107,590,427	53,882,029	14,642,568	564,854	0	0	0	182,990,215
35-39	613	3,408	2,460	1,363	433	25	0	0	8,302
	5,549,040	103,977,496	87,630,966	52,517,302	16,157,617	803,388	0	0	266,635,809
40-44	491	3,111	2,889	1,953	1,258	410	26	0	10,138
	4,844,975	92,929,232	103,683,676	91,246,264	54,395,236	16,002,661	969,406	0	364,071,450
45-49	406	2,917	3,384	2,295	1,792	1,042	300	26	12,162
	3,939,963	85,058,360	111,527,953	106,659,117	94,377,623	51,361,097	13,628,269	1,075,243	467,627,625
50-54	321	2,233	3,371	2,171	1,984	1,411	742	284	12,517
	3,309,204	64,423,047	96,777,974	99,557,200	106,350,465	81,614,464	46,925,668	15,831,911	514,789,933
55-59	170	1,286	2,054	1,258	1,146	975	775	783	8,447
	1,757,780	34,158,931	54,100,366	56,004,433	59,518,418	58,516,363	57,512,304	58,931,010	380,499,605
60-64	67	594	1,082	565	503	483	393	580	4,267
	688,822	13,215,694	26,839,954	23,337,598	24,759,679	28,992,183	28,780,909	46,913,774	193,528,613
65&Over	53	349	877	275	221	227	153	381	2,536
	399,497	4,865,049	13,049,357	11,297,739	10,588,378	12,680,415	10,240,935	29,253,120	92,374,490
Totals	3,870	21,375	18,290	10,338	7,355	4,573	2,389	2,054	70,244
	34,009,197	595,841,950	561,301,963	455,792,059	366,712,270	249,970,571	158,057,491	152,005,058	2,573,690,559

\*Includes part-time members with at least three years of service.

TABLE 5 - DISTRIBUTION OF BENEFIT RECIPIENTS BY AGE  
NUMBER OF BENEFIT RECIPIENTS AND THEIR ANNUAL BENEFITS  
AS OF JUNE 30, 2000

---

Age	Number	Annual Benefit
<b>Retirees and Survivors</b>		
Under 50	513	\$ 2,082,196
50-54	246	4,663,309
55-59	2,236	56,323,258
60-64	4,333	108,354,528
65-69	5,505	131,192,103
70 & Over	<u>16,754</u>	<u>288,167,596</u>
Total	29,587	\$590,782,991
<b>Disabilitants</b>		
Under 50	287	\$ 3,712,745
50-54	204	2,849,447
55-59	199	2,824,000
60-64	210	3,276,092
65-69	161	2,301,426
70 & Over	<u>142</u>	<u>1,282,379</u>
Total	1,203	\$ 16,246,089

**Appendix C**  
**Actuarial Determinations**

---

---

**TABLE 6 - SUMMARY OF ACTUARIAL VALUES**  
**AS OF JUNE 30, 2000**

(\$ IN MILLIONS)

	APV of Projected Benefits	Projected Unit Credit Values	
		Actuarial Accrued Liability (AAL)	Normal Cost (NC)
<b>1. Active Members</b>			
a. Retirement	\$ 8,924.9	\$ 5,458.6	\$329.5
b. Death	436.6	270.3	17.8
c. Disability	1,238.1	780.3	61.3
d. Termination	759.9	495.3	49.2
Total - Active Members	<u>\$11,359.5</u>	<u>\$ 7,004.5</u>	<u>\$457.8</u>
<b>2. Benefit Recipients</b>			
a. Retirement	\$ 5,615.1	\$ 5,615.1	0
b. Survivor	397.6	397.6	0
c. Disability	213.5	213.5	0
Total - Benefit Recipients	<u>\$ 6,226.2</u>	<u>\$ 6,226.2</u>	<u>\$ 0</u>
<b>3. Other Inactive</b>	\$ 448.3	\$ 448.3	
<b>4. Grand Total</b>	<u>\$18,034.0</u>	<u>\$13,679.0</u>	<u>\$457.8</u>
<b>5. Operating Expense</b>			11.7
<b>6. Total Normal Cost</b>			<u>\$469.5</u>

