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February 28, 2000

Retirement Board
California State Teachers' Retirement System

RE: CASH BALANCE BENEFIT PROGRAM
ACTUARIAL VALUATION AS OF JUNE 30, 1999

Dear Members of the Board:

At your request, we have performed an actuarial valuation of the Cash Balance Benefit (CBB) Program of the State Teachers' Retirement Plan as of June 30, 1999. Details about the actuarial valuation are contained in the following report.

I certify that the information included in this report is complete and accurate to the best of my knowledge and belief. All calculations have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the applicable Standards of Practice adopted by the American Academy of Actuaries.

Milliman & Robertson has been engaged by CalSTRS as an independent actuary. The undersigned is a Fellow of the Society of Actuaries, a Member of the American Academy of Actuaries, and an Enrolled Actuary, and is experienced in performing actuarial valuations for large public employee retirement systems.

Respectfully submitted,

Mark O. Johnson, F.S.A.
Consulting Actuary

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SECTION 1
EXECUTIVE SUMMARY

MEMBERSHIP

The number of Participants in the Cash Balance Benefit (CBB) Program continues to steadily increase. The following chart shows the number of Participants and their Account Balances for the first three years of the Program.

Valuation Date	Participants	Account Balances
June 30, 1997	495	$ 164,078
June 30, 1998	3,505	1,727,705
June 30, 1999	6,412	5,000,613

EFFECT OF MERGER

The merger of the Defined Benefit (DB) Plan and the Cash Balance (CB) Plan into a single plan with a separate DB Program and a CBB Program was effective on January 1, 1999. As of the merger date, the administrative expenses of the CBB Program are combined with the administrative expenses of the DB Program and allocated based on the invested assets of each Program. Therefore, since January 1, 1999, the administrative expenses of the CBB Program have been charged by an allocation of approximately 0.05% of the invested assets.

Prior to January 1, 1999, the CB Plan was charged for direct administrative expenses and during the period July 1, 1998 through December 31, 1998, the CB Plan was also charged for certain overhead expenses. The loan from the DB Plan was not sufficient to cover all of the administrative expenses charged prior to January 1, 1999. The excess of the administrative expenses over $1 million created an actuarial loss for the 1998-99 plan year.

($Thousands)	June 30, 1999	June 30, 1998	June 30, 1997
Actuarial Obligation	$ 5,001	$ 1,728	$ 164
Actuarial Value of Assets	5,224	790	(393)
Unfunded Actuarial Obligation or (Actuarial Surplus)	$ (223)	$ 938	$ 557
Asset Adjustment due to Merger		1,293	

After Adjustment for Merger	$ (223)	$ (355)	$ 557

GAIN AND LOSS RESERVE / ADDITIONAL EARNINGS CREDIT

The following chart shows the history of the Gain and Loss Reserve.

($Thousands)	June 30, 1999	June 30, 1998	June 30, 1997
Gain and Loss Reserve			
Beginning of Year	$ 346	$ (557)	$ 0
Adjustment for Plan Merger	0	1,293	0
Additional Earnings Credit	*	(9)	0
Allocated to Funding	*	(381)	(557)
End of Year Gain and Loss Reserve	$ 346	$ 346	$ (557)
Unallocated Gains and (Losses)	$ (123)	0	0

* To be determined by the Teachers' Retirement Board after acceptance of the actuarial valuation.

In a separate document, the Board will be provided information to decide how to distribute the Unallocated Gains and Losses. If no Additional Earnings Credit is adopted, the entire amount would be distributed to the Gain and Loss Reserve, leaving an ending balance of $223,000.

SECTION 2
FINDINGS OF THE ACTUARIAL VALUATION

An actuarial valuation is performed as of June 30 of each year, the last day of the Program's plan year. The primary purpose of the valuation is to determine the financial condition of the CBB Program through the measurement of the Gain and Loss Reserve. We also describe recent changes in the Program's financial condition and provide certain disclosure information in accordance with the Governmental Accounting Standards Board Statement No. 25.

