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March 26, 2012

Teachers' Retirement Board
California State Teachers' Retirement System

Re: **Defined Benefit Program Actuarial Valuation as of June 30, 2011**

Dear Members of the Board:

At your request, we have performed an actuarial valuation of the Defined Benefit Program of the State Teachers' Retirement Plan as of June 30, 2011. The major findings of the actuarial valuation are contained in the following report, which reflects the benefit provisions and contribution rates in effect as of the valuation date. This report reflects the benefit provisions and contribution rates in effect as of June 30, 2011.

We certify that the information included in this report is complete and accurate to the best of our knowledge and belief. The report satisfies all basic disclosure requirements under the Model Disclosure Elements for Actuarial Valuation Reports recommended by the California Actuarial Advisory Panel. Please refer to Section 3 of this report for our full actuarial certification statement.

Actuarial computations presented in this report are for purposes of assessing the funding of CalSTRS. The calculations in the enclosed report have been made on a basis consistent with our understanding of CalSTRS' funding. Determinations for other purposes may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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(b) CalSTRS may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

We would like express our appreciation to the CalSTRS staff who gave substantial assistance in supplying the data on which this report is based.

Respectfully submitted,

Nick J. Collier, ASA, EA, MAAA
Principal and Consulting Actuary

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NJC/MCO/nlo

California State Teachers' Retirement System
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Section 1 Summary of the Findings

The primary purpose of the actuarial valuation is to analyze the sufficiency of future contributions from members, employers and the State to meet the current and future obligations of the Defined Benefit (DB) Program. By using the actuarial methods and assumptions adopted by the Teachers' Retirement Board, this actuarial valuation provides a reasonable estimate of the long-term financing of the DB Program.

The key findings of this actuarial valuation are:

Funding Sufficiency

As of June 30, 2011, the future revenue from contributions and appropriations for the DB Program is **not** expected to be sufficient to finance its obligations. This is consistent with our projections in all of the actuarial valuations since 2003.

The projected revenue shortfall is due primarily to investment return experience averaging 5.5% per year over the last decade that was significantly less than the long-term actuarial assumption of 7.50%. Based on the current DB Program assets, current revenues and all future experience emerging as assumed, the Unfunded Actuarial Obligation (UAO) will not be amortized over any future period.

A level contribution rate of 32.343% beginning on the valuation date is projected to be needed to amortize the UAO over a 30-year period. This is equivalent to an **increase of 12.925% of Earned Salaries** for a period of 30 years from the valuation date. Details of this calculation are described in the "Other Assumptions and Methods" section near the end of the Executive Summary. In particular, the additional revenue needed of 12.925% accounts for the expected future recognition of $3.9 billion of assets losses that are currently being deferred under the actuarial smoothing method.

(Percent of Earned Salaries)	2011 Valuation	2010 Valuation
Calculated Contribution Rate for 30-Year Funding Period		
Normal Cost Rate	18.299%	17.713%
Amortization Rate	14.044	15.799
Total Level Rate over the Amortization Period	32.343%	33.512%
Current Contribution Rate	19.418%*	19.276%*
Estimated Additional Revenue Needed	12.925%*	14.236%*

* *The current contribution rate includes future supplemental contributions under EC §22955(b). In 2011, these are equivalent to 1.285% of earned salaries; the additional revenue of 12.925% needed is in addition to these supplemental State contributions. See Section 8 for details on the Current Contribution Rate.*

Funding Sufficiency (continued)

As shown in the previous chart, there was a decrease in the additional revenue needed, as well as an increase in the normal cost rate, as compared to the last valuation. There were a number of factors that contributed to these changes.

The strong return (23.1%, as reported by CalSTRS) for the fiscal year ending in 2011 was the biggest factor causing the decrease in the additional revenue needed.

The adoption of new assumptions, based on the recent Experience Analysis and adopted by the Board in February 2012 (including a change in the investment return assumption to 7.50%), was the most significant factor causing increases in the additional revenue needed. However, the strong investment return had a greater impact, so there still was a net decrease in the additional revenue needed.

Note that since the UAO is not being fully funded, each year we expect an increase in the additional revenue needed as unmade payments are put off into the future. Between 2010 and 2011, this resulted in an increase in additional revenue needed of 0.8% of payroll.

The following chart shows a numerical breakdown of each of the factors that caused the change in the additional revenue needed.

Sources of Change	Additional Revenue Needed
June 30, 2010 Actuarial Valuation	**14.2%**
Expected Year-to-Year Change	
-- due to underfunding	0.8%
-- due to rolling amortization	-0.3%
Current Year Asset Gain	-3.5%
Salary / Payroll Variation	-0.3%
Assumption Changes	2.0%
All Other Sources	0.0%
Total Change	**-1.3%**
June 30, 2011 Actuarial Valuation	**12.9%**

Note that the recognition of prior year asset losses under the actuarial smoothing method had a significant impact on the Funded Ratio, as discussed later; however, the prior year's additional revenue calculation already accounted for these losses. Therefore, the recognition of prior asset losses did not cause a change in the additional revenue needed.

Funding Sufficiency (continued)

Also note that our analysis focuses on the additional revenue needed as a percentage of the total payroll. When viewed in total dollars, there was an even greater decrease in the additional revenue needed since the last valuation due to the decline in the total earned salaries. As CalSTRS is funded on a percentage of payroll basis, we will present the results for additional revenue needed on a percentage basis, as we have in the past.

Supplemental Contributions

Education Code §22955(b) describes a test for the funded status of the benefit structure in effect in 1990. As detailed in Section 7 of this report, there is a UAO as of June 30, 2011 related to the 1990 Benefit Structure. Therefore, additional supplemental contributions are called for under the current law with respect to the benefit structure in effect in 1990.

The State's supplemental contribution rate increases to 0.774% of payroll for the fiscal year beginning in 2012 based on the following schedule:

Supplemental Contributions Schedule Under 22955(b)	
Fiscal Year Beginning	**% of Earned Salaries**
2011	0.524%
2012	0.774%
2013	1.024%
2014	1.274%
2015 & Later	1.505%

The supplemental contributions are equivalent to 1.285% of payroll paid over a 30-year period. This provides a small portion of the total revenue needed; however, additional funding (over and above the supplemental contributions) of 12.925% of payroll is still needed to amortize the UAO over a 30-year period.

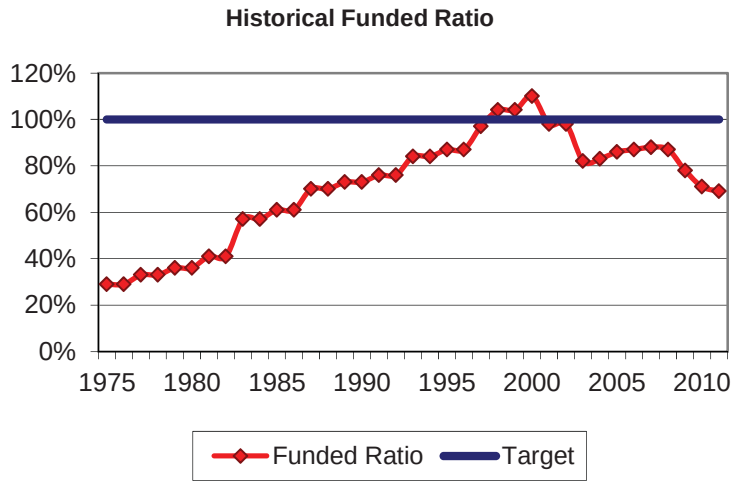
Funding Progress

The Funded Status of a retirement plan is equal to the difference between its Actuarial Value of Assets and its Actuarial Obligation. The Funded Ratio is equal to the Actuarial Value of Assets divided by the Actuarial Obligation.

($Millions)	**2011 Valuation**	**2010 Valuation**
Actuarial Obligation	$ 208,405	$ 196,315
Actuarial Value of Assets	143,930	140,291
Unfunded Actuarial Obligation	$ 64,475	$ 56,024
Funded Ratio	69.1%	71.5%

Funding Progress (continued)

Overall, the DB Program is in a slightly worse funded status compared to one year ago as measured by the Funded Ratio. Although the 23.1% return for the prior fiscal year helped to improve the Funded Ratio, the recognition of prior assets losses under the actuarial smoothing method more than offset the recognition of current year gains. The following graph shows a historical perspective of CalSTRS' funding. It shows the significant funding progress CalSTRS achieved from 1975 to 2000, and also the negative impact of the economic environment since then.



