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The Report of the  
June 30, 1999 Actuarial Valuation  
of the  
State Universities Retirement  
System of Illinois



Gabriel, Roeder, Smith & Company



Actuaries & Consultants

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September 30, 1999

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, 1999.

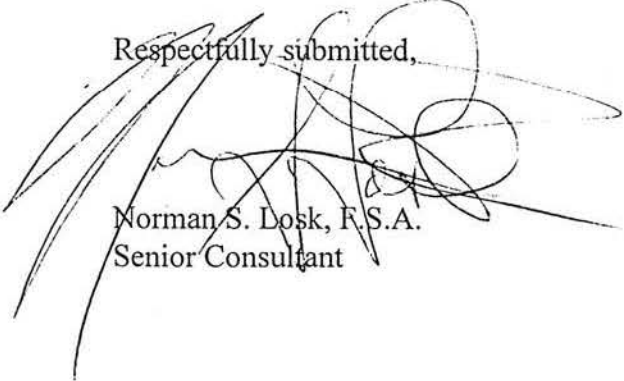
This valuation provides information on the funding status of SURS. In addition, it includes a determination of State contribution level for the fiscal year ending June 30, 2001, under Section 15-155 of the SURS statute and estimates of contribution for subsequent years.

This valuation is based on the provisions of SURS in effect as of June 30, 1999, 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. Dosk, F.S.A.  
Senior Consultant

NSL:cml

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## Summary of the Valuation



## PURPOSES OF THE ACTUARIAL VALUATION

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At your request we have performed the actuarial valuation of the State Universities Retirement System of Illinois ("SURS") as of June 30, 1999.

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, 2001 and to estimate contributions required under that Section for the subsequent years of the funding period ending in the year 2045.

## REPORT HIGHLIGHTS

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In the 1999 Fiscal Year, initial implementation of two new benefit options under SURS was completed. The new Self-Managed Plan ("SMP") and the new Portable defined benefit option were implemented throughout the Fiscal Year. Their impact on the results of this valuation were minor, but meaningful.

FY 1999 was the fifth successive year of double-digit investment performance. The returns for the year ending June 30, 1999, amounted to about 11.5%, significantly lower than those of the prior four years but still in excess of the assumed rate.

This valuation, with assets based on market value, has developed a funding ratio of 85.3%, a slight decrease from the prior year. This reduction is primarily the result of actuarial losses from retirements and retiree longevity.

The contribution levels set out in this report are slightly lower than those projected last year. This is primarily the result of generally lower projected pay levels.

## ACTUARIAL ASSUMPTIONS

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

## SURS BENEFITS

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There were no other 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 3,740 members 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, 11,136 members had chosen the Portable Option of a total of 66,843 full-time members continuing under Defined Benefit provisions of SURS.

## EXPERIENCE DURING 1999

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Overall the system experienced an actuarial loss of about \$86 million in the 1999 Fiscal Year.

Based on market value, the gain from investment return was about \$273 million. There was a loss of about \$44 million from the pay increase assumption. The loss from demographic experience was about \$315 million.

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

1. AAL - Prior Year	\$11,416.1
2. Normal Cost - Prior Year	434.3
3. Benefits Paid in FY 1999	(557.3)
4. Interest on the above items	<u>965.2</u>
5. Expected AAL 6/30/99 (1+2-3+4)	12,258.3
6. Actual AAL 6/30/99	<u>12,617.5</u>
7. Actuarial (Gain) or Loss on Liabilities (6-5)	359.2

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	\$(273.3)
2. Actuarial Loss on Liabilities	<u>359.2</u>
3. Total Actuarial (Gain) or Loss (1+2)	85.9

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

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## STATUTORY APPROPRIATIONS FOR THE 2001 FISCAL YEAR AND BEYOND

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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 2001 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
2001	\$244.4	\$14.2	\$258.6
2002	253.2	16.8	270.0
2003	262.3	20.4	282.7
2004	271.6	22.7	294.3
2005	281.4	26.5	307.9
2006	291.6	30.5	322.1

We recommend that the Employer/State contribution for FY 2001 be set at \$258,604,000.