The findings have been determined according to actuarial assumptions which were adopted on the basis of recent experience and current expectations of future experience. In our opinion, the assumptions used in the valuation are reasonably related to the past experience of the CBB Program and represent our best estimate of future conditions affecting the Program. Nevertheless, the emerging costs of the System will vary from those presented in this report to the extent that actual experience differs from that projected by the actuarial assumptions.

MEMBERSHIP DATA

The CBB Program was established on July 1, 1996 (as the CB Plan). The number of active Participants has steadily increased in the first few plan years, as shown in the following chart.

Valuation Date	Participants	Account Balances
June 30, 1997	495	$ 164,078
June 30, 1998	3,505	1,727,705
June 30, 1999	6,412	5,000,613

SOURCES OF REVENUE

Generally, Participants and Employers each contribute 4% of salary. These rates may differ pursuant to a collectively bargaining agreement, but will never total less than 8% of salary.

ACTUARIAL VALUE OF ASSETS

The actuarial value of assets for this valuation is the Fair Market Value as reported by CalSTRS. Effective January 1, 1999, the financial statements of the DB Program and the CBB Program were merged. A Statement of Program Assets for all three plan years is shown in Table 1, and the Statement of Change in Program Assets is shown in Table 2 and summarized in the chart below.

($Thousands)	Year Ended June 30, 1999	Year Ended June 30, 1998	Year Ended June 30, 1997
Additions			
Contributions	$ 3,082	$ 1,544	$ 148
Earnings	380	105	20
Discharged Loan	1,417	0	0
Total Additions	$ 4,879	$ 1,649	$ 168
Deductions			
Benefits	$ 15	$ 0	$ 0
Expenses	430	466	428
Total Deductions	$ 445	$ 466	$ 428
Net Increase (Decrease)	$ 4,434	$ 1,183	$ (260)
Net Assets (Deficit)			
Beginning of Year	$ 790	$ (393)	$ (133)
End of Year	$ 5,224	$ 790	$ (393)

The CB Plan borrowed $1 million from the DB Plan to fund start-up expenses. At the date of the financial merger of the CB Plan with the DB Plan, this loan, including accumulated interest, was discharged. The amount of the write-off, including accrued interest, was $1.417 million.

As of the merger date, the administrative expenses of the CBB Program are combined with the administrative expenses of the DB Program and allocated based on the invested assets of each Program. Therefore, since January 1, 1999, the administrative expenses of the CBB Program have been charged by an allocation of approximately 0.05% of the invested assets.

Prior to January 1, 1999, the CB Plan was charged for direct administrative expenses. During the period July 1, 1998 through December 31, 1998, the CB Plan was also charged for certain overhead expenses.

The loan from the DB Plan was not sufficient to cover all of the administrative expenses charged prior to January 1, 1999. The excess of the administrative expenses over $1 million created an actuarial loss for the 1998-99 plan year.

ACTUARIAL BALANCE SHEET

Under the Traditional Unit Credit Actuarial Cost Method, when the assumed investment return is equal to the assumed interest crediting rate, the Actuarial Obligation is equivalent to the current sum of the Participants' Account Balances. Table 3 shows the Actuarial Obligation for this and the prior two valuations.

The excess of the Actuarial Obligation over the Actuarial Value of Assets is called the Unfunded Actuarial Obligation. If the Assets exceed the Actuarial Obligation, the difference is called the Actuarial Surplus.

Under normal conditions, the CBB Program should always have an Actuarial Surplus. In the first two years of operation, the CB Plan had an Unfunded Actuarial Obligation because the administrative start-up costs far exceeded the investment return. With the merger of the CB Plan with the DB Plan, specifically with the sharing of administrative expenses in proportion to invested assets, the future expenses allocated to the CBB Program should be about 0.05% of assets each year (see Section 3 of the 1999 Actuarial Experience Analysis). Therefore, to retain the Actuarial Surplus, the investment returns over a long period of time must exceed the Minimum Interest Credit. We expect this to be the case.

GAIN AND LOSS RESERVE

Table 5 shows the derivation of the Gain and Loss Reserve. After each actuarial valuation, the Teachers' Retirement Board decides on the adjustment to the prior year's Gain and Loss Reserve and the Additional Earnings Credit, if any.