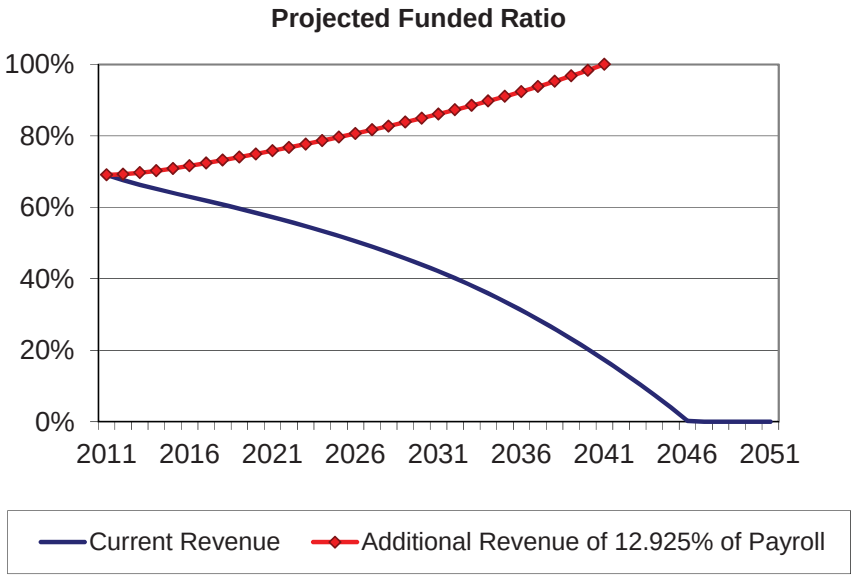
The following chart shows the factors that affected the DB Program's Funded Ratio since the last valuation. The recognition of prior asset losses was the most significant factor.

Sources of Change	Funded Ratio
June 30, 2010 Actuarial Valuation	**71.5%**
Expected Year-to-Year Change (due to underfunding)	-0.7%
Recognized Asset (Gain)/Loss	
From Prior Years	-4.1%
From Current Year	3.1%
Salary Variation	1.5%
Assumption Changes	-2.2%
All Other Sources	0.0%
Total Change	**-2.4%**
June 30, 2011 Actuarial Valuation	**69.1%**

Looking Ahead

As previously noted, CalSTRS needs a significant increase in revenue to make progress towards its funding target. Still, the DB Program assets are sufficient to make benefit payments for a number of years. However, the projected time horizon before the assets are depleted (and benefits would have to be paid on a "pay-as-you-go" basis) is expected to continue to decrease in the future – if CalSTRS is not able to secure additional funding or future investment returns do not significantly exceed the 7.50% assumption.

The following projection shows the projected Funded Ratio if the DB Program earns 7.50% in each future year and all other assumptions are met. As shown in the graph, the DB Program is projected to have its assets depleted in about 35 years (the year the Funded Ratio goes to 0%), if additional funding is not secured.



Impact of Delay

The additional revenue needed is a hypothetical calculation based on the June 30, 2011 valuation date. In particular, it assumes additional contributions will commence on that date. The reality is that increased contributions will not begin until some later date and may only increase gradually. The longer it takes for the additional contributions to begin, the greater the increase will need to be. The chart on the next page shows the impact on the additional revenue needed based on the actual implementation date. Specifically, the longer it takes to implement a funding solution, the more expensive it is likely to be.

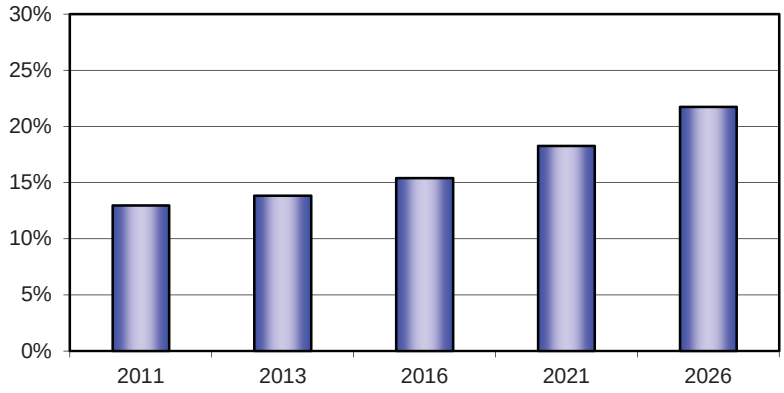
Impact of Delay (continued)

These calculations are based on the same provisions as the main additional revenue calculation except for the implementation date. In particular, it is assumed that:

- All experience is consistent with the valuation assumptions.
- Current deferred asset losses are reflected as they are expected to be recognized in the asset smoothing method.
- The entire additional contribution goes to funding the UAO.

All figures shown are calculated to fully pay off the UAO 30 years from the implementation date of the increased contribution.

Additional Revenue Needed Under Various Implementation Dates

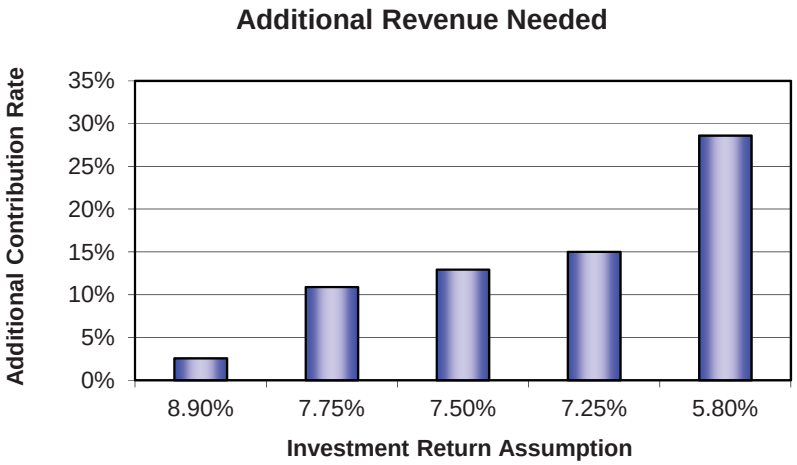


Investment Return Assumption

Future investment returns will have a material impact on the contributions ultimately needed to fund the UAO. To illustrate the sensitivity to future investment returns, we have performed an analysis of the impact of various investment return assumptions. We have shown the additional revenue needed under the valuation investment return assumption of 7.50%, as well as assumed returns that are 0.25% higher and lower.

We have also shown the additional revenue needed at 8.9% and 5.8% investment return assumptions. Based on our analysis (as shown in the recent Experience Analysis report), these are the expected returns for the 25th and 75th percentiles respectively for a 30-year period. In our analysis, we used the 2011 capital market assumptions of Pension Consulting Alliance. These percentile returns indicate the likelihood that actual future returns will deviate significantly from the current 7.50% assumption. Specifically, based on this analysis, there is a 25% chance the return will be greater than 8.9%, but also a 25% chance the return will be less than 5.8% over a 30-year period.

Investment Return Assumption (continued)



Other Assumptions and Methods

Appendix B of this report provides a detailed description of the assumptions and methods used in the valuation.

One area that should be highlighted is how the additional revenue is determined.

- In calculating the needed additional contributions, we have used the 30-year amortization period, as it is the period CalSTRS uses to assess funding sufficiency. The calculation should be viewed as an estimate, as there are a number of factors, including those discussed below, which will impact this estimate. Milliman has developed a model so that we can work with CalSTRS staff to address any specific funding proposals.
- The 12.925% increase in contribution rate discussed in this report is based on a specific point in time (June 30, 2011) and numerous assumptions about the future. Even if this increase were implemented, actual investment returns and other assumptions will vary from what is assumed. If experience is worse than assumed, particularly if investment returns are less than expected, it is likely additional contributions would be needed in the future to maintain the 30-year amortization. Setting a higher contribution rate (i.e., an increase greater than 12.925% of payroll) would provide some buffer for possible future adverse experience.
- In the projection of the Actuarial Value of Assets (AVA), current asset losses are reflected as they would be expected to be recognized in the future assuming a 7.50% investment return on the Fair Market Value of Assets. Therefore, the amortization of the UAO reflects the full extent of the asset losses that have occurred over the last decade. If the expected future impact of the deferred assets losses was not accounted for, the additional revenue needed would be 12.126% of earned salaries. This compares with 9.614% last year reported on this basis.

