

STATE UNIVERSITIES RETIREMENT SYSTEM
OF ILLINOIS

ACTUARIAL VALUATION
COMPLETED AS OF AUGUST 31, 1983

Chicago, Illinois
January 20, 1984

STATE UNIVERSITIES RETIREMENT SYSTEM
OF ILLINOIS

ACTUARIAL VALUATION COMPLETED AS OF AUGUST 31, 1983

Introduction

The law governing the State Universities Retirement System requires the Actuary, as the technical advisor to the Board of Trustees, to

...cause an annual determination to be made by a competent actuary of the liabilities and reserves of the system and an annual determination of the amount and distribution of the required employer contributions. (Chapter 108-1/2, Par. 15-173)

The Wyatt Company, as Actuary, has completed a valuation as of August 31, 1983, based upon membership and financial data compiled by the administrative staff of the System, and the results of the valuation are presented in this report.

There was one benefit change during the year that had an effect on the valuation. Supplemental annuities were granted to annuitants who terminated before August 15, 1969 with less than 15 years of service, with the change effective January 1, 1984. The approximate effect of this change was to increase the actuarial liability by \$1.5 million.

In total, the experience over the year was favorable relative to the actuarial assumptions, with an actuarial gain of slightly more than 2% of the actuarial liability. This was due to investment performance better than assumed and average salary increases smaller than assumed.

The remainder of this report is comprised of the following:

Valuation Results

Descriptions of Actuarial Method and Assumptions

Summary of Plan Provisions

Respectfully submitted,

THE WYATT COMPANY

By

Lloyd L. Nordstrom
Fellow of The Society of Actuaries

By

Robert L. Barnes
Fellow of The Society of Actuaries

Chicago, Illinois
January 20, 1984

STATE UNIVERSITIES RETIREMENT SYSTEM
OF ILLINOIS

Results of Actuarial Valuation
Completed as of August 31, 1983

BASIC DATA

1.	Number of Members:	
	(a) Active	40,897
	(b) Inactive	4,855
	(c) Members Receiving:	
	(i) Retirement Annuities	8,432
	(ii) Survivor Annuities	2,380
	(iii) Disability Annuities	899
	(d) Total	57,463
2.	Annual Reported Earnings	\$ 908,284,507
3.	Annual Benefit Payments Currently Being Made:	
	(a) Retirement	\$ 63,051,942
	(b) Survivor	7,306,857
	(c) Disability	6,603,636
	(d) Total	\$ 76,962,435

VALUATION RESULTS

4.	Actuarial Liability (Reserves):	
	(a) Members Receiving:	
	(i) Retirement Annuities	\$ 663,476,826
	(ii) Survivor Annuities	62,273,916
	(iii) Disability Annuities	54,921,732
	(iv) Total	\$ 780,672,474
	(b) For Inactive Members	139,751,512
	(c) For Active Members	2,123,003,213
	(d) Total	\$ 3,043,427,199
5.	Assets (Book Value)	\$ 1,403,406,843
6.	Unfunded Actuarial Liability	\$ 1,640,020,356

7.	Annual Normal Cost For Year Beginning 9/1/83*	As a Percent Of Covered Pay	Amount
(a)	Benefits	16.400%	\$ 148,957,410
(b)	Expenses	.539	4,900,000
(c)	Total	<u>16.939%</u>	<u>\$ 153,857,410</u>
(d)	Expected Member Contributions	7.912	71,865,330
(e)	Employer Normal Cost	<u>9.027%</u>	<u>\$ 81,992,080</u>
8.	"Expense" For Unfunded Actuarial Liability:*		
(a)	Interest Only	13.941%	\$ 126,623,348
(b)	40 Year Amortization	14.799	134,417,651
9.	Total Expense for Year Beginning 9/1/83:*		
(a)	Normal Cost and Interest	22.968%	\$ 208,615,428
(b)	Normal Cost and 40 Year Amortization	23.826	216,409,731

* Notes:

1. The percentage figures are based on covered pay of \$908,284,507.
2. Percentage figures may not total due to rounding.
3. The contributions have been adjusted for monthly payments.
4. The 40 year amortization period is assumed to begin September 1, 1980.
5. Any "balance sheet accruals" prior to September 1, 1983 are ignored.
6. Police officers and firefighters contribute 9.5% of pay. All other employees contribute 8.0% of pay.
7. Prospective survivors benefits are included in the "members receiving" classification for deceased members.