- The 1997 actuarial valuation determined the CB Plan had an Unfunded Actuarial Obligation of $557,000. The Board did not adopt an Additional Earnings Credit after the 1997 valuation, so the Gain and Loss Reserve stood at $(557,000).

- The 1998 actuarial valuation determined that the CB Plan had an Unfunded Actuarial Obligation of $938,000. However, the Unfunded Actuarial Obligation was reduced by $1,293,000 as of June 30, 1998, to reflect the value of the loan from the DB Plan which would be discharged due to the merger on January 1, 1999. Therefore, with an adjustment to reflect the merger, the CBB Program had an Actuarial Surplus of $355,000.

- After the 1998 actuarial valuation was adopted, the Board allocated $8,916 as Additional Earnings Credit, with the remainder of the Surplus remaining in the Gain and Loss Reserve.

- The 1999 actuarial valuation determined the Actuarial Surplus to be $223,000 as of June 30, 1999. Therefore, with a Gain and Loss Reserve of $346,000 there is an unallocated actuarial loss for the year of $123,000. One reason for the apparent change in the funding status of the CBB Program is how expenses were charged to the CB Plan. The level of expenses in the CB Plan during 1998-99 reflects a method of allocating administrative expenses that will no longer be applied. As a result, a principal cause of the 1998-99 actuarial loss will not occur in the future.

  After the adoption of the 1999 actuarial valuation, the Board will decide how to allocate this actuarial loss. If all of it is allocated to the Gain and Loss Reserve, with no Additional Earnings Credit, the end of the year Gain and Loss Reserve will be equal to $223,000. The Board may decide it is appropriate to allocate some of the Gain and Loss Reserve to an Additional Earnings Credit for 1998-99.

ACCOUNTING DISCLOSURES

The Governmental Accounting Standards Board (GASB) has issued Statement No. 25 which describes the information to be disclosed in the System's financial reports. The required actuarial disclosures are shown in Tables 5, 6, and 7.

TABLE 1

STATEMENT OF PROGRAM ASSETS

($Thousands)	June 30, 1999	June 30, 1998	June 30, 1997
Invested Assets			
Short-term	$ 0	$ 368	$ 620
Pooled Domestic Securities	1,818	608	59
Pooled Domestic Equity	2,939	1,000	97
Total Investments	$ 4,757	$ 1,976	$ 776
Receivables	144	123	5
Liabilities	(1)	(1,309)	(1,175)
Expense Adjustment (1)	324	0	0
Fair Market Value of Net Assets	$ 5,224	$ 790	$ (393)

Notes:
(1) Reduction in expenses previously reported for the 1998-99 plan year

TABLE 2

STATEMENT OF CHANGE IN PROGRAM ASSETS

($Thousands)	Year Ended June 30, 1999	Year Ended June 30, 1998	Year Ended June 30, 1997
Additions			
Contributions			
Participants	$ 1,520	$ 772	$ 74
Employers	1,562	772	74
Total Contributions	3,082	1,544	148
Net Appreciation	374	77	0
Interest, dividends and other income	6	28	20
Loan write-off from DB Program	1,417	0	0
Total Additions	$ 4,879	$ 1,649	$ 168
Deductions			
Benefit Payments			
Retirement, death, and survivor	$ 0	$ 0	$ 0
Refunds of Participant contributions	15	0	0
Total Benefits	15	0	0
Expenses			
Administrative	388	397	393
Interest Expense	42	69	35
Total Expenses	430	466	428
Total Deductions	$ 445	$ 466	$ 428
Net Increase (Decrease)	$ 4,434	$ 1,183	$ (260)
Net Assets (Deficit)			
Beginning of the Year	$ 790	$ (393)	$ (133)
End of the Year	$ 5,224	$ 790	$ (393)

TABLE 3

ACTUARIAL BALANCE SHEET

($Thousands)	June 30, 1999	June 30, 1998	June 30, 1997
Total Requirements			
Actuarial Obligation			
Retirees and Beneficiaries	$ 0	$ 0	$ 0
Inactive Participants	0	0	0
Active Participants	5,001	1,728	164
Total Requirements	$ 5,001	$ 1,728	$ 164
Total Resources			
Actuarial Value of Assets	$ 5,224	790	(393)
Unfunded Actuarial Obligation (Surplus)	(223)	938	557
Total Resources	$ 5,001	$ 1,728	$ 164