Other Assumptions and Methods (continued)

- The current equivalent contribution rates takes into account future State supplemental contributions under §22955(b). In other words, the additional revenue needed is in addition to the current contribution rate which includes the supplemental contributions.
- The amortization calculation assumes that the full 12.925% of total payroll will be used to fund the UAO. A 1% increase in the contribution by the State or members is actually worth less than 1% of pay, because the State contributes based on payroll that is two years old and a portion of any increase in member's contributions is expected to be refunded. Therefore, the additional revenue needed may be higher as a percent of payroll depending on the source.

Changes Since the 2010 Valuation

There were no legislative changes since the prior report that had an impact on this valuation.

This valuation reflects the new actuarial valuation assumptions, including the investment return assumption of 7.50%, that were adopted at the February 2012 Board meeting.

Further Information

Details of our findings are included in later sections of this report. The appendices include supporting documentation on the benefit and eligibility provisions used to project future benefits, the actuarial methods and assumptions used to value the projected benefits, and the underlying census data provided by CalSTRS for this valuation.

California State Teachers' Retirement System
Defined Benefit Program – 2011 Actuarial Valuation

Summary of Key Valuation Results

	2011 Valuation	2010 Valuation	Percent Change
1. Total Membership			
A. Active Members	429,600	441,544	(2.7) %
B. Inactive Members	173,719	166,976	4.0 %
C. Retired Members and Beneficiaries	253,041	243,796	3.8 %
D. Total Membership	856,360	852,316	0.5 %
2. Earned Salaries as of Valuation Date (All Members)			
A. Annual Total *($Millions)*	25,576	26,275	(2.7) %
B. Annual Average per Active Member	59,534	59,507	0.0 %
3. Average Annual Allowance Payable			
A. Service Retirement	41,004	39,624	3.5 %
4. Actuarial Obligation *($Millions)*			
A. Active Members	93,299	90,978	2.6 %
B. Inactive Members	4,487	5,601	(19.9) %
C. Retired Members and Beneficiaries	109,984	99,135	10.9 %
D. Existing MPPP Unfunded Obligation	635	601	5.7 %
E. Total	208,405	196,315	6.2 %
5. Value of System Assets *($Millions)*			
A. Fair Market Value	147,140	123,242	19.4 %
B. Deferred Investment (Gains) or Losses	3,890	23,162	
C. Actuarial Value	151,030	146,404	3.2 %
D. Ratio of Actuarial Value to Fair Value	103%	119%	
E. Less SBMA Reserve	(7,100)	(6,113)	16.1 %
F. Net Actuarial Value	143,930	140,291	2.6 %
6. Funded Status -- Actuarial Value Basis			
A. Unfunded Actuarial Obligation *($Millions)*	64,475	56,024	15.1 %
B. Funded Ratio *(5F ÷ 4E)*	69.1%	71.5%	
7. Contribution Rates *(percent of salaries)*			
A. 30-Year Projected Revenue	19.418%	19.276%	0.7 %
B. Normal Cost Rate	18.299%	17.713%	3.3 %
C. Available for Amortization of UAO *(7A – 7B)*	1.119%	1.563%	(28.4) %
D. Period to Amortize	Does not amortize	Does not amortize	
E. Projected 30-Year Level Funding Rate	32.343%	33.512%	(3.5) %
F. Projected Shortfall (Surplus) *(7E – 7A)*	12.925%	14.236%	(9.2) %
8. Funded Status -- Market Value Basis			
A. Unfunded Actuarial Obligation *($Millions)*	68,365	79,186	(13.7) %
B. Alternate Funded Ratio (Based on Market Value of Assets)	67.2%	59.7%	

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Section 2 Scope of the Report

This report presents the actuarial valuation of the Defined Benefit Program of the State Teachers' Retirement Plan as of June 30, 2011.

In reading our Actuarial Certification in Section 3, please pay particular attention to the guidelines employed in the preparation of this report. We also comment on the sources and reliability of both the data and the actuarial assumptions upon which our findings depend. Those comments are the basis for our certification that this report is complete and accurate to the best of our knowledge and belief.

A summary of the key results of this valuation is presented in the previous section. The remainder of this report is arranged as follows:

Section 4 describes the benefit obligations of CalSTRS including the development of the Normal Cost and the Actuarial Obligation.

Section 5 outlines the Fair Market Value of Assets of the DB Program and the determination of the Actuarial Value of Assets as of June 30, 2011. All of the assets of the Program are available to finance future DB Program benefits and expenses, except those allocated for the Supplemental Benefit Maintenance Account (SBMA) and for future payments from the Medical Premium Payment Program (MPPP).

Section 6 shows the relationship between the Actuarial Value of Assets and the Actuarial Obligation, also called the Funded Ratio.

Section 7 discusses the calculations used to determine if a supplemental contribution is required from the State in accordance with EC §22955(b). The key elements of this calculation pertain to an evaluation of the assets and obligations associated with the benefits in effect in 1990.

The funding sufficiency of the current projected revenue stream for the DB Program is tested in Section 8.

Scope of the Report (continued)

This report includes several appendices:

Appendix A — A summary of the current benefit structure, as determined by the provisions of governing law on June 30, 2011.

Appendix B — A summary of the actuarial methods and assumptions used to estimate actuarial obligations and the funding sufficiency.

In our opinion, the assumptions used in the valuation are reasonably related to the past experience of the DB Program, are internally consistent, and represent a reasonable estimate of future conditions affecting the DB Program. Nevertheless, the emerging costs of the DB Program will vary from those presented in this report to the extent that actual experience differs from that projected by the actuarial assumptions.

Appendix C — Schedules of valuation data classified by various categories of plan members. We relied upon the membership and beneficiary data supplied by CalSTRS. We compared the data for this and the prior valuation and tested for reasonableness. Based on these tests, we believe the data to be sufficient for the purposes of our calculations.

Appendix D — A glossary of actuarial terms used in this report.

Section 3 Actuarial Certification

The major findings of the 2011 Actuarial Valuation are contained in this report. This report reflects the benefit provisions and contribution rates in effect as of the valuation date. To the best of our knowledge and belief, this report is complete and accurate and contains sufficient information to fully and fairly disclose the funded condition of the Defined Benefit Program as of June 30, 2011.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by CalSTRS' staff. This information includes, but is not limited to, statutory provisions, employee data and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

All costs, liabilities, rates of interest and other factors for CalSTRS have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of CalSTRS and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting CalSTRS. Further, in our opinion, each actuarial assumption used is reasonably related to the experience of CalSTRS and to reasonable expectations which, in combination, represent a reasonable estimate of anticipated experience. The Teachers' Retirement Board has sole authority to determine the actuarial assumptions and methods used for the valuation of the DB Program. The Board adopted the actuarial methods and assumptions used in the 2011 valuation.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles. We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Nick J. Collier, ASA, EA, MAAA
Principal and Consulting Actuary

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Section 4 Actuarial Obligation

In this section, the discussion will focus on the commitments of CalSTRS for retirement benefits, which are referred to as its actuarial obligation.

In an active system with new entrants, the actuarial obligation, or liabilities, will generally exceed the actuarial value of assets. This deficiency has to be provided by future contributions, net actuarial gains due to experience more favorable than assumed or, to some extent, net growth in the number of active members. An actuarial valuation method sets out a schedule of future contributions and determines if they will amortize any deficiency in an orderly fashion.

Normal Cost

The **Normal Cost** represents the cost assigned to an average member for a given year such that it would meet the continuing costs of a particular benefit if contributed each year starting with the date of membership. The Entry Age Actuarial Cost Method is designed to produce a Normal Cost that remains a level percentage of Earned Salaries, so it is best expressed as a rate. Normal cost contributions are assumed to be contributed uniformly throughout the year.

The following chart shows the Normal Cost Rate has increased from 17.713% to 18.299% since the last valuation. **Table 1** provides more details on the calculation of the Normal Cost and Normal Cost Rates.

	($Millions)		
	Annualized Earned Salaries	**Normal Cost**	**Normal Cost Rate**
June 30, 2010	$ 26,450	$ 4,685	17.713%
June 30, 2011	$ 25,860	$ 4,732	18.299%

In general, the Normal Cost Rate is expected to remain fairly stable as a percentage of Earned Salaries as long as the benefit provisions are not amended, the assumptions are not changed, membership experience emerges as assumed, and the demographic characteristics of the membership remain reasonably consistent.

The adoption of the new actuarial assumptions at the February 2012 Board meeting caused an increase in the Normal Cost Rate between the 2010 and 2011 actuarial valuations.