FASB #35 - Value of Accrued Benefits

Financial Accounting Standards Board Statement No. 35 sets forth certain standards of financial accounting and reporting for the annual financial statements of a defined benefit pension plan (effective for plan years beginning after June 15, 1982). As of the valuation date, the specified information is as follows:

<u>Actuarial Present Value of Accumulated Plan Benefits</u>	<u>8/31/83</u>	<u>8/31/82</u>
Vested Benefits:		
Currently Receiving Payments	\$ 780,672,474	\$ 712,722,854
Other	1,486,005,974	1,342,189,059
Total	<u>\$2,266,678,448</u>	<u>\$2,054,911,913</u>
Non-Vested Benefits	410,849,134	391,291,996
Total	<u>\$2,677,527,582</u>	<u>\$2,446,203,909</u>
Non-retired Members' Contributions and Interest (the rate credited has varied), included above	\$ 804,106,387	\$ 718,669,827
Interest rate used to discount the above values: 8%		

The increase of \$231,323,673 in the actuarial present value of accumulated plan benefits is attributable largely to the accrual of an additional year's benefits and interest. The same methods and procedures were used to compute the current and prior year's values.

APPROPRIATION REQUIREMENTS FOR
FISCAL YEAR SEPTEMBER 1, 1983 - AUGUST 31, 1984

The law governing the System requires that the State shall make contributions to the System, which with employee contributions, investment income and other income of the System

...will be sufficient to meet the requirements of this Article in accordance with actuarial determinations. In no event shall the contributions of employers from State appropriations for any fiscal year be less than an amount which when added to contributions from other sources and investment income for that year is sufficient to meet (a) the total accruing normal costs plus interest at the prescribed rate on the unfunded accrued liabilities or (b) the accruing requirements necessary to retain qualified status under Section 401(a) of the United States Internal Revenue Code¹, or any similar provision as successor thereof.

(¹ 26 U.S.C.A. §401.)

The law defines normal cost as:

...the liability for pensions and other benefits which accrues to the system because of the credits earned for service rendered by the participants during the fiscal year and expenses of administering the system.

Section 401(a) of the Internal Revenue Code would require essentially the same contribution as required under (a) above. The cited Section does require a different minimum contribution for private plans. The "40 year amortization" amount shown corresponds to the minimum requirements for private plans upon passage of ERISA. It may also be deemed the minimum amount required as expense pursuant to Accounting Principles Board Opinion No. 8, although any "balance sheet accruals" prior to September 1, 1983 are ignored.

<u>Basis</u>	<u>Required Appropriation</u>
Normal Cost and Interest	\$ 208,615,428
Normal Cost and 40 Year Amortization	\$ 216,409,731

ACTUARIAL COST METHOD

An entry age normal cost method is used. Under this method, the projected pensions at retirement age are first determined and the values thereof at the individual member's entry age or hire age are determined. The values so determined are divided by the value at entry age of all future compensation payable to the member to determine the normal cost as a level percentage of covered pay. The normal cost for a particular year is that percentage of covered compensation for the year.

The actuarial liability at any point in time is the value of the projected pensions at that time, less the value of future normal costs.

For ancillary benefits for both active and inactive members, in particular disability benefits, death and survivor benefits, termination benefits and the post-retirement increments, the same procedure as outlined above is followed.

Estimated annual administrative expenses are added to the normal cost.

ACTUARIAL ASSUMPTIONS

Mortality: 1986 Projected Experience Table, a table based on experience underlying the 1971 Group Annuity Mortality Table, without margins, with a projection for mortality improvements to 1986, with a one year setback.