TABLE 4

GAIN AND LOSS RESERVE

($Thousands)	June 30, 1999	June 30, 1998	June 30, 1997
Unfunded Actuarial Obligation			
Before Adjustment for Plan Merger		$ 938	$ 557
Adjustment for Plan Merger [1]		(1,293)	
After Adjustment for Plan Merger	$ (223)	$ (355)	
Gain and loss Reserve			
Beginning of Year	$ 346	$ (557)	$ 0
Adjustment for Plan Merger [1]	0	1,293	0
Additional Earnings Credit	[3]	(9) [2]	0
Allocated to Funding	[3]	(381)	(557)
End of Year Gain and Loss Reserve	$ 346	$ 346	$ (557)
Unallocated Gains and (Losses)	$ (123)	0	0

Notes:

[1] Per Watson Wyatt Worldwide Actuarial Valuation as of June 30, 1998.

[2] Per Watson Wyatt Worldwide dated February 17, 1999.

[3] To be determined by the Teachers' Retirement Board after the adoption of this Actuarial Valuation.

TABLE 5

HISTORY OF CASH FLOW

($Thousands)		Expenditures During the Year					Market Value of
Year End	Contributions for the Year	Benefit Payments	Contribution Refunds	Expenses	Total	External Cash Flow	Net Assets
1997	$ 148	$ 0	$ 0	$ 428	$ 428	$ (280)	$ (393)
1998	1,544	0	0	466	466	1,078	790
1999	3,082	0	15	430	445	2,637 [1]	5,224

[1] Excludes write-off of loan from the DB Plan of $1,417,000 as of January 1, 1999.

TABLE 6

SCHEDULE OF FUNDING PROGRESS

($Thousands)

Year End	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio Assets/AAL	Estimated Covered Payroll	Coverage Ratio AAL/Pay
1997	$ (393)	$ 164	$ 557	(240)%	$ 4,504	12%
1998	790	1,728	938	46%	18,838	5%
1999	5,224	5,001	(223)	104%	50,426	10%

TABLE 7

SCHEDULE OF EMPLOYER CONTRIBUTIONS

($Thousands)

Year End	Annual Required Contribution	Contributed by Employers	Contributed by the State	Total Contributed	Percentage Contributed
1997	$ 74	$ 74	$ 0	$ 74	100%
1998	772	772	0	772	100%
1999	1,562	1,562	0	1,562	100%

SECTION 3
OUTLINE OF THE PROVISIONS OF GOVERNING LAW

All of the actuarial calculations contained in this report are based upon our understanding of the Cash Balance Benefit (CBB) Program of the State Teachers' Retirement Plan as contained in Part 14 of the California Education Code. The provisions used in this valuation are summarized below for reference purposes.

MEMBERSHIP

Eligibility Requirement:	Membership if employed at less than 50% of a full-time position for a California school district, community college district, or county office of education which has elected to offer the CBB Program.
Participant:	An eligible employee with creditable service subject to coverage, who has contributions credited in the Program or is receiving an annuity from the Program.

ACCOUNT BALANCE

Account Balance:	Nominal accounts established for the purpose of determining benefits payable to the Participant. Accounts are credited with Contributions, Minimum Interest Rate, and Additional Earnings Credits.
Contributions:	Generally, Participant Contributions are 4% of salary, and Employer Contributions are 4% of salary. Rules for Contribution rates may differ for Participants covered by a collective bargaining agreement, but the sum of the Participant and Employer contributions must equal or exceed 8% of salary, and in no event can the Employer contribution rate be less than 4% of salary. The Retirement Board may adjust Employer Contributions for a fixed number of years, but the adjustment shall not exceed 0.25% of salaries in any plan year.