Actuarial Obligation

The next step in the actuarial valuation process is to project all future DB Program benefit payments for current members and retirees. The level of benefits currently being paid is known, but assumptions are needed to estimate how long they will be paid, and the amount and timing of the payment of future benefits for active and inactive members who are not currently receiving payments. The summation of the discounted values of all of the projected benefit payments for all current members at the assumed rate of return is called the **Actuarial Present Value of Projected Benefits**.

Details are shown in **Table 2** and summarized below.

($Millions)	**2011 Valuation**	**2010 Valuation**
Benefits Being Paid	$ 109,984	$ 99,135
Inactive Deferred Benefits	4,487	5,601
Active Members' Benefits	149,407	146,355
Existing MPPP Unfunded Obligation	635	601
Present Value of Projected Benefits	$ 264,513	$ 251,692
Present Value of Future Normal Costs	56,108	55,377
Actuarial Obligation	$ 208,405	$ 196,315

The **Actuarial Present Value of Future Normal Costs** is the value of all remaining Normal Costs expected to be received over the future working lifetime of current active members. The **Actuarial Obligation** is the difference between the Actuarial Present Value of Projected Benefits and the Actuarial Present Value of Future Normal Costs. The Actuarial Obligation is equal to the assets that would exist if the current Normal Cost Rate had been paid for all members since entry into the Program, and if all experience had emerged as assumed.

Table 1
Normal Cost

($Millions)	2011	2010
Estimated Annual Earned Salaries [(1)]	$ 25,860	$ 26,450
Present Value of Future Normal Costs for Current Active Members	$ 56,108	$ 55,377
Present Value of Future Earned Salaries for Current Active Members	$306,619	$312,636
Normal Cost		
Retirement	$ 4,356	$ 4,278
Disability	191	202
Death	47	56
Withdrawal	138	149
Total Normal Cost	$ 4,732	$ 4,685
Normal Cost Rate Percent of Earned Salaries		
Retirement	16.844%	16.174%
Disability	0.739	0.764
Death	0.182	0.212
Withdrawal	0.534	0.563
Total Normal Cost	**18.299%**	**17.713%**

(1) Annual rate of Earned Salaries for active members on the valuation date, excluding active members over age 75 on the valuation date who are assumed to retire immediately, and therefore, do not generate a Normal Cost. Earned salaries for new entrants who have only worked a partial year have been annualized.

Table 2
Actuarial Obligation

($Millions)	2011	2010
Present Value of Projected Benefits to All Current Members		
Benefits Currently Being Paid		
Service Retirement	$102,316	$ 92,126
Disability	2,678	2,469
Survivors	4,990	4,540
Total	109,984	99,135
Benefits to Inactive Members	4,487	5,601
Benefits to Active Members		
Retirement	144,171	140,902
Disability	3,664	3,622
Death	1,086	1,262
Withdrawal	486	569
Total	149,407	146,355
Existing MPPP Unfunded Obligation	635	601
Total Present Value of Projected Benefits	$264,513	$251,692
Present Value of Future Normal Costs	56,108	55,377
Actuarial Obligation	**$208,405**	**$196,315**

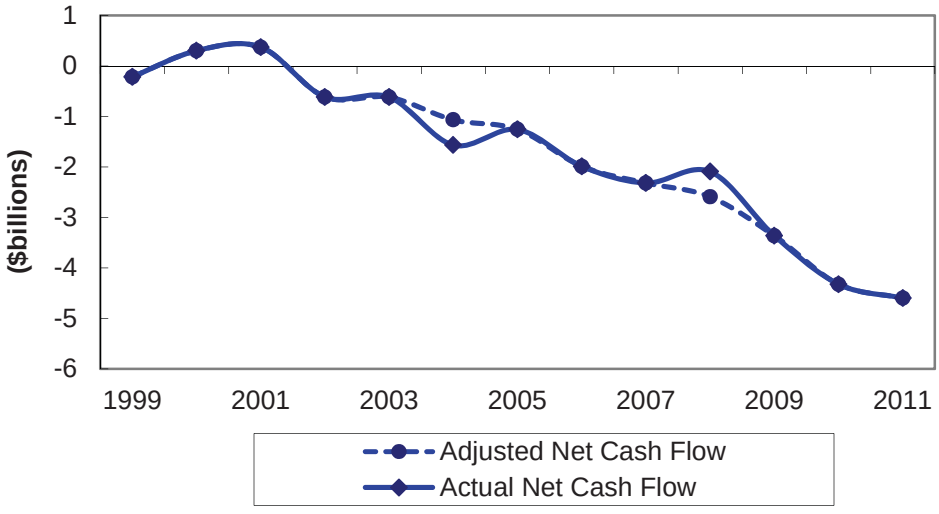
Section 5 Valuation Assets

In many respects, an actuarial valuation can be thought of as an inventory process. The inventory is taken as of the actuarial valuation date, which for this valuation is June 30, 2011. On that date, the assets available for the payment of retirement benefits are appraised.

The next step in the valuation process is to calculate the **Actuarial Value of Assets** that will be used to determine the funding status of the Program. As shown in **Table 3**, the Fair Market Value of assets was reported as $147,140 million as of June 30, 2011, up from $123,242 million as of June 30, 2010. **Table 4** shows the asset changes for the period.

As shown in Table 4, the net cash flow (contributions less benefits and expenses) continues to be increasingly negative. This is a typical pattern for a mature retirement system where it is expected that contributions will be less than benefits and that the system will begin drawing on the fund that has been built up over prior years. This trend will continue absent a significant increase in contributions.

As illustrated in the following graph, 2004 and 2008 were inconsistent with the trend over the last few years, due to a $500 million reduction in the State's contribution to the SBMA for the 2003-04 fiscal year, repaid in the 2007-08 fiscal year. The dotted line adjusts the cash flow trend for the deferral of this contribution.



Valuation Assets (continued)

Because the underlying calculations in the actuarial valuation are long-term in nature, it may be advantageous to use an asset smoothing method to lessen the impact of short-term fluctuations in the value of assets. The asset smoothing method uses a projection of the expected Actuarial Value of Assets from the Actuarial Value of Assets as of the previous year using the assumed rate of investment return. The projection then recognizes one-third of the difference between the expected value and the Fair Market Value to arrive at the Actuarial Value of Assets. The calculation of the Actuarial Value of Assets is shown in **Table 5** and the result is shown below.

($Millions)	**June, 2011**	**June, 2010**
Fair Market Value	$ 147,140	$ 123,242
Actuarial Value of Assets	$ 151,030	$ 146,404
Deferred Investment Gains or (Losses)	$ (3,890)	$ (23,162)
Ratio of AVA to FMV	103%	119%

Due to the asset smoothing method, there are investment losses of $3,890 million that have not yet been recognized (the difference between the Actuarial and Fair Market Value of Assets). Absent investment returns in future years greater than the assumed rate to offset the deferred investment losses, the current losses will gradually be reflected in the Actuarial Value of Assets.

If the future returns on the Fair Market Value of Assets are 7.50% each year, then as the current deferred losses flow through the smoothing method and are recognized, future valuations will show an actuarial loss. The result will be a slow decrease in the DB Program's funded status, ultimately increasing the Unfunded Actuarial Obligation by the $3,890 million of currently deferred investment losses.

Table 6 shows a history of the Actuarial Value of Assets compared to the Fair Market Value of Assets.

Table 3
Statement of Program Assets

($Millions)	June, 2011	June, 2010
Invested Assets		
Short-term	$ 2,561	$ 2,294
Debt Securities	26,084	27,739
Equity	74,764	61,477
Alternative	25,711	19,129
Real Estate	18,865	13,035
Total Investments	$ 147,985	$ 123,674
Cash and Cash Equivalents	587	458
Receivables	1,556	2,045
Liabilities	(2,988)	(2,935)
Fair Market Value of Net Assets	**$ 147,140**	**$ 123,242**

Table 4
Statement of Changes in Program Assets

($Millions)	June, 2011	June, 2010
Contributions		
Members	$ 2,008	$ 1,673
Employers	2,229	2,131
State of California	1,193	1,222
Total Contributions	5,430	5,026
Benefits and Expenses		
Retirement, Death and Survivors	(9,596)	(8,856)
Refunds of Member Contributions	(89)	(85)
Purchasing Power Benefits	(238)	(273)
Administrative Expenses	(104)	(134)
Total Benefits and Expenses	(10,027)	(9,348)
Net Cash Flow	**$ (4,597)**	**$ (4,322)**
Investment Income		
Realized Income	$ 3,493	$ 3,434
Net Appreciation	24,984	10,538
Net Securities Lending Income	160	563
Investment Expenses	(149)	(171)
Other (Expense) Income	7	8
Net Investment Return	28,495	14,372
Net Increase (Decrease)	**$ 23,898**	**$ 10,050**
Fair Market Value of Net Assets		
Beginning of Year	123,242	113,192
End of Year	**$ 147,140**	**$ 123,242**
Estimated Net Rate of Return [(1)]	23.6%	12.9%

(1) Estimated return on a Fair Market Value basis, net of all investment expenses and assuming uniform cash flow throughout the year. This number will likely differ from the return reported by CalSTRS as it is a dollar-weighted value, whereas CalSTRS reports time-weighted values.