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 August 31, 1999, only about 18% of new entrants (representing over 25% 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

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The Governmental Accounting Standards Board ("GASB") has promulgated Statements Number 25 and 27 which mandate, among other things, the use of market or market related asset value. These statements are now in effect for the statewide retirement systems in the State of Illinois. 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 \$9,793.8 million as of June 30, 1998 to \$10,762.1 million as of June 30, 1999.

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

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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 was reduced slightly from 85.8% at June 30, 1998 to 85.3% at June 30, 1999.

## GASB DISCLOSURE

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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

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Appendix A  
Asset Information

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TABLE I – NET ASSETS AVAILABLE FOR BENEFITS

(\$ IN MILLIONS)

	Actuarial Valuation as of June 30,	
	1998	1999
ASSETS		
Accrued Investment Income	\$ 27.7	\$ 21.0
Contributions Receivable	20.4	9.6
Other Receivables	.0	123.0
Investments	9,761.2	11,024.7
Prepaid Expense	.0	.1
Fixed Assets	14.2	15.9
Total Assets	\$9,823.5	\$11,194.3
ACCOUNTS PAYABLE	29.7	432.2
NET ASSETS AVAILABLE FOR BENEFITS	<u>\$9,793.8</u>	<u>\$10,762.1</u>

TABLE 2 - CHANGE IN ASSETS AVAILABLE FOR BENEFITS

(\$ IN MILLIONS)

	Actuarial Valuation June 30,	
	1998	1999
1. Assets Available at Beginning of Year	\$8,376.3	\$ 9,793.8
Adjustment		<u>(1.8)</u>
Adjusted Beginning Value		9,792.0
2. Revenues		
a. Member Contributions	\$ 221.7	\$ 212.9
b. Employer Contributions (includes State)	227.8	238.3
c. Investment Income	225.6	194.5
d. Investment Expense	(13.2)	(14.2)
e. Capital Gains (Losses)	<u>1,262.8</u>	<u>921.8</u>
Total Revenues	\$1,924.7	\$ 1,553.3
3. Expenses		
a. Benefits	\$ 466.5	\$ 526.0
b. Refunds	29.7	31.3
c. Administration Expense	8.4	10.0
d. SMP Transfers	1.5	14.6
e. Other	<u>1.2</u>	<u>1.3</u>
Total Expense	\$ 507.3	\$ 583.2
4. Assets Available at End of Year	\$9,793.8	\$10,762.1

Appendix B  
Membership Data

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TABLE 3 - SUMMARY OF DATA CHARACTERISTICS

(\$ IN MILLIONS)

	June 30, 1998		June 30, 1999	
	Number	Earnings	Number	Earnings
<b>Active Members</b>				
Full time				
Traditional SURS	69,423	\$2,377.6	55,707	\$1,973.9
Portable SURS			11,135	409.1
SMP			3,740	119.1
Total full time	<u>69,423</u>	<u>\$2,377.6</u>	<u>70,582</u>	<u>\$2,502.1</u>
Part time	<u>7,746</u>	<u>22.6</u>	<u>7,824</u>	<u>28.1</u>
Total	77,156	\$2,400.2	78,406	\$2,530.2
<b>Inactive Members</b>	38,054		41,814	
	Number	Annual Benefits	Number	Annual Benefits
<b>Benefit Recipients</b>				
Retirement	21,623	\$422.8	22,652	\$477.6
Survivor	5,152	37.0	5,436	41.0
Disability	<u>1,257</u>	<u>16.2</u>	<u>1,254</u>	<u>16.5</u>
Total	<u>28,032</u>	<u>\$476.0</u>	<u>29,342</u>	<u>\$535.1</u>