TABLE 7 - ANALYSIS OF CHANGE IN UNFUNDED  
ACTUARIAL ACCRUED LIABILITY

FOR THE YEAR ENDING JUNE 30, 2000

(\$ IN MILLIONS)

---

1.	Actuarial (Gain)/Loss on AAL		
	(a) AAL 6/30/99		\$12,617.5
	(b) Normal Cost FY00	\$448.8	
	(c) Benefits Paid FY00	(637.0)	
	(d) Interest on (a), (b), and (c)	1,064.5	
	(e) Expected AAL 6/30/00 (a+b+c+d)		13,493.8
	(f) Actual AAL 6/30/00		<u>13,679.0</u>
	(g) Actuarial (Gain)/Loss on AAL (f-e)		\$ 185.2
2.	Actuarial (Gain)/Loss on Assets		
	(a) Assets 6/30/99		\$ 10,761.7
	(b) Contributions FY00	463.6	
	(c) Benefits	(637.0)	
	(d) Expense and other outflows	(18.7)	
	(e) Interest at 8.5%	906.8	
	(f) Expected Assets 6/30/99 (a+b+c+d+e)		11,476.4
	(g) Actual Assets 6/30/99		<u>12,063.9</u>
	(h) Actuarial (Gain)/Loss on Assets (f-g)		\$ (587.5)
3.	Total Actuarial (Gain)/Loss		
	(a) (Gain)/Loss on AAL		\$ 185.2
	(b) (Gain)/Loss on Assets		<u>(587.5)</u>
	(c) Net (Gain)/Loss (a+b)		\$ (402.3)



TABLE 8 - ANALYSIS OF ACTUARIAL GAINS AND LOSSES IN FY 2000

(\$ IN MILLIONS)

	Amount of (Gain) or Loss		
	FY 1998	FY 1999	FY 2000
Investment Return	\$(765.7)	\$(273.3)	\$(587.5)
Salary Increase	5.2	44.3	171.5
Age and Service Retirement	21.7	58.2	42.5
General Employment Termination	(13.8)	(18.3)	(113.7)
Disability Incidence	5.5	(19.3)	(15.5)
In Service Mortality	1.2	1.2	2.9
Benefit Recipient	34.0	162.7	33.2
New Entrants	26.4	24.1	45.9
Other	<u>26.8</u>	<u>106.3</u>	<u>18.4</u>
Total Actuarial (Gain) Loss	\$(712.4)	\$ 85.9	\$(402.3)

TABLE 9 - SCHEDULE OF FUNDING STATUS  
 (\$ IN 000's)

Year	Assets*	AAL	UAAL	Funding Ratio	Payroll/DB	UAAL as % of Payroll
1991	\$ 3,529,800	\$ 6,647,500	\$3,117,700	53.10%	\$1,768,549	176.29%
1992	3,901,500	7,359,600	3,458,100	53.01	1,947,913	177.53
1993	4,188,500	7,838,200	3,649,700	53.44	2,106,167	173.29
1994	4,446,900	8,585,500	4,138,600	51.80	2,140,139	193.38
1995	4,673,287	9,378,486	4,705,199	49.83	2,237,025	210.33
1996	5,082,891	10,155,039	5,072,148	50.05	2,330,038	217.69
1997	5,750,637	10,552,216	4,801,579	54.50	2,298,029	208.94
1997*	8,376,347	10,552,216	2,175,869	79.38	2,298,029	94.68
1998	9,793,809	11,416,095	1,622,286	85.79	2,377,578	68.23
1999	10,762,157	12,617,495	1,855,338	85.30	2,411,118	76.95
2000	12,063,950	13,679,039	1,615,089	88.19	2,424,209	66.62

\* Book Value up to second 1997 value, then Market Value

AAL - Actuarial Accrued Liability

UAAL - Unfunded Actuarial Accrued Liability

TABLE I O - SCHEDULE OF EMPLOYER CONTRIBUTIONS

(\$ IN MILLIONS)

Year	Total ARC*	Member Contributions	Net State ARC	Actual State Contribution	State Cont. as Percent of Net ARC
1991	\$570.1	\$152.4	\$417.7	\$117.6	28.15%
1992	610.1	170.4	439.7	108.6	24.71
1993	651.8	175.7	476.1	127.8	26.85
1994	706.8	183.1	523.7	133.8	25.55
1995	739.5	185.9	553.6	128.1	23.14
1996	787.1	197.0	590.1	147.4	24.97
1997	634.8	202.2	432.6	182.0	42.08
1998**	512.1	221.7	290.4	227.8	78.44
1999	509.2	213.0	296.2	237.9	80.32
2000	547.8	222.5	325.3	241.1	74.11
2001	548.1				

\* ARC - Annual Required Contribution as defined in GASB Statements #25 and 27

\*\* Assets at market value.