Table 5
Actuarial Value of Assets

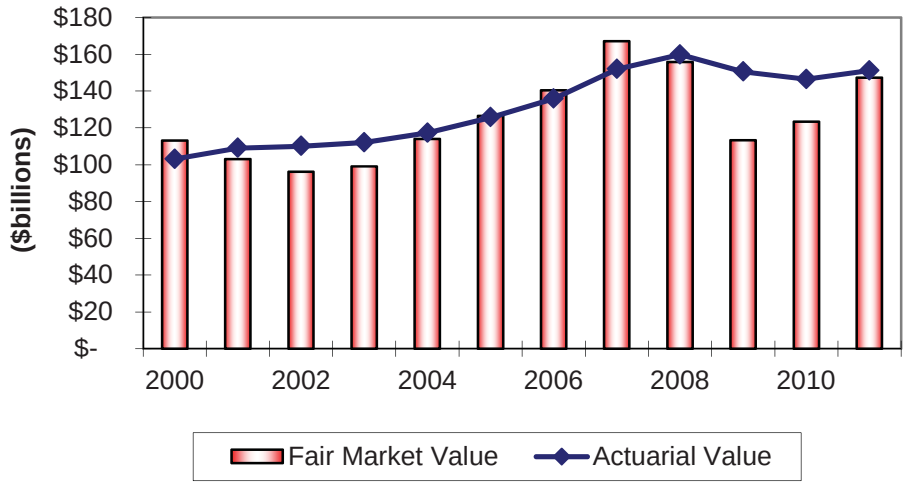
($Millions)	June, 2011	June, 2010
Actuarial Value at Beginning of Year	$ 146,404	$ 150,445
Contributions	5,430	5,026
Benefits and Expenses	(10,027)	(9,348)
Expected Return at 7.75%/8.00%	11,168	11,862
Expected Actuarial Value End of Year	$ 152,975	$ 157,985
Fair Market Value	147,140	123,242
Difference between Fair Market Value and Expected Actuarial Value	$ (5,835)	$ (34,743)
Recognition Factor	One-third	One-third
Recognized Gain or Loss	$ (1,945)	$ (11,581)
Actuarial Value at End of Year	**$ 151,030**	**$ 146,404**
Deferred Investment Gains or (Losses)	**$ (3,890)**	**$ (23,162)**
Ratio of Actuarial Value of Assets to Fair Market Value of Assets	*103%*	*119%*
Estimated Net Rate of Return (1)	6.4%	0.2%

(1) Estimated return on an Actuarial Value basis, net of all investment expenses and assuming uniform cash flow throughout the year.

Table 6
History of Actuarial Value of Assets

($Millions) June 30	Fair Market Value	Estimated Return [(1)]	Actuarial Value	Ratio of Actuarial to Market
2000	$112,771	12.7%	$102,790	91%
2001	102,915	(9.1)	108,571	105
2002	96,028	(6.1)	109,755	114
2003	99,031	3.8	111,604	113
2004	113,815	16.6	117,206	103
2005	126,447	12.3	125,665	99
2006	140,192	12.5	135,832	97
2007	166,903	20.9	151,827	91
2008	155,763	(5.5)	159,785	103
2009	113,192	(25.4)	150,445	133
2010	123,242	12.9	146,404	119
2011	147,140	23.6	151,030	103

(1) *Estimated return on a Fair Market Value basis, net of all investment expenses and assuming uniform cash flow throughout the year. This number will likely differ from the return reported by CalSTRS as it is a dollar-weighted value, whereas CalSTRS reports time-weighted values.*



Section 6 Funded Status

The **Unfunded Actuarial Obligation** (UAO) is the excess of the Actuarial Obligation over the Actuarial Value of Assets, which represents a liability that must be funded over time. Contributions in excess of the Normal Cost are used to amortize the UAO. An **Actuarial Surplus** exists if the Actuarial Value of Assets exceeds the Actuarial Obligation.

The **Funded Ratio** is equal to the Actuarial Value of Assets divided by the Actuarial Obligation. A Funded Ratio of 100% means the Value of Assets equals the Actuarial Obligation, and the DB Program could be financed by contributions equal to the Normal Cost, if all future experience emerges as assumed. The Funded Ratio is shown below and in **Table 7**.

($Millions)	**2011 Valuation**	**2010 Valuation**
Actuarial Obligation	$ 208,405	$ 196,315
Actuarial Value of Assets (AVA)		
From Table 5	151,030	146,404
Less SBMA Reserve	(7,100)	(6,113)
Net for Funding	143,930	140,291
Unfunded Actuarial Obligation	$ 64,475	$ 56,024
Funded Ratio (on AVA)	**69.1%**	**71.5%**
Alternate Funded Ratio (based on Fair Market Value)	*67.2%*	*59.7%*

Overall, the DB Program is in worse financial condition than it was one year ago as measured by the Funded Ratio. However, due to the investment gain for the 2010-11 year, the Alternate Funded Ratio using the Fair Market Value of assets has increased since the last valuation.

Future benefits provided through the Supplemental Benefits Maintenance Account (SBMA) are not part of the projected benefits included in this valuation. Therefore, the SBMA Reserve is subtracted from the DB Program assets to arrive at the value available to support the benefits included in this valuation.

Funded Status (continued)

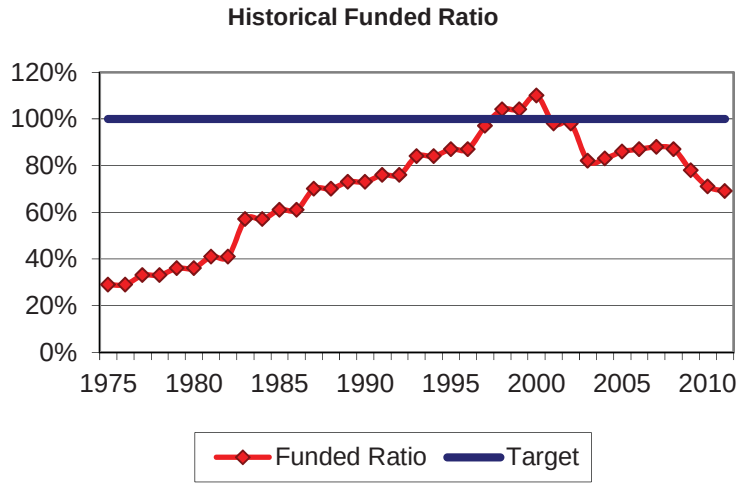
In addition, the Teachers' Retirement Board has established a policy of allocating funds for future costs associated with the Teachers' Health Benefits Fund (THBF). This policy was revised in April of 2009 to make a one-time credit to the THBF and "true up" the future MPPP obligations (payable from the THBF) in the funding of the DB Program. As of June 30, 2011, only a relatively small amount of less than $1 million resides in the THBF, while the remaining unfunded amount of $635 million is added to the DB Program obligation.

The following table shows a history of the Funded Status of the DB Program.

($Millions) Year	Actuarial Obligation	Actuarial Value of Assets	Unfunded Actuarial Obligation	Funded Ratio
1975	**$ 12,834**	**$ 3,775**	**$ 9,059**	**29%**
1977	15,203	5,019	10,184	33%
1979	17,971	6,488	11,483	36%
1981	22,545	9,345	13,200	41%
1983	26,553	15,023	11,530	57%
1985	**28,401**	**17,457**	**10,944**	**61%**
1987	34,637	24,401	10,236	70%
1989	40,266	29,327	10,939	73%
1991	47,100	36,001	11,099	76%
1993	53,581	45,212	8,369	84%
1995	**63,391**	**55,207**	**8,184**	**87%**
1997	69,852	67,980	1,872	97%
1998	74,234	77,290	(3,056)	104%
1999	86,349	90,001	(3,652)	104%
2000	93,124	102,225	(9,101)	110%
2001	109,881	107,654	2,227	98%
2003	131,777	108,667	23,110	82%
2004	138,254	114,094	24,160	83%
2005	**142,193**	**121,882**	**20,311**	**86%**
2006	150,872	131,237	19,635	87%
2007	167,129	146,419	20,710	88%
2008	177,734	155,215	22,519	87%
2009	185,683	145,142	40,541	78%
2010	196,315	140,291	56,024	71%
2011	208,405	143,930	64,475	69%

Funded Status (continued)

The historical Funded Ratios are plotted in the following graph. In years in which a valuation was not performed, the Funded Ratio from the previous year is used.