Interest: 8% per annum, compounded annually.

Termination: Illustrative rates of withdrawal from the plan are as follows:

<u>Age</u>	<u>Males</u>	<u>Females</u>
20	0.374	0.524
25	0.249	0.324
30	0.174	0.219
35	0.124	0.154
40	0.073	0.104
45	0.047	0.064
50	0.020	0.038
55	—	0.013

It is assumed that terminated employees will not be rehired.

Salary Increases: 8% per annum, compounded annually.

Disability Rates: Incidence of disability amongst employees.

<u>Age</u>	<u>Males</u>	<u>Females</u>
20	0.0018	0.0034
25	0.0018	0.0034
30	0.0018	0.0034
35	0.0018	0.0034
40	0.0034	0.0060
45	0.0058	0.0090
50	0.0091	0.0123
55	0.0140	0.0164
60	0.0234	0.0219

5% of disabilities amongst active employees are assumed to be caused by "on-the-job" accidents where a qualifying workers' compensation award is granted. During the first 2 years of service, one quarter of disabilities are assumed to arise as a result of an accident.

Employees receiving a disability allowance are assumed to recover or die in accordance with the following tables:

<u>Age</u>	<u>Rate of Recovery</u>	<u>Rate of Mortality</u>
20	0.256	0.044
25	0.156	0.044
30	0.096	0.044
35	0.056	0.044
40	0.016	0.044
50	—	0.045
60	—	0.053
70	—	0.075
80	—	0.130
90	—	0.240

- Retirement Rates: Retirement was assumed to occur at age 62.
- Assets: Assets available for benefits are used at book value.
- Expenses: As estimated and advised by SURS staff, based on current expenses with an allowance for expected increases.
- Marital Status: 85% of employees are assumed to be married.
- Spouse's Age: The female spouse is assumed to be 3 years younger than the male spouse.
- Remarriage Rates: The surviving spouse of deceased employees are assumed to remarry in accordance with the following table:

<u>Age</u>	<u>Rate of Remarriage</u>	<u>Age</u>	<u>Rate of Remarriage</u>
20	0.144	40	0.028
25	0.094	45	0.018
30	0.059	50	0.010
35	0.040	55	0.004

- Children: It is assumed that married members have 2.5 children one year apart in age.

The age of the youngest child of a deceased employee at his date of death is assumed to be as follows:

<u>Age At Death Of Employee</u>	<u>Age Of Youngest Child</u>
20	2 Years
25	3
30	4
35	5
40	6
45	8 Years
50	10
55	12
60	14

Effective Rate
of Interest:

The rate of interest credited on member contributions as in effect for the year beginning on the valuation date is assumed to remain in effect until retirement.

Earnings Data:

If earnings were not available, the annual salary was assumed to be \$20,000.

STATE UNIVERSITIES RETIREMENT SYSTEM
OF ILLINOIS

The following is a summary of the major provisions of the State Universities Retirement System as in effect on the date of the valuation (9/1/83).

Membership:

The System covers faculty and non-academic permanent employees of State Universities and Colleges, Community Colleges, State Scientific Surveys and other related agencies.

Employees hired after age 68, employed less than 50% full-time or employed less than full-time and attending classes with an employer are ineligible to participate.

Member Contributions:

8% of gross earnings. 6-1/2% of the 8% contributions are designated for retirement annuities, 1/2% for automatic annual increases and 1% for survivor benefits. Police officers and firefighters contribute 9-1/2% of earnings. The additional 1-1/2% is a normal retirement contribution.

Interest Credited on Member Contributions:

The interest rate credited is fixed by the Board and is currently 8%. For purposes of lump sum payments to former members, the interest rate is 4-1/2%.

Normal Retirement:

Members are eligible for normal retirement after 35 years of covered service, after 8 years of covered service and age 60, or after 5 years of covered service and age 62. Policemen and firemen are eligible for normal retirement at age 55 with 20 years of service, or at age 50 with 25 years of service.