TABLE I I  
GENERAL INFORMATION GASB #25

---

**Development of Net Pension Obligation**  
**June 30, 2000**  
**(\$ in Millions)**

1. NPO at 6-30-99		\$3,591.4
2. State Expense for FY 2000	458.3	
3. State Contribution for FY 2000	<u>241.1</u>	
4. Excess of Expense over Contribution (2-3)		<u>217.2</u>
5. NPO at 6-30-00 (1+4)		\$3,808.6

**Development of ARC and Expense for FY 2001**  
**(\$ in Millions)**

1. Normal Cost		\$ 469.5
2. Amortization of UAAL (36 years remaining)		<u>78.6</u>
3. Total ARC (1+2)		548.1
4. Interest on NPO		323.7
5. NPO Adjustment		<u>(185.2)</u>
6. Total Expense (Including member contributions) (3+4+5)		\$ 686.6

**Notes in Trend Data**

**Information**

Valuation Date  
Actuarial Cost Method  
Amortization Method  
Remaining Amortization Period (years)  
Asset Valuation Method

**Data**

6/30/2000  
Projected Unit Credit  
Level Percent, Open  
36 years  
Market

**Actuarial Assumptions**

Investment rate of return	8.5%
Projected salary increases	5.5% - 9.7%
Cost-of-living adjustments	3.0%

TABLE 1 2  
 PROJECTED STATE CONTRIBUTIONS FOR RETIREMENT  
 ACTUARIAL VALUATION AS OF JUNE 30, 2000

45% SELECT PORTABLE SURS

	33% of New Members to SMP			
	SURS Cont.	SMP Cont.	Total Contribution	
			\$	% of Pay
2001	\$ 240.212	\$ 18.392	\$ 258.604	9.50%
2002	250.185	21.239	271.424	9.52
2003	260.118	27.046	287.164	9.65
2004	270.061	31.320	301.382	9.70
2005	280.169	35.688	315.858	9.76
2006	290.621	40.274	330.896	9.81
2007	301.476	45.134	346.609	9.86
2008	312.647	50.284	362.931	9.90
2009	324.274	55.733	380.007	9.95
2010	336.406	61.483	397.890	9.99
2011	349.056	67.560	416.617	10.03
2012	365.851	73.984	439.836	10.16
2013	381.713	80.758	462.471	10.23
2014	398.436	87.859	486.295	10.31
2015	416.136	95.267	511.403	10.38
2016	434.800	102.997	537.797	10.45
2017	454.451	111.082	565.533	10.51
2018	475.245	119.501	594.745	10.57
2019	497.270	128.229	625.499	10.63
2020	520.578	137.285	657.862	10.68
2021	545.192	146.653	691.846	10.72
2022	571.192	156.353	727.545	10.76
2023	598.666	166.394	765.059	10.80

(Continued on next page)

TABLE I 2  
 PROJECTED STATE CONTRIBUTIONS FOR RETIREMENT  
 ACTUARIAL VALUATION AS OF JUNE 30, 2000  
 (CONCLUDED)