Actuarial Gains and Losses

Comparing the UAO as of two valuation dates does not provide enough information to determine if there were actuarial gains or losses. The correct comparison is between the UAO on the valuation date and the Expected UAO projected from the prior valuation date using the actuarial assumptions in effect since the previous valuation.

The actuarial gains and losses since the last report are summarized in the following tables and shown in **Table 8**.

($Millions)	Expected Results	Actual Results	(Gain) or Loss
Actuarial Obligation	$ 206,238	$ 208,405	$ 2,167
Act. Value of Assets	146,080	143,930	2,150
Unfunded Act. Oblig.	$ 60,158	$ 64,475	$ 4,317
Actuarial (Gains) or Losses by Source			
Change in actuarial assumptions			$ 6,389
Salaries increased less than assumed			(4,501)
All other non-investment sources			279
(Gain) or Loss on the Actuarial Obligation			2,167
Investment Return on Actuarial Value of Assets			1,176
Contributions (in excess of) or less than assumed			(13)
Change in the SBMA Reserve			987
(Gain) or Loss on the Actuarial Value of Assets			2,150
Total Actuarial (Gain) or Loss			$ 4,317

Actuarial Gains and Losses (continued)

($Millions)

Actuarial (Gains) or Losses on the Actuarial Obligation	(Gain) or Loss	Percent of Act. Oblig.
Change in actuarial assumptions	$ 6,389	3.1%
Salaries increased less than assumed	(4,501)	(2.2)
All other non-investment sources	279	0.1
(Gain) or Loss on the Actuarial Obligation	$ 2,167	1.0%

Actuarial (Gains) or Losses on the Actuarial Value of Assets	(Gain) or Loss	Percent of AVA
Return on Actuarial Value of Assets	$ 1,176	0.8%
Contributions less than assumed	(13)	(0.0)
Change in the SBMA Reserve	987	0.7
(Gain) or Loss on the Actuarial Value of Assets	$ 2,150	1.5%

These net gains and losses are within a reasonable range for variances in a single year given the newly adopted actuarial assumptions, the current low wage increase environment, and the significant market decline that is reflected in the Actuarial Value of Assets.

Based on the 2010 Actuarial Valuation, the UAO was expected to increase to $60,158 million. The actual UAO of $64,475 million represents a net actuarial loss of $4,317 million.

- The change in the actuarial valuation assumptions based on the 2010 Experience Analysis caused the Actuarial Obligation to increase by $6,389 million.
- Salaries increased less than predicted by the current actuarial assumptions, causing the Actuarial Obligation to decrease by $4,501 million more than expected. As history has shown, salary increases less than those assumed are often offset in future years by actual salary increases greater than those assumed. Given the recessionary economic environment, smaller-than-expected salary increases have been common among public agencies in recent years. We expect to continue to see salary increase fluctuations from year to year.
- All other non-investment experience represents only a relatively small portion of the expected Actuarial Obligation. These relatively minor net gains and losses indicate that the census is consistent from the prior period, and the actual experience tracked closely with the actuarial assumptions.

Actuarial Gains and Losses (continued)

- On the asset side, there are a number of sources of the actuarial gain or loss. First, we identified an investment return on the Fair Market Value of Assets greater than the 7.75% assumption that was used in the prior valuation. The return on market value was estimated at 23.6%, while the return on the Actuarial Value of Assets was estimated at 6.4% due to the recognition of a portion of the currently deferred investment losses.
- We do not predict future changes in the SBMA Reserve allocation in the DB Program valuation. The amount allocated to the SBMA Reserve increased by $987 million over the year. Any increase in this value results in an actuarial loss in the subsequent DB Program valuation.

Volatility Ratios

As a retirement system becomes more mature (i.e., a greater percentage of the obligation is attributable to benefits already earned), it tends to be subject to increased volatility in the contributions needed. Specifically, for CalSTRS, there may be significant swings in the Additional Revenue Needed from year to year due to the actual investment return.

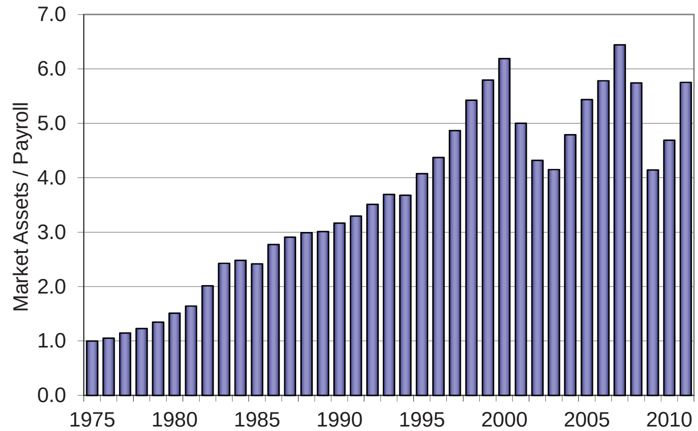
One indicator of this potential volatility is the Asset Volatility Ratio (AVR) which is equal to the Fair Market Value of Assets divided by total payroll. Plans with a high Asset Volatility Ratio will be subject to a greater level of contribution volatility. The AVR is a current measure since it is based on the current level of assets and will vary from year to year.

For CalSTRS, the current AVR is approximately equal to 6, which is typical for a mature system. This means that for each 1% asset loss (in relation to the assumed investment return), there will need to be an increase in contributions equivalent to 6% of one-year's payroll. Since CalSTRS targets a funding period of 30 years, the increase (or decrease) in the Additional Revenue Needed will be spread out over 30 years, After making this adjustment, there is a 0.27% of payroll increase (decrease) in the Additional Revenue Needed for each 1% asset loss (gain).

Volatility Ratios (continued)

The following graph shows how the system matured during the last 25 years of the 20th Century, as represented by the increasing AVR. Over the last decade, the AVR has somewhat leveled off although there continues to be year-to-year variance.

Historical Asset Volatility Ratio



Another measure of a system's maturity is the Liability Volatility Ratio, which is equal to the Actuarial Obligation divided by the total payroll. This ratio provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. In addition, this ratio provides an indication of the potential contribution volatility due to liability experience (gains and losses) and liability remeasurements (assumption changes). For CalSTRS the current LVR is approximately 8.

The following graph shows the historical LVR. It is a similar pattern to the Asset Volatility Ratio, except the increase is more gradual and the year-to-year variance is significantly less.

Historical Liability Volatility Ratio

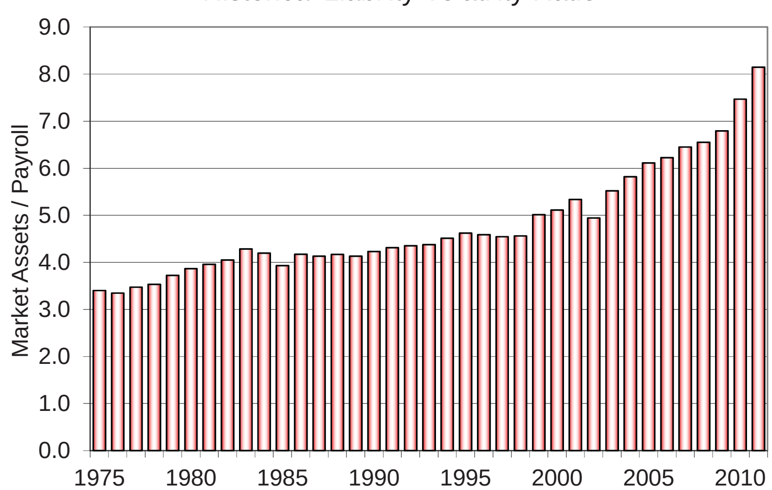


Table 7
Funded Status

($Millions)	2011	2010
Actuarial Obligation *(Table 2)*	$208,405	$196,315
Actuarial Value of Assets		
Calculated *(Table 5)*	151,030	146,404
Less SBMA Reserve	(7,100)	(6,113)
Program Assets	143,930	140,291
Unfunded Actuarial Obligation	**$ 64,475**	**$ 56,024**
Funded Ratio	**69.1%**	**71.5%**