Minimum Interest Rate:	Annual rate determined for the plan year by the Retirement Board in accordance with federal laws and regulations. The Minimum Interest Rate is equal to the average of the yields on 30-year Treasuries for the twelve months ending in February preceding the beginning of the plan year, rounded to the next highest 0.25%.
Additional Earnings Credit:	Annual rate determined for the plan year by the Retirement Board based on the actual earnings during the plan year, but only to the extent the earnings are sufficient to credit the Minimum Interest Rate and provide any additions to the Gain and Loss Reserve deemed warranted by the Board.

NORMAL RETIREMENT

Eligibility Requirement:	Age 60.
Benefit:	The Account Balance at the retirement date subject to limits imposed under Internal Revenue Code (IRC) Section 415.
Form of Payment:	The normal form of payment is a lump sum distribution. Annuity options are available if the sum of the employer and employee accounts equal or exceed $3,500.

EARLY RETIREMENT

Eligibility Requirement:	Age 55.
Benefit and Form:	Same as Normal Retirement.

LATE RETIREMENT

Benefit and Form:	Same as Normal Retirement.
	Contributions and earnings continue to be credited to the Account Balances.

DEFERRED RETIREMENT

Benefit:	A Participant may cease active service, leave the accumulated Account Balance on deposit, and later retire upon attaining the minimum age requirement.

DISABILITY BENEFIT

Eligibility Requirement:	Determination by the Retirement Board that the Participant has a total and permanent disability.
Benefit:	The Account Balance at the date of disability. An annuity benefit is discontinued if the Participant is re-employed before age 60, and performs service creditable under the Program.
Form of Payment:	Same as Normal Retirement.

DEATH BEFORE RETIREMENT

Eligibility Requirement:	Deceased Participant has an Account Balance.
Benefit:	The Account Balance at the date of death payable to the designated beneficiary.
Form of Payment:	Same as Normal Retirement.

DEATH AFTER RETIREMENT

Eligibility Requirement:	The deceased Participant was receiving an annuity.
Benefit:	According to the terms of the annuity elected by the Participant.

TERMINATION FROM THE PROGRAM

Eligibility Requirement:	More than five years has elapsed since the most recent termination benefit, if any, has been paid.
Benefit:	Lump sum distribution of the Account Balance as of the date of distribution. The benefit is payable one year from the termination of credited service.

SECTION 4
ACTUARIAL METHODS AND ASSUMPTIONS

This section of the report describes the actuarial methods and assumptions used in this valuation. These procedures and assumptions have been chosen by the Teachers' Retirement Board based on our recommendations. The Board has the sole authority to select the methods and assumptions used in this actuarial valuation.

In our opinion, the current actuarial methods and actuarial assumptions are reasonable and appropriate for the CBB Program. The economic assumptions have been developed in accordance with the Actuarial Standard of Practice No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*. Furthermore, because the CBB Program is relatively new and significant data was not available to develop demographic assumptions, the demographic assumptions adopted for this program were developed from the experience of the DB Program.

The assumptions are intended to estimate the future experience of the Participants of the CBB Program and of the System itself in areas which affect the projected benefit flow and anticipated investment earnings. Any variations in future experience from that expected from these assumptions will result in corresponding changes in estimated costs of the Program's benefits.

The demographic assumptions are illustrated at selected ages and duration combinations in Tables 9 through 13.

TABLE 8

OUTLINE OF METHODS AND ASSUMPTIONS

I. Actuarial Methods

A.	Cost Method	Traditional Unit Credit
B.	Asset Valuation Method	Fair Market Value

II. Economic Assumptions

A.	Investment Return (net of investment and administrative expenses)	8.00%
B.	Interest on Participant Accounts	8.00%
C.	Wage Growth	4.25%

III. Demographic Assumptions

A.	Mortality			
	(1) Active	- Male	1999 CalSTRS Retired – M (-2 years)	Table 9
		- Female	1999 CalSTRS Retired – F (-2 years)	Table 9
	(2) Retired	- Male	1999 CalSTRS Retired – M	Table 9
		- Female	1999 CalSTRS Retired – F	Table 9
	(3) Beneficiary	- Male	1999 CalSTRS Beneficiary – M	Table 9
		- Female	1999 CalSTRS Beneficiary – F	Table 9
	(4) Disabled	- Male	1994 GAM-M (minimum 2.5% with select rates in first three years)	Table 9
		- Female	1994 GAM-F (minimum 2.2% with select rates in first three years)	Table 9
B.	Service Retirement		Experience Tables	Table 10
C.	Disability Retirement		Experience Tables	Table 11
D.	Withdrawal		Experience Tables	Table 12
E.	Merit Salary Increases		Experience Tables	Table 13