The annuity payable is based on the largest of three formulas:

- (1) The following percentages of "average earnings", the highest earnings for any 4 consecutive years:

	<u>General</u>	<u>Police & Firemen</u>
(a) For each of the first 10 years of service	1.67%	2.25%
(b) For each of the next 10 years of service	1.90%	2.50%
(c) For each of the next 10 years of service	2.10%	2.75%
(d) For each year of service over 30	2.30%	2.75%

- (2) The actuarial equivalent of 2.4 times the accumulated member contributions for retirement annuities (6-1/2% of earnings for ordinary members, 8% of earnings for police officers and firefighters). The actuarial equivalent assumes a constant annuity payable for life.
- (3) For each year of service up to a maximum of 30 years, if employed one-half time or more, the following monthly amounts based on average earnings:

"Average Annual Earnings"

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

For members first participating hired after September 14, 1977, the maximum annuity under (1) or (2) is 75% of average earnings. The maximum is 80% of average earnings for members who participated on or before September 14, 1977.

Early Retirement:

Members are eligible for early retirement after 8 years of service and age 55 but the annuity calculated under formula (1) or (3) above is reduced by 1/2% for each month such retirement precedes age 60.

Early Retirement Without Discount:

A member may retire between the ages of 55 and 60 with at least 8, but not more than 35 years service credit, without 1/2 of 1% reduction, provided:

- (1) The member does so between September 8, 1981 and June 30, 1987.
- (2) The member retires within 6 months of the last day of employment.

Death Benefits After Retirement:

A lump sum benefit of \$1,000 is payable to the member's spouse, children or dependent parent. In addition, a survivor's annuity as outlined above is payable. If no survivor annuity is payable, a minimum death benefit of \$1,000 or an amount equal to the excess of the member's contributions and interest to retirement over the benefits paid is payable.

Automatic Increases:

Retirement benefits are increased annually after retirement by 3% of the original retirement annuity. Note that the increase is not compounded and does not apply to survivor's or disability benefits. The first automatic annual increase in retirement annuity is paid on the January 1st nearest the annuitant's 61st birthday or the January 1st nearest the first anniversary of retirement, whichever is later.

Termination of Service:

A lump sum refund of all member contributions and interest (at 4-1/2%) will be made. If a member has 5 years of covered service and does not apply for a refund, a normal retirement benefit will be payable at age 62.

STATE UNIVERSITIES RETIREMENT SYSTEM
OF ILLINOIS

ACTUARIAL VALUATION COMPLETED AS OF AUGUST 31, 1983

SUPPLEMENTAL REPORT

Chicago, Illinois
January 20, 1984

STATE UNIVERSITIES RETIREMENT SYSTEM
OF ILLINOIS

Introduction

In this report we present the basic results of the actuarial valuation and certain supplemental information which may be helpful to the Board members. The actuarial assumptions and methods used are the same as those used for the prior year so that the valuation results are directly comparable.

In total, the recommended contribution as a percentage of reported earnings increased from last year's level. The normal cost rate was slightly higher due primarily to increased expenses and the contribution towards the unfunded liability was higher because last year's contribution did not cover the interest accruing at our assumed rate. There was one benefit change - supplemental annuities were extended to a group that was not previously eligible. This increased the liability by about \$1.5 million. Having a greater impact however, were more favorable investment performance and smaller average salary increases than expected. These combined to produce an actuarial gain of about 2.2% of the actuarial liability. These gains however, did not make up the difference between the State's Contribution and the recommended contribution.

Summarized below are certain important results for both years.