TABLE 4  
DISTRIBUTION OF FULL TIME ACTIVE MEMBERS BY AGE AND YEARS OF SERVICE  
AS OF JUNE 30, 1999

Age	Years of Service								Totals
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 & Over	
Under 20	26	14							40
	106,572	71,790							178,362
20-24	409	705	31						1,145
	3,560,099	11,366,896	503,866						15,430,861
25-29	779	3,016	554	15	-	-	-	-	4,364
	8,894,289	73,188,063	14,352,777	398,053	-	-	-	-	96,833,182
30-34	714	3,562	1,832	461	14	-	-	-	6,583
	9,221,308	102,651,078	55,861,626	14,010,643	446,490	-	-	-	182,191,145
35-39	644	3,416	2,688	1,455	427	26	-	-	8,656
	8,578,326	100,270,032	90,200,832	53,438,731	14,557,522	899,845	-	-	267,945,288
40-44	549	2,965	3,126	2,078	1,174	394	18		10,304
	6,838,248	87,251,929	105,439,318	91,057,969	48,746,953	14,249,505	687,266		354,271,188
45-49	474	2,682	3,680	2,457	1,699	996	294	25	12,307
	6,245,492	77,209,640	117,267,181	108,995,831	84,790,377	46,278,141	12,852,315	1,078,421	454,717,398
50-54	335	2,040	3,294	2,090	1,743	1,291	773	300	11,866
	4,599,822	56,340,551	92,841,596	92,327,118	90,083,524	73,803,050	47,975,246	15,351,808	473,322,715
55-59	196	1,209	1,997	1,289	1,072	977	902	818	8,460
	2,356,488	30,379,394	53,076,521	54,849,477	52,702,396	58,007,591	63,543,386	59,774,832	374,690,085
60-64	92	606	1,030	536	509	471	415	638	4,297
	1,339,668	11,983,659	26,035,813	21,862,215	23,890,296	26,526,995	28,483,969	48,190,950	188,313,565
65&Over	28	354	874	281	238	222	177	386	2,560
	195,798	4,795,216	13,643,910	11,136,577	11,436,505	12,315,598	11,422,326	29,229,784	94,175,714
Totals	4,246	20,569	19,106	10,662	6,876	4,377	2,579	2,167	70,582
	51,936,110	555,508,248	569,223,440	448,076,614	326,654,063	232,080,725	164,964,508	153,625,795	2,502,069,503

TABLE 5 - DISTRIBUTION OF BENEFIT RECIPIENTS BY AGE  
NUMBER OF BENEFIT RECIPIENTS AND THEIR ANNUAL BENEFITS  
AS OF JUNE 30, 1999

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Age	Number	Annual Benefit
<b>Retirees and Survivors</b>		
Under 50	570	\$ 2,248,619
50-54	227	3,586,568
55-59	1,957	42,093,043
60-64	3,948	92,057,065
65-69	5,380	122,013,802
70 & Over	<u>16,001</u>	<u>256,616,867</u>
Total	28,083	\$518,615,965
 <b>Disabilitants</b>		
Under 50	300	\$ 3,560,959
50-54	210	2,803,805
55-59	214	3,024,523
60-64	201	3,109,909
65-69	187	2,615,974
70 & Over	<u>142</u>	<u>1,364,188</u>
Total	1,254	\$ 16,479,357

Appendix C  
Actuarial Determinations

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TABLE 6 - SUMMARY OF ACTUARIAL VALUES

AS OF JUNE 30, 1999

(\$ IN MILLIONS)