TABLE 9

MORTALITY RATES

	Active Participants	
Age	**Male**	**Female**
25	0.051%	0.029%
30	0.066	0.029
35	0.080	0.037
40	0.085	0.051
45	0.107	0.077
50	0.158	0.103
55	0.258	0.157
60	0.443	0.256
65	0.798	0.509

	Retired Participants		Beneficiaries		Disabled (After Year 3)	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
50	0.190%	0.121%	0.233%	0.258%	2.500%	2.200%
55	0.321	0.191	0.398	0.191	2.500	2.200
60	0.558	0.336	0.709	0.336	2.500	2.200
65	1.015	0.668	1.294	0.668	2.500	2.200
70	1.803	1.176	2.173	1.176	2.500	2.200
75	2.848	1.834	3.405	1.834	3.721	2.269
80	5.021	3.778	5.586	3.778	6.203	3.940
85	9.419	6.503	8.961	6.503	9.724	6.774
90	14.754	11.627	14.754	11.627	15.293	11.627
95	23.361	18.621	23.361	18.621	23.361	18.621
			Select rates for disability:			
			First year of disablement		11.4%	6.0%
			Second year of disablement		7.7	3.8
			Third year of disablement		6.2	3.0

TABLE 10

SERVICE RETIREMENT

Age	Male	Female
54	1.5%	1.5%
55	5.0	6.0
56	3.5	4.0
57	4.0	4.0
58	6.0	6.0
59	15.0	9.0
60	20.0	12.0
61	14.0	13.0
62	14.0	17.0
63	25.0	25.0
64	25.0	25.0
65	20.0	19.0
66	16.0	16.0
67	16.0	16.0
68	16.0	16.0
69	16.0	16.0
70	100.0	100.0

TABLE 11

DISABILITY RETIREMENT

	Entry Ages - Male			Entry Ages - Female		
Age	Under 40	40 - 44	45 and Up	Under 40	40 - 44	45 and Up
25	0.007%			0.010%		
30	0.010			0.010		
35	0.017			0.017		
40	0.040			0.030		
45	0.050	0.065%		0.047	0.077%	
50	0.065	0.096	0.096%	0.077	0.120	0.120%
55	0.090	0.130	0.130	0.106	0.153	0.153
60	0.110	0.176	0.176	0.130	0.196	0.196
65	0.127	0.284	0.284	0.153	0.305	0.305

TABLE 12

WITHDRAWAL

	Entry Ages - Male				
Year	**Under 25**	**25 - 29**	**30 - 34**	**35 - 39**	**40 and Up**
1	12.5%	12.5%	12.5%	12.5%	12.5%
2	9.5	9.5	9.2	9.2	9.5
3	7.7	6.8	6.8	6.8	7.2
4	5.8	5.8	5.8	5.8	6.2
5	5.0	4.2	4.2	4.2	4.2
10	2.0	2.0	2.0	2.0	2.4
15	1.1	1.1	1.1	1.2	
20	0.6	0.6	0.6		
25	0.5	0.5			
30	0.3				
35	0.3				
40	0.3				

	Entry Ages - Female				
Year	**Under 25**	**25 - 29**	**30 - 34**	**35 - 39**	**40 and Up**
1	10.0%	10.0%	10.0%	10.0%	10.0%
2	8.3	8.3	8.3	7.5	6.8
3	7.7	7.3	6.5	5.5	5.3
4	7.1	7.1	5.6	4.5	4.0
5	5.5	5.8	4.2	3.5	3.0
10	2.3	2.0	1.7	1.4	1.6
15	1.1	0.9	1.0	0.9	
20	0.6	0.7	0.9		
25	0.6	0.6			
30	0.3				
35	0.3				
40	0.3				