	<u>August 31, 1982</u>	<u>August 31, 1983</u>
1. Number of Active Members	40,573	40,897
2. Reported Earnings (Average)	\$ 872,449,875 (21,503)	\$ 908,284,507 (22,209)
3. Number of Members Receiving Payments	10,697	11,711
4. Annual Benefit Payments (Average)	\$ 67,440,744 (6,305)	\$ 76,962,435 (6,572)
5. Assets:		
(a) Book Value	\$1,239,583,869	\$1,403,406,843
(b) Market Value	\$1,130,725,119	\$1,444,559,149
6. State Normal Cost (% Payroll)	8.712%	9.027%
7. Actuarial Liability (Funded Percentage)	\$2,801,029,136 (44.3%)	\$3,043,427,199 (46.1%)
8. Unfunded Actuarial Liability	\$1,561,445,267	\$1,640,020,356

The increase in the unfunded liability of \$78,575,089 was due to the following:

1. Contribution Being Less Than the Amount Necessary to Fund the Normal Cost and Interest on the Unfunded	\$144,297,650
2. Actuarial (Gains) Losses	
(a) (Gain) from investment return greater than 8%.	(\$ 27,419,193)
(b) (Gain) from salary increases less than 8%.	(\$ 35,878,907)
(c) (Gains) from other sources.	(\$ 2,424,461)
3. Total	\$ 78,575,089

Appropriation Requirements

The procedures set forth in the Act to determine the annual appropriations do not precisely define the required contribution for a particular fiscal year. For example, if the "normal cost" was defined as a percentage of actual pay, the State's contribution would not be known until the end of the fiscal year when the actual covered pay was known. On the other hand, if the normal cost was defined as a dollar amount based on annualized earnings as of the valuation date, the normal cost would be known upon completion of the valuation. (This procedure is the most common amongst plans and we recommend that it be adopted.) Following this procedure, the expense requirement would be as indicated, including a 40 year amortization of the unfunded actuarial liability from 9/1/80.

For the fiscal year 9/1/83 - 8/31/84	\$216,409,731
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For the fiscal year beginning September 1, 1984, the appropriation requirement has been estimated as follows:

- | | |
|---|---------------|
| (1) If covered compensation increases 8% | \$247,200,000 |
| (2) If covered compensation increases 10% | \$252,900,000 |

Value of Accrued Benefits - FASB #35

Financial Accounting Standards Board Statement No. 35, which is effective for plan years beginning after June 15, 1982, establishes standards of financial accounting and reporting for the financial statements of defined benefit pension plans, including those of state and local governmental units. It does not, however, require the preparation of financial statements.

This statement requires the disclosure of certain actuarial information; namely, the actuarial present value of accumulated benefits and changes thereof from the prior year. This information differs from the actuarial reserves calculated for funding purposes in that it does not consider future pay increases or service in calculating benefits. (In other words, accumulated benefits are calculated based on each member's pay history and service up to the valuation date.)

This information is summarized below as of August 31, 1983, computed on the basis described above and using the same assumptions (other than the pay increase assumption) as for funding purposes. The prior year's results are also shown:

	<u>Actuarial Present Value of Accumulated Benefits</u>	<u>8/31/82</u>	<u>8/31/83</u>
(a)	Vested Benefits of Members Currently Receiving Payments	\$ 712,722,854	\$ 780,672,474
(b)	Other Vested Benefits	\$1,342,189,059	\$1,463,364,199
(c)	Non-Vested Benefits	<u>\$ 391,291,996</u>	<u>\$ 432,023,798</u>
(d)	Total	\$2,446,203,909	\$2,676,060,471

Accumulated active members' contributions and interest amounted to \$749,668,156.

Compared to the assets valued on the same basis as for funding purposes, the accumulated benefits are 52.4% funded, compared with 50.7% last year. The statement requires that market value of assets should be used in the comparison, which would produce a funded percentage of 54.0%. The statement also permits the use of a current interest rate in determining the actuarial present value of benefits (rather than the average long-term assumption used for funding).

Funded Status
An Alternate View

The Board has gauged the funded status of the System by examining the ratio of assets to the actuarial liability. FASB #35 requires an alternate approach. The following outlines a third alternative that may be useful to the Board in assessing the financial status of the System at September 1, 1983.