	APV of Projected Benefits	Projected Unit Credit Values	
		Actuarial Accrued Liability (AAL)	Normal Cost (NC)
<b>1. Active Members</b>			
a. Retirement	\$ 8,746.4	\$ 5,305.4	\$322.3
b. Death	401.8	252.4	16.2
c. Disability	1,226.5	765.8	61.0
d. Termination	749.5	483.6	49.3
Total - Active Members	<u>\$11,124.2</u>	<u>\$ 6,807.2</u>	<u>\$448.8</u>
<b>2. Benefit Recipients</b>			
a. Retirement	\$ 4,870.9	\$ 4,870.9	0
b. Survivor	376.2	376.2	0
c. Disability	215.6	215.6	0
Total - Benefit Recipients	<u>\$ 5,462.7</u>	<u>\$ 5,462.7</u>	<u>\$ 0</u>
<b>3. Other Inactive</b>	\$ 347.6	\$ 347.6	
<b>4. Grand Total</b>	<u>\$16,934.5</u>	<u>\$12,617.5</u>	<u>\$448.8</u>
<b>5. Operating Expense</b>			10.0
<b>6. Total Normal Cost</b>			<u>\$458.8</u>

TABLE 7 - ANALYSIS OF CHANGE IN UNFUNDED  
ACTUARIAL ACCRUED LIABILITY  
FOR THE YEAR ENDING JUNE 30, 1999  
(\$ IN MILLIONS)

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1.	Actuarial (Gain)/Loss on AAL		
	(a) AAL 6/30/98		\$11,416.1
	(b) Normal Cost FY99	\$434.3	
	(c) Benefits Paid FY99	(557.3)	
	(d) Interest on (a), (b), and (c)	965.2	
	(e) Expected AAL 6/30/99 (a+b+c+d)		12,258.3
	(f) Actual AAL 6/30/99		<u>12,617.5</u>
	(g) Actuarial (Gain)/Loss on AAL (g-f)		\$ 359.2
2.	Actuarial (Gain)/Loss on Assets		
	(a) Assets 6/30/98		\$ 9,793.8
	(b) Contributions FY99	451.3	
	(c) Benefits	(557.3)	
	(d) Expense and other outflows	(25.8)	
	(e) Interest at 8.5%	826.9	
	(f) Expected Assets 6/30/99 (a+b+c+d+e)		10,488.8
	(g) Actual Assets 6/30/99		<u>10,762.1</u>
	(h) Actuarial (Gain)/Loss on Assets (f-g)		\$ (273.3)
3.	Total Actuarial (Gain)/Loss		
	(a) (Gain)/Loss on AAL		\$ 359.2
	(b) (Gain)/Loss on Assets		<u>(273.3)</u>
	(c) Net (Gain)/Loss (a+b)		\$ 85.9

TABLE 8 - ANALYSIS OF ACTUARIAL GAINS AND LOSSES IN FY 1999

(\$ IN MILLIONS)

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



TABLE 9 - SCHEDULE OF FUNDING STATUS

(\$ IN MILLIONS)

Year	Assets*	AAL	UAAL	Funding Ratio	Payroll	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

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

*AAL - Actuarial Accrued Liability*

*UAAL - Unfunded Actuarial Accrued Liability*

TABLE 10 - SCHEDULE OF EMPLOYER CONTRIBUTIONS

(\$ IN MILLIONS)

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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	837.0	202.2	634.8	182.0	28.68
1998**	512.1	221.7	368.1	227.8	78.44
1999	509.2	213.0	296.2	238.3	80.46
2000	547.8				

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

\*\* Assets at market value.

TABLE I I  
GENERAL INFORMATION GASB #25

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**Development of Net Pension Obligation  
June 30, 1999  
(\$ in Millions)**

1. NPO at 6-30-98		\$3,400.9
2. State Expense for FY 99	428.4	
3. State Contribution for FY 99	<u>238.3</u>	
4. Excess of Expense over Contribution (2-3)		<u>190.1</u>
5. NPO at 6-20-99 (1+4)		\$3,591.0

**Development of ARC and Expense for FY 2000  
(\$ in Millions)**

1. Normal Cost		\$ 458.8
2. Amortization of UAAL (37 years remaining)		<u>89.0</u>
3. Total ARC (1+2)		547.8
4. Interest on NPO		305.0
5. NPO Adjustment		<u>(172.1)</u>
6. Total Expense (Including member contributions) (3+4+5)		\$ 680.7