TABLE 13

MERIT SALARY INCREASES

	Entry Age - Annual Increase in Salaries Due to Merit					
Yr.	**Under 25**	**25 - 29**	**30 - 34**	**35 - 39**	**40 - 44**	**45 & up**
1	6.1%	5.8%	5.5%	5.4%	5.4%	4.0%
2	5.6	5.1	4.9	4.7	4.7	3.3
3	5.5	5.0	4.7	4.6	4.6	3.0
4	5.5	4.8	4.6	4.4	4.4	2.9
5	5.5	4.8	4.5	3.8	3.8	2.6
10	3.2	3.0	2.7	2.3	2.2	1.6
15	1.5	1.5	1.4	1.1	1.1	0.8
20	1.2	1.1	1.1	0.7	0.7	0.5
25	1.1	1.0	0.9	0.5	0.6	
30	0.9	0.7	0.6	0.4		
35	0.7	0.7	0.5			
40	0.8	0.7				
45	0.8					

SECTION 5
VALUATION DATA

The membership data for this actuarial valuation was supplied by CalSTRS and accepted without audit. We have examined the data for reasonableness and consistency with prior valuations and periodic reports from the CalSTRS staff to the Teachers' Retirement Board.

We believe the membership data to be sufficient for the purposes of this valuation.

Tables 14 and 15 summarize the census data used in this valuation.

TABLE 14

SUMMARY OF STATISTICAL INFORMATION

	June 30, 1999	June 30, 1998	June 30, 1997
Number of Participants			
Participants with Accounts	6,412	3,505	495
Retirees and Beneficiaries	0	0	0
Participant Statistics			
Annualized Salaries	$50,426 million	$18.832 million	$2,109 million
Average Salary	$ 7,864	$ 5,375	$ 4,261
Average Age	45.8 years	46.2 years	53.2 years
Average Service	0.5 years	0.6 years	0.5 years
Accumulated Account Balances			
Participant Contributions	$ 2,473,015	$ 855,423	$ 82,039
Employer Contributions	2,527,598	872,282	82,039
	$ 5,000,613	$ 1,727,705	$ 164,078

TABLE 15

DISTRIBUTION OF PARTICIPANTS BY AGE GROUP

Age Group	June 30, 1999
Under 25	47
25 – 29	349
30 – 34	654
35 – 39	767
40 – 44	961
45 – 49	1,102
50 – 54	1,120
55 – 59	673
60 – 64	375
65 and Over	308
Unknown	56
Total	6,412

SECTION 6
GLOSSARY OF ACTUARIAL TERMINOLOGY

Account Balance: The nominal account amount of an individual's benefit as of a specific date, determined in accordance with the terms of the plan. The Account Balance is accumulated with contributions and interest.

Actuarial Assumptions: Assumptions as to the occurrence of future events affecting pension costs, such as mortality, withdrawal, disablement, and retirement, changes in compensation, rates of investment earnings and asset appreciation or depreciation, procedures used to determine the Actuarial Value of Assets, and other relevant items.

Actuarial Cost Method: A procedure for determining the Actuarial Present Value of pension plan benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Obligation.

Actuarial Gain or Loss: A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

Actuarial Obligation: That portion, as determined by a particular Actuarial Cost method, of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Normal Costs.

Actuarial Present Value: The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions.

Actuarial Surplus: The excess, if any, of the Actuarial Value of Assets over the Actuarial Obligation.

Actuarial Valuation: The determination, as of a Valuation Date, of the Normal Cost, Actuarial Obligation, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

Actuarial Value of Assets: The value of cash, investments and other property belonging to a pension plan, as used by the actuary for the purpose of an Actuarial Valuation.

Actuarial Equivalent: Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.

Normal Cost: The actuarial present value of benefits expected to accrue in the plan year subsequent to the valuation date. The Normal Cost is equivalent to the expected Participant and Employer contributions for the next year.

Traditional Unit Credit Actuarial Cost Method: A method under which the Actuarial Obligation is equal to the actuarial present value of benefits for service accrued to the valuation date.

Unfunded Actuarial Obligation: The excess, if any, of the Actuarial Obligation over the Actuarial Value of Assets.

Valuation Date: June 30, 1999.