Table 8
Actuarial Gains and Losses

($Millions)	Expected	Actual	(Gain) / Loss
Actuarial Obligation			
Actuarial Obligation June 30, 2010	$196,315		
Normal Cost for 2010-11	4,587		
Benefits Paid (Excludes Purchasing Power)	(9,685)		
Expected Interest at 7.75%	15,021		
Actuarial Obligation June 30, 2011	**$206,238**	**$208,405**	**$ 2,167**
By Source:			
Change in actuarial assumptions			*6,389*
Rehired Members			*24*
Retiree Mortality			*(73)*
Active Member Mortality			*(7)*
Service Retirements			*197*
Terminations			*108*
Disablement			*83*
Salary increases less than assumed			*(4,501)*
All Other Non-investment Sources			*(53)*
Total (Gain) Loss on the Actuarial Obligation			*$ 2,167*
Actuarial Value of Assets			
Actuarial Value of Assets June 30, 2010	$140,291		
Expected Contributions for 2010-11	4,791		
Benefits Paid (Excludes Purchasing Power)	(9,685)		
Expected Interest at 7.75% on A.V.A.	10,683		
Actuarial Value of Assets June 30, 2011	**$146,080**	**$143,930**	**$ 2,150**
By Source: *Investment Return on Actuarial Value of Assets (including the recognition of prior deferred investment gains and losses)*			*$ 1,176*
Contributions (in excess of) or less than assumed (including service purchases)			*(13)*
Change in SBMA Reserve			*987*
Total (Gain) Loss on the Actuarial Value of Assets			*$ 2,150*
Unfunded Actuarial Obligation	**$ 60,158**	**$ 64,475**	**$ 4,317**

Section 7 Supplemental Contributions

Under State law EC §22955(b), additional funds are required to be contributed by the State if at least one of the following two separate conditions is met:

- Additional funding is required if the sum of the 8% contribution from the members and the 8% contribution from the employers (excluding the 0.25% contribution for sick leave credit) is not sufficient to pay the Normal Cost of the benefits in effect as of July 1, 1990.
- Additional funding is required if the Actuarial Value of Assets associated with the benefit provisions in effect as of July 1, 1990 is less than the Actuarial Obligation for those benefits.

Normal Cost Deficit

Since the Normal Cost Rate for the 1990 Benefit Structure is less than the 16% rate cited in the statute, there is no Normal Cost Deficit.

	2011 Valuation	2010 Valuation
Normal Cost Deficit – 1990 Benefit Structure		
Normal Cost Rate	15.491%	15.002%
Revenue for 1990 Benefits	16.000	16.000
Normal Cost Deficit	0.000%	0.000%

1990 Unfunded Actuarial Obligation

The Actuarial Obligation for the DB Program is recalculated using the benefit provisions in place during 1990. CalSTRS provides us with separate census data for this determination. The process has limitations since we do not know, for example, if members who retired would have done so if the post-1990 benefit enhancements had not been enacted. However, we believe we are using a reasonable process to estimate what the Actuarial Obligation would be if only the 1990 benefits were currently in place.

There were no benefit improvements enacted between 1990 and 1998 that had a material cost. All benefit enhancements enacted with effective dates from July 1, 1990 to December 31, 1998 have been presumed to be cost-neutral. Due to the enhanced retirement benefits enacted since 1990, we are using a separate set of retirement probabilities to evaluate the 1990 Benefit Structure.

1990 Unfunded Actuarial Obligation (continued)

The Actuarial Obligation related to the 1990 Benefit Structure is $169.7 billion. This compares to the Actuarial Obligation for the DB Program of $208.4 billion.

($Millions)	2011 Valuation	2010 Valuation
Actuarial Obligation – 1990 Benefit Structure		
Value of Projected Benefits	$217,386	$206,674
Value of Future Normal Costs	47,728	47,217
Actuarial Obligation	$169,658	$159,457

The Actuarial Value of Assets needs to be adjusted to reflect the contributions started on October 1, 1998, and an estimate of the additional benefits paid out due to the post-1990 benefit increases up to June 30, 2011. This task also has some limitations since we do not have precise data regarding the portion of, or the timing of, benefit payments that would be attributable to only the 1990 benefits.

The most significant adjustments to the assets are:

- Eliminate contributions in excess of 16.00%,
- Add back the member contributions that were directed to the DBS Program,
- Add back the benefit enhancements that have been paid, and
- Adjust for interest.

See **Table 9** for the details of the asset adjustment.

($Millions)	June, 2011	June, 2010
Asset Adjustment – 1990 Benefit Structure		
Actuarial Value for DB Program	$143,930	$140,291
Adjustments per Table 9	9,452	7,680
Board's THBF allocation	0	0
Actuarial Value of Assets	$153,382	$147,971

For purposes of testing the funding sufficiency of the 1990 Benefit Structure, note that we did not reserve the Board's allocation of assets for future THBF costs because it was established subsequent to 1990.

1990 Unfunded Actuarial Obligation (continued)

The following table summarizes the Funded Status of the 1990 Benefit Structure as detailed in **Table 10**. The 1990 Benefit Structure has an Actuarial Deficit.

($Millions)	2011 Valuation	2010 Valuation
Funded Status – 1990 Benefit Structure		
Actuarial Obligation	$169,658	$159,457
Actuarial Value of Assets	153,382	147,971
Unfunded Actuarial Obligation	$ 16,276	$ 11,486
Funded Ratio	90.4%	92.8%

Supplemental State Contributions

The statute calls for a supplemental State contribution if one of the two conditions described above is met. Since a UAO on the 1990 Benefit Structure exists as of the 2011 Actuarial Valuation and it cannot be amortized based on the current rate, an increase in the State supplemental contribution rate is required. This results in a required State contribution rate of 2.791% for the fiscal year beginning in 2012.

State Contribution Rate		
Contribution Type	**FYB2012 (2011 Val)**	**FYB2011 (2010 Val)**
Basic -- EC 22955(a)	2.017%	2.017%
Supplemental -- EC 22955(b)	0.774%	0.524%
Total State Contribution Rate	2.791%	2.541%

The funded status of the 1990 Benefit Structure in future years is difficult to predict with certainty because the Actuarial Value of Assets for the 1990 Benefit Structure includes adjustments for contributions and benefits paid in excess of those in place in 1990. The benefits paid may vary considerably depending on demographic experience. In addition, the Actuarial Obligation can only be assessed accurately when current census data is evaluated along with current asset information.

Table 9
Asset Adjustment for 1990 Benefit Structure

($Millions)	2011	2010
Assets Allocated to Post-1990 Benefit Increases		
Allocated Market Value at Beginning of Year	$ 6,465	$ 4,551
Adjustment for prior DBS Program benefit payments	0	0
Contributions During the Year		
EC §22951 at 0.250% of Earned Salaries	(68)	(65)
EC §22955 at 2.017% of second preceding fiscal year Earned Salaries	(567)	(564)
2% DBS redirection reallocated to DB Program	264	555
THBF costs reallocated to DB Program	36	32
Total Adjustment to Contributions[1]	(335)	(42)
Benefits Paid During the Year		
Post-1990 Benefits Paid During the Year	1,462	1,305
2% DBS redirection reallocated to DB Program	(20)	(10)
Total Adjustment to Benefits Paid	1,442	1,295
Estimated Investment Earnings for the Year [2]	1,637	661
Total Allocated Market Value at End of Year	**$ 9,209**	**$ 6,465**
Ratio of Actuarial Value to Market Value [3]	102.644%	118.794%
Actuarial Value of Assets for Post-1990 Benefit Increases	**$ 9,452**	**$ 7,680**

(1) May not add exactly, due to rounding.

(2) Based on Fair Market Value and uniform cash flow for contributions, benefits and expenses. The rates of return used in these calculations were 12.94% for 2009-10 and 23.56% for 2010-11.

(3) Developed from Table 5.