1.	Assets	\$1,403,406,843
2.	Value of benefits for members and survivors receiving payments	780,672,474
3.	Assets available for non-retired members: (1) - (2)	622,734,369
4.	Value of benefits for terminated members	139,751,512
5.	Assets available for active members: (3) - (4)	482,982,857
6.	Value of accrued benefits for active employees	1,757,103,596
7.	Accumulated contributions and interest for non-retired employees	804,106,387

In other words, the funds available for active members, \$483 million, amount to only 60.1% of active members contributions (and interest) and only 27.5% of the value of accrued benefits for active employees.

The remainder of the report is comprised of the following:

Table 1 - Results of Actuarial Valuation

Table 2 - Value of Accumulated Benefits (FASB #35)

Table 3 - Fifteen Year Projection

Respectfully submitted,

THE WYATT COMPANY

By

Lloyd L. Nordstrom
Fellow of The Society of Actuaries

By

Robert L. Barnes
Fellow of The Society of Actuaries

Chicago, Illinois
January 20, 1984

STATE UNIVERSITIES RETIREMENT SYSTEM
OF ILLINOIS

RESULTS OF ACTUARIAL VALAUTION AS OF AUGUST 31, 1983

MEMBER DATA

1.	Number of Members:	
(a)	Active	40,897
(b)	Members Receiving Annuities:	
(i)	Retirement	8,432
(ii)	Survivor (includes prospective widows and widowers)	2,380
(iii)	Disability	899
(c)	Other Inactive Members	4,855
(d)	Total	<u>57,463</u>
2.	Annual Reported Earnings	\$ 908,284,507
3.	Annual Annuity Payments Currently Being Made:	
(a)	Retirement	\$ 63,051,942
(b)	Survivor	7,306,857
(c)	Disability	6,603,636
(d)	Total	<u>\$ 76,962,435</u>

VALUATION RESULTS

4.	Actuarial Liability for Members Receiving Annuities:	
(a)	Retirement	\$ 663,476,826
(b)	Survivors	62,273,916
(c)	Disability	54,921,732
(d)	Total	<u>\$ 780,672,474</u>
5.	Actuarial Liability for Inactive Members	\$ 139,751,512

	<u>Normal Cost</u>	<u>Actuarial Liability</u>
6.	Active Members:	
(a)	Pension Benefits	\$1,392,168,672
(b)	Cost-of-Living Adjustments	284,719,454
(c)	Death Benefits (excludes refunds)	199,477,957
(d)	Disability:	
(i)	Accidental	8,534,948
(ii)	Ordinary	183,993,299
(iii)	Total	192,528,247
(e)	Withdrawals and Refunds	54,108,883
(f)	Expenses	—
(g)	Total Actives	<u>\$2,123,003,213</u>

Table 1
Cont'd

	<u>Normal Cost</u>	<u>Actuarial Liability</u>
7. Totals	\$153,857,410	\$3,043,427,199
8. Assets		\$1,403,406,843
9. Unfunded Actuarial Liability		\$1,640,020,356
10. Expected Employee Contributions	\$ 71,865,330	
11. Annual Normal Cost To Be Provided by the State	\$ 81,992,080	

ANNUAL EXPENSE*

	<u>Percent Of Pay</u>	<u>Amount</u>
12. "Forty Year Amortization":		
(a) Normal Cost	9.027%	\$ 81,992,080
(b) Contribution Towards Unfunded	14.799	134,417,651
(c) Total	<u>23.826%</u>	<u>\$ 216,409,731</u>
13. "Interest Only Funding":		
(a) Normal Cost	9.027%	\$ 81,992,080
(b) Interest on Unfunded	13.941	126,623,348
(c) Total	<u>22.968%</u>	<u>\$ 208,615,428</u>

* All figures have been adjusted by the appropriate interest factor for monthly contributions.