45% SELECT PORTABLE SURS

	33% of New Members to SMP			
	SURS Cont.	SMP Cont.	Total Contribution	
			\$	% of Pay
2024	\$ 627.701	\$ 176.766	\$ 804.467	10.83%
2025	658.346	187.510	845.856	10.85
2026	690.720	198.623	889.343	10.88
2027	724.841	210.129	934.970	10.90
2028	760.809	222.066	982.875	10.91
2029	798.698	234.441	1,033.139	10.93
2030	838.598	247.307	1,085.905	10.94
2031	880.585	260.667	1,141.252	10.95
2032	924.763	274.565	1,199.329	10.96
2033	971.186	289.051	1,260.237	10.96
2034	1,019.990	304.158	1,324.148	10.97
2035	1,071.261	319.925	1,391.185	10.97
2036	1,125.120	336.392	1,461.512	10.97
2037	1,181.688	353.597	1,535.284	10.98
2038	1,241.060	371.602	1,612.662	10.98
2039	1,303.409	390.454	1,693.863	10.98
2040	1,368.842	410.205	1,779.047	10.98
2041	1,437.539	430.902	1,868.442	10.98
2042	1,509.654	452.596	1,962.250	10.98
2043	1,585.352	475.342	2,060.694	10.98
2044	1,664.814	499.206	2,164.020	10.98
2045	<u>1,748.222</u>	<u>524.242</u>	<u>2,272.464</u>	10.98
Total	\$33,007.954	\$9,030.262	\$42,038.216	



**Appendix D**  
**Actuarial Method and Assumptions**

---

---

## PROJECTED UNIT CREDIT METHOD

---

The Projected Unit Credit Method is mandated under Section 15-155 as the actuarial valuation to be used for all purposes under SURS.

The concept of this method is that funding of benefits should occur as benefits are accrued (earned) by active members of SURS.

The Normal Cost (NC) for a fiscal year under this method is the actuarial present value of all benefits expected to be accrued during the fiscal year. The Actuarial Accrued Liability (AAL) under this method is the actuarial present value of all benefits accrued to the valuation date. To the extent that the assets of the fund are insufficient to cover the AAL, an Unfunded Actuarial Accrued Liability (UAAL) develops. Under the classical application of this method, the contribution for a year is the NC for that year plus an amount to amortize the UAAL.

Under Section 15-155, the employer/State contribution is determined such that the assets of SURS reach 90% of the AAL by the end of FY 2045.

This contribution is determined as a level percentage of pay for all years except that the contribution rates through 2010 shall grade in equal steps to the desired level contribution rate.

ACTUARIAL ASSUMPTIONS  
(ADOPTED EFFECTIVE JULY 1, 1996)

---

**Rate of Investment Return.** For all purposes under the system the rate of investment return is assumed to be 8.5% per annum.

**Effective Rate of Interest:** The assumed rate credited to member accounts is 9.0% per annum.

**Annual Compensation Increases.** Each member's compensation is assumed to increase by 5.5% each year, 5% reflecting general increases and .5% reflecting merit, promotion, longevity, and other increases. That rate is increased for members with less than 6 years of service, as follows:

<u>Service Year</u>	<u>Additional Increase</u>
0	.0400
1	.0300
2-4	.0175
5	.0100

**Mortality.** Uninsured Pensioners Mortality Table for 1994 ("UP94") without adjustment.

**Disability.** A table of disability incidence with sample rates follows:

<u>Age</u>	<u>Males</u>	<u>Females</u>
20	0.0000	0.0000
30	0.0012	0.0017
40	0.0018	0.0028
50	0.0042	0.0062
60	0.0176	0.0162
70	0.0100	0.0200

ACTUARIAL ASSUMPTIONS  
(ADOPTED EFFECTIVE JULY 1, 1996)  
(CONTINUED)

---

*Retirement.* Upon eligibility, active members are assumed to retire as follows:

<u>Age</u>	<u>Males</u>	<u>Females</u>
50-55	.060	.070
56	.050	.050
57	.060	.050
58	.070	.050
59	.090	.070
60	.110	.100
61	.140	.110
62	.150	.140
63	.140	.120
64	.170	.160
65	.240	.240
66	.220	.180
67	.210	.220
68	.240	.200
69	.280	.230
70	1.000	1.000

ACTUARIAL ASSUMPTIONS  
(ADOPTED EFFECTIVE JULY 1, 1996)  
(CONTINUED)

---

*General Turnover.* A table of termination rates based on experience in the 1986-91 period. The assumption consists of a table of ultimate turnover rates by age and a set of multipliers for adjustment of those ultimate rates for those with less than 10 years of service. A sample of the ultimate rates follows:

<u>Age</u>	<u>ALL Members</u>
20	.0650
30	.0546
40	.0312
50	.0172
60	.0339
70	.0696

The adjustment factors for the first 10 years of service follow:

<u>Service Year</u>	<u>ALL Members</u>
0	5.75
1	5.75
2	4.70
3	3.90
4	3.20
5	2.50
6	2.15
7	1.80
8	1.50
9	1.25

Part time members with less than 3 years of service are assumed to terminate at the valuation date.