**Notes in Trend Data**

**Information**

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

**Data**

6/30/99  
Projected Unit Credit  
Level Percent, Open  
37 years  
Market

**Actuarial Assumptions**

Investment rate of return  
Projected salary increases  
Cost-of-living adjustments

8.5%  
5.5% - 9.7%  
3.0%

TABLE I 2  
 PROJECTED STATE CONTRIBUTIONS FOR RETIREMENT  
 ACTUARIAL VALUATION AS OF JUNE 30, 1999

45% SELECT PORTABLE SURS

	33% of New Members to SMP			
	SURS Cont.	SMP Cont.	Total Contribution	
			\$	% of Pay
2000	\$ 235.891	\$ 11.696	\$ 247.587	9.46%
2001	244.446	14.158	258.604	9.54
2002	253.242	16.751	269.993	9.61
2003	262.277	20.396	282.673	9.71
2004	271.646	22.663	294.309	9.76
2005	281.402	26.495	307.897	9.86
2006	291.650	30.514	322.164	9.95
2007	302.320	34.752	337.072	10.04
2008	313.406	39.252	352.658	10.13
2009	324.987	44.019	369.006	10.22
2010	337.169	49.067	386.237	10.31
2011	350.010	54.411	404.421	10.40
2012	363.477	64.591	428.068	10.60
2013	377.672	70.561	448.233	10.68
2014	392.660	76.833	469.493	10.76
2015	408.572	83.385	491.957	10.84
2016	425.396	90.234	515.630	10.91
2017	443.137	97.414	540.551	10.98
2018	461.950	104.897	566.847	11.04
2019	481.954	112.674	594.629	11.10
2020	503.168	120.744	623.912	11.16
2021	525.657	129.113	654.770	11.21
2022	549.488	137.790	687.278	11.26
2023	574.742	146.782	721.524	11.30

(Continued on next page)

TABLE 1 2  
 PROJECTED STATE CONTRIBUTIONS FOR RETIREMENT  
 ACTUARIAL VALUATION AS OF JUNE 30, 1999  
 (CONCLUDED)

45% SELECT PORTABLE SURS

	33% of New Members to SMP			
	SURS Cont.	SMP Cont.	Total Contribution	
			\$	% of Pay
2024	\$ 601.520	\$ 156.088	\$ 757.608	11.33%
2025	629.869	165.732	795.601	11.37
2026	659.926	175.711	835.637	11.40
2027	691.683	186.043	877.727	11.42
2028	725.264	196.756	922.019	11.44
2029	760.725	207.860	968.584	11.46
2030	798.127	219.375	1,017.501	11.47
2031	837.573	231.318	1,068.890	11.48
2032	879.163	243.717	1,122.880	11.49
2033	922.936	256.610	1,179.546	11.50
2034	969.013	270.036	1,239.049	11.51
2035	1,017.474	284.002	1,301.476	11.51
2036	1,068.437	298.562	1,366.999	11.51
2037	1,122.014	313.742	1,435.756	11.52
2038	1,178.271	329.600	1,507.871	11.52
2039	1,237.373	346.175	1,583.548	11.52
2040	1,299.429	363.510	1,662.939	11.52
2041	1,364.608	381.654	1,746.262	11.52
2042	1,433.045	400.650	1,833.695	11.52
2043	1,504.893	420.553	1,925.447	11.51
2044	1,580.322	441.417	2,021.739	11.51
2045	<u>1,659.502</u>	<u>463.298</u>	<u>2,122.800</u>	11.51
Total	\$31,917.484	\$7,951.600	\$39,869.084	

Appendix D  
Actuarial Method and Assumptions

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## PROJECTED UNIT CREDIT METHOD

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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)

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*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>Multiplier</u>
0	1.0400
1	1.0300
2-4	1.0175
5	1.0100

*Mortality.* Uninsured Pensions 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)

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

Age	Males	Females
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)

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*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)

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*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:

Age	Males	Females
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

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## GENERAL

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### 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

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### 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.

#### *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

***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

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### 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

### 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.