Table 2

STATE UNIVERSITIES RETIREMENT SYSTEM
OF ILLINOIS

ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS
AT AUGUST 31, 1983
(FASB #35)

	<u>Vested</u>	<u>Non-Vested</u>	<u>Total</u>
1. Participants Currently Receiving Payments	\$ 780,672,474	—	\$ 780,672,474
2. Inactive Members	\$ 139,751,512	—	\$ 139,751,512
3. Active Members:			
(a) Pension Benefits	\$ 908,270,319	\$ 29,214,662	\$ 937,484,981
(b) Cost-of-Living Adjustments	184,404,754	6,075,357	190,480,111
(c) Death Benefits (excludes refunds)	—	169,814,618	169,814,618
(d) Disability:			
(i) Accidental	—	10,983,121	10,983,121
(ii) Ordinary	—	193,422,485	193,422,485
(iii) Total	—	\$204,405,606	\$ 204,405,606
(e) Withdrawals and Refunds	230,937,614	22,513,555	253,451,169
(f) Total Actives	<u>\$1,323,612,687</u>	<u>\$432,023,798</u>	<u>\$1,755,636,485</u>
4. Grand Total	\$2,244,036,673	\$432,023,798	\$2,676,060,471
5. Non-retired Member Contributions and Interest (included in above):			
(a) Active			\$ 749,668,156
(b) Inactive			54,438,231
(c) Total			<u>\$ 804,106,387</u>

STATE UNIVERSITIES RETIREMENT SYSTEM OF ILLINOIS

FIFTEEN YEAR PROJECTION OF COSTS AND LIABILITIES
(Assuming State Contributions Continue On Current Basis)
(All Dollar Amounts In Billions)

	Fiscal Year Ending 8/31							
	1984	1985	1986	1987	1988	1989	1994	1999
BASIC DATA								
1. Number of Active Members	40,897	40,897	40,897	40,897	40,897	40,897	40,897	40,897
2. Annual Compensation	\$0.908	\$0.981	\$1.059	\$1.144	\$1.236	\$1.335	\$1.961	\$2.881
3. Annual Benefit Payments & Administrative Expenses*	0.093	0.107	0.121	0.134	0.150	0.168	0.275	0.411
VALUATION RESULTS								
4. Actuarial Liability (Retired Life Reserves)	\$3.043 (0.781)	\$3.346 (0.860)	\$3.659 (0.951)	\$3.998 (1.059)	\$4.340 (1.187)	\$4.736 (1.310)	\$7.251 (2.158)	\$11.004 (3.243)
5. Assets (Book)	1.403	1.556	1.761	1.989	2.242	2.523	4.454	7.641
6. Unfunded Actuarial Liability (Funded Percentage)	1.640 (46.1%)	1.790 (46.5%)	1.898 (48.1%)	2.009 (49.7%)	2.098 (51.7%)	2.213 (53.3%)	2.798 (61.4%)	3.363 (69.4%)
7. Annual Normal Cost:								
(a) Total	\$0.154	\$0.166	\$0.179	\$0.194	\$0.209	\$0.226	\$0.332	\$0.488
(b) Less Employee Contributions	0.072	0.078	0.084	0.091	0.098	0.106	0.155	0.228
(c) Balance (% Payroll)	0.082 (9.0%)	0.089 (9.0%)	0.096 (9.0%)	0.103 (9.0%)	0.112 (9.0%)	0.120 (9.0%)	0.177 (9.0%)	0.260 (9.0%)
8. State Contribution (% Payroll)	\$0.060 (6.6%)	\$0.107 (10.9%)	\$0.121 (11.4%)	\$0.134 (11.7%)	\$0.150 (12.1%)	\$0.168 (12.6%)	\$0.275 (14.0%)	\$0.411 (14.3%)
FASB #35								
9. Value of Accrued Benefits (Funded Percentage)	\$2.678 (52.4%)	\$2.944 (52.8%)	\$3.223 (54.6%)	\$3.526 (56.4%)	\$3.832 (58.5%)	\$4.188 (60.2%)	\$6.449 (69.1%)	\$9.789 (78.1%)

* Expenses estimated at \$4.9 million for fiscal year ended 8/31/84; increasing by 10% per annum thereafter.