ACTUARIAL ASSUMPTIONS  
(ADOPTED EFFECTIVE JULY 1, 1996)  
(CONTINUED)

---

*Operational Expenses.* The amount of operational expenses incurred in the latest fiscal year are supplied by SURS staff and incorporated in the Normal Cost.

*Marital Status.* Members are assumed to be married in the following proportions:

<u>Age</u>	<u>Males</u>	<u>Females</u>
20	25%	40%
30	70	75
40	80	80
50	85	85
60	85	70

*Spouse Age.* The female spouse is assumed to be 3 years younger than the male spouse.

**Appendix E**  
**Summary of Benefit Provisions**  
**of Traditional SURS**

---

---

## GENERAL

---

### MEMBERSHIP

Any employee of a public institution of higher education or community college in the state of Illinois who is expected to be employed for at least 4 months or an academic term, if lesser, is a member of SURS except the following employees are not members:

1. A student employed temporarily at less than full time,
2. A person receiving a retirement benefit or disability retirement annuity from SURS,
3. An employee participating in the Social Security System by virtue of such employment or a part time employee participating in a special optional plan.

### MEMBER CONTRIBUTIONS

Most members contribute a total of 8% of compensation, broken down as follows:

Retirement Annuity	6.5%
Survivor Benefits	1.0%
Annual Increases in Retirement Benefits	.5%

Police officers and firefighters contribute a total of 9.5% of compensation, with the additional 1.5% allocated to the retirement annuity.

Since January 1, 1981, the member contributions under SURS have been "picked up" by employers.

### EFFECTIVE RATE OF INTEREST

The interest rate credited to member contribution accounts for most purposes under the system is called the Effective Rate of Interest ("ERI"). The ERI is established annually by the Board.

For the purpose of withdrawal of contributions at termination, this rate is set at 4.5% by statute.



## RETIREMENT BENEFITS

---

### NORMAL RETIREMENT:

#### *Eligibility*

For police officers and firefighters, separation from service on or after the attainment of the earlier of:

1. Age 55 with 20 years of service, or
2. Age 50 with 25 years of service.

For other members, separation from service on or after attainment of the earlier of:

1. Age 62 with 5 years of service,
2. Age 60 with 8 years of service, and
3. 30 years of service regardless of age – reverts to 35 years of service after 2002.

#### *Initial Benefit Amount*

There are 3 alternate formulae. The initial benefit is the largest produced by one of the three:

1. General Formula: The following percentages of high 4 consecutive year average compensation for each year of service:

<u>Year of Service</u>	<u>General</u>	<u>Police/Fire</u>
1 <sup>st</sup> 10 Years	2.20%	2.25%
Next 10 Years	2.20	2.50
Next 10 Years	2.20	2.75
Over 30	2.20	2.75

2. Money Purchase Formula:
  - a) The member contributions for retirement benefit accumulated with interest at the ERI plus

- b) An imputed employer contribution match at \$1.40 per dollar of member contribution accumulated with interest at the ERI.
  - c) The total of the accumulations in (a) and (b) is converted into an annuity using a life annuity factor that takes into account neither the automatic 50% spousal survivor benefit nor the automatic annual increases.
3. Minimum Benefit - A benefit for each year of service, up to 30, based on final annual pay, as follows:

Under 3,500	\$ 8
\$3,500 - \$4,500	9
\$4,500 - \$5,500	10
\$5,500 - \$6,500	11
\$6,500 - \$7,500	12
\$7,500 - \$8,500	13
\$8,500 - \$9,500	14
Over \$9,500	15

4. Minimum Retirement Annuity – No retiree shall receive a retirement annuity less than \$25/month for each year of service up to 30.

***Maximum Benefit***

80% of high 4 year average compensation.

***Benefit Duration***

The Normal Retirement benefit is payable for the lifetime of the retired member. If the retiree has a spouse at date of retirement and if that spouse survives the retiree the spouse will receive, upon the death of the retiree, a survivor benefit equal to 50% of the monthly benefit being paid to the retiree as of the date of death. Such benefit will continue for the lifetime of the surviving spouse.

### *Annual Increases*

Each January 1, subsequent to retirement date the monthly benefit being paid each retiree shall be increased by 3%. The adjustment for the first January after retirement shall be proportional.

## EARLY RETIREMENT

### *Eligibility*

For members other than police and fire employees, separation from service on or after attainment of age 55 with 8 years of service but not eligible for Normal Retirement.

### *Benefits*

The benefit amounts and all terms of benefit payment are the same as that for Normal Retirement, except that the benefit amounts calculated under the General Formula and the Minimum Formula shall be reduced by .5% for each month by which the retirement date precedes the 60<sup>th</sup> birthday.

### *“Buy Down” of Early Retirement Reduction*

A member retiring on an early retirement prior to September 1, 1997 may make an additional contribution at retirement and eliminate the reduction applied to his early retirement benefit. The contribution is 7% of final compensation multiplied by the lesser of:

1. the number of years by which 60 exceeds the member's age, and
2. the number of years by which 30 exceeds the member's years of service.

Each employer may limit participation in this option to 15% of those eligible in any year.

## BENEFITS ON DEATH BEFORE RETIREMENT

---

### SURVIVOR BENEFITS

#### *Eligibility*

Death of an active member with at least 1.5 years of service or a terminated member with at least 10 years of service. For this purpose, service under the State Employees' Retirement System, the State Teachers' Retirement System, and the Chicago Teacher's Retirement System is recognized.

#### *Benefits*

An annuity to the surviving spouse equal to the greater of:

1. 50% of the benefit accrued to the date of the death of the member, and
2. the applicable benefit from the following list:
  - a) \$400 per month to a single survivor (spouse, child or dependent parent), or
  - b) \$600 to two or more survivors.

#### *Benefit Duration*

Surviving spouse may receive a lifetime benefit commencing at the later of the member's date of death and the spouse's attainment of age 50. Benefits are payable to a spouse at an earlier date so long as there is a surviving dependent, unmarried child under age 18 (over 18 if disabled).

#### *Annual Adjustments*

Survivor annuities are subject to the same annual adjustments made to retirement benefits.

## LUMP SUM DEATH BENEFIT

### *Eligibility*

Death of member prior to retirement.

### *Benefit*

The following are payable to the member's beneficiary:

1. Refund of accumulated member contributions for retirement and annual adjustment,
2. \$1,000
3. If survivor benefits not payable,
  - a) Refund of the accumulated member contribution for survivor benefits, and
  - b) \$5,000 to a dependent beneficiary or \$2,500 to a non-dependent beneficiary

## BENEFITS FOR DISABILITY

---

### DISABILITY BENEFIT

#### *Eligibility*

Disablement for over 60 days after 2 years of service. The service requirement is waived if the disablement is accidental.

Disability definition - "His occupation".

Pregnancy and childbirth are, by definition, disablement.

#### *Benefit*

50% of the basic compensation paid at date of disablement. This base benefit level is offset dollar for dollar by each of the following:

1. Earnings while disabled in excess of the disability benefit.
2. Other disability insurance either fully or partially employer provided.
3. Worker's compensation benefits.

#### *Duration of Benefit*

Benefits become payable 60 days after disablement and continue to the earlier of the following:

1. Recovery or death
2. Benefits paid equal 50% of total compensation during the period of SURS service
3. If disablement occurs prior to age 65, the attainment of age 70
4. If disablement occurs at or after attainment of age 65, completion of 5 years in disablement.

If, at discontinuance of the disability benefit, the member is eligible for a retirement benefit (based on service, which includes the period of disability), the member may retire and receive that benefit.

### ***Annual Adjustment***

On January 1 following the 4<sup>th</sup> anniversary of commencement of the disability benefit, the benefit is increased by 7%. On each subsequent anniversary, the benefit is increased by an additional 3%.

## **DISABILITY RETIREMENT ANNUITY**

### ***Eligibility***

Continuing disablement after discontinuation of the disability benefit as a result of reaching the "50% of total earnings" limitation. Disability is defined in accordance with the Social Security disability definition.

### ***Benefit***

35% of the compensation being earned at disablement.

### ***Duration of Benefit***

Benefits become payable upon discontinuance of the disability benefit and continue to the earlier of the following:

1. Recovery or death
2. Election to receive a retirement benefit

### ***Annual Adjustments***

None.