Table 10
Funding Sufficiency for 1990 Benefit Structure

($Millions)	2011	2010
Actuarial Obligation		
Present Value of Projected Benefits		
Benefits Currently Being Paid	$ 91,802	$ 83,075
Benefits to Inactive Members	4,363	5,439
Benefits to Active Members	121,221	118,160
Total	$217,386	$206,674
Present Value of Future Normal Costs	47,728	47,217
Actuarial Obligation	$169,658	$159,457
Actuarial Value of Assets		
Actuarial Value of Assets *(Table 7)*	$143,930	$140,291
Plus, Asset Adjustment *(Table 9)*	9,452	7,680
Plus, Allocation to Health Benefits	0	0
Net Assets Available	$153,382	$147,971
Funded Status		
Actuarial Obligation	$169,658	$159,457
Actuarial Value of Assets	153,382	147,971
Unfunded Actuarial Obligation (Surplus)	$ 16,276	$ 11,486
Funded Ratio	90.4%	92.8%
Amortization Period		
Revenue for 1990 Benefits	16.000%	16.000%
Normal Cost Rate for 1990 Benefits	(15.491)	(15.002)
EC 22955(b)	1.285	1.206
Revenue Available for Amortization	1.794%	2.204%
Amortization Period	*Does Not Amortize*[(1)]	*Does Not Amortize*[(1)]

(1) The available revenue does not pay off the Unfunded Actuarial Obligation over any period. Note that this factors in the expected recognition of losses that are currently deferred.

Table 11
Amortization of 1990 Unfunded Actuarial Obligation[(1)]
(Deferred Losses are Recognized)

($Millions)		Beginning	Amortization Payment				Interest	Recognition of	Ending
		Unfunded	16%	Supp.	Normal	Available	Charge	Deferred	Unfunded
Year	FYE	Act. Oblig.	Contrib.	Contrib.	Cost	Amtzn.	at 7.50%	Asset Losses	Act. Oblig.
1	2012	$16,276	$4,299	$136	$4,162	$273	$1,211	$1,394	$18,608
2	2013	18,608	4,459	211	4,318	352	1,383	999	20,638
3	2014	20,638	4,627	275	4,480	422	1,532	716	22,464
4	2015	22,464	4,801	355	4,648	508	1,666	513	24,135
5	2016	24,135	4,981	435	4,822	594	1,788	368	25,697
6	2017	25,697	5,167	452	5,003	616	1,905	264	27,250
7	2018	27,250	5,362	468	5,191	639	2,020	189	28,820
8	2019	28,820	5,562	486	5,385	663	2,137	135	30,429
9	2020	30,429	5,771	504	5,587	688	2,257	97	32,095
10	2021	32,095	5,987	523	5,797	713	2,381	70	33,833
11	2022	33,833	6,211	543	6,014	740	2,510	50	35,653
12	2023	35,653	6,445	563	6,240	768	2,645	36	37,566
13	2024	37,566	6,686	584	6,473	797	2,788	26	39,583
14	2025	39,583	6,937	606	6,716	827	2,938	18	41,712
15	2026	41,712	7,197	629	6,968	858	3,097	13	43,964
16	2027	43,964	7,466	653	7,229	890	3,264	9	46,347
17	2028	46,347	7,747	677	7,501	923	3,442	7	48,873
18	2029	48,873	8,038	702	7,782	958	3,630	5	51,550
19	2030	51,550	8,339	729	8,074	994	3,829	3	54,388
20	2031	54,388	8,652	756	8,376	1,032	4,041	2	57,399
21	2032	57,399	8,976	784	8,690	1,070	4,265	2	60,596
22	2033	60,596	9,312	814	9,016	1,110	4,504	1	63,991
23	2034	63,991	9,662	844	9,354	1,152	4,757	1	67,597
24	2035	67,597	10,024	876	9,705	1,195	5,026	1	71,429
25	2036	71,429	10,400	909	10,069	1,240	5,311	0	75,500
26	2037	75,500	10,790	943	10,447	1,286	5,615	0	79,829
27	2038	79,829	11,195	978	10,839	1,334	5,938	0	84,433
28	2039	84,433	11,614	1,015	11,245	1,384	6,281	0	89,330
29	2040	89,330	12,050	1,053	11,667	1,436	6,647	0	94,541
30	2041	94,541	12,502	1,092	12,104	1,490	7,036	0	100,087

(1) There is currently an Unfunded Actuarial Obligation based on the 1990 Benefit Structure which cannot be amortized by the current contribution rate, so a 0.25% increase in the State supplemental contribution rate is required.

Section 8 Funding Sufficiency

The contributions to fund the DB Program include those listed below and described in **Table 12,** including reference to the appropriate section of the California Education Code. Since each contribution is not paid uniformly over time as a percentage of Earned Salaries, we have calculated an equivalent rate over a 30-year period, the period used to test the sufficiency of the statutory revenue stream.

Source of Revenue	FYE2011 Rate	Equivalent Rate
Members	8.000%	8.000%
Directed to DBS Accounts	(0.000)	(0.000)
Employers	8.000	8.000
Employers – Sick Leave	0.250	0.250
State	2.017	1.883
State – 1990 Benefit Structure	0.524	1.285
Equivalent Level Contribution Rate over 30 Years		**19.418%**

The basic State contribution rate will be 2.017% of the second preceding fiscal year Earned Salaries, which is equivalent to a lesser percentage of current Earned Salaries. For example, the State contribution for the 2011-12 will be equal to 2.017% of the 2009-10 Earned Salaries. Based on two years of known future contributions and projections for the other years, the equivalent rate for the 30-year period is 1.883% of current Earned Salaries.

As demonstrated in Tables 10 and 11, the supplemental contribution from the State for the 1990 benefit structure is required at this time. The equivalent contribution rate for the supplemental contributions over the 30-year period is 1.285%.

The calculation of the equivalent rates in **Table 13** results in 19.418% of Earned Salaries over a 30-year period.

Table 14 shows the amortization of the Unfunded Actuarial Obligation on a year-by-year basis. Based on the current Actuarial Value of Assets and all future experience emerging as assumed, the UAO will not be amortized over the next 30 years. This is consistent with our projections from prior valuations.

Funding Sufficiency (continued)

Table 15 summarizes these findings. Note that the supplemental contributions under EC §22955(b) are reflected.

	2011 Valuation	2010 Valuation
Normal Cost Rate	18.299%	17.713%
Amortization Rate	14.044*	15.799*
Total Level Rate over a 30-Year Period	32.343%	33.512%
Projected Revenue	19.418%	19.276%
Estimated Additional Revenue Needed	12.925%*	14.236%*

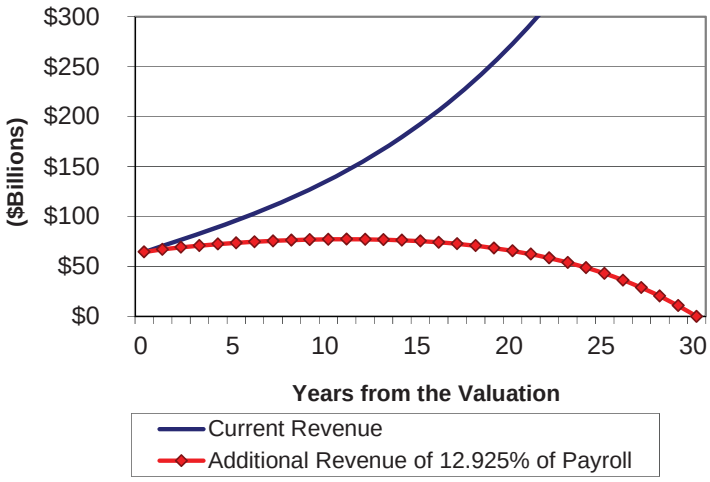
**The additional revenue needed reflects the expected future recognition of asset losses currently being deferred in the June 30, 2011 Actuarial Value of Assets.*

It is clear that, based on the current data, methods and assumptions, the projected revenue for the DB Program is not sufficient.

Table 16 (in the same format as Table 14) shows the amortization of the Unfunded Actuarial Obligation over a 30-year period **if contribution revenue were increased by 12.925% of current year Earned Salaries** on the valuation date. We did not address the source of the additional revenue as it is not relevant to the amortization schedule, except as previously noted an increase in the State and member contribution rates would have to be greater than 1.0% of payroll to be equivalent to a 1.0% contribution to pay off the UAO.

The following graph illustrates the expected amortization of the UAO with and without the additional revenue stream. This is based on a future investment return of 7.50% each year going forward and all other assumptions being met.

Projected Unfunded Actuarial Obligation



Funding Sufficiency (continued)

One of the future contingencies that may lessen the impact of the funding shortage is the potential growth of the active DB Program membership. An increase in the number of active members will improve the financial condition of the DB Program because the additional revenue should exceed the expected Normal Cost Rate (the Normal Cost Rate is the expected total cost for a new member).

The excess of revenue over the Normal Cost Rate for additional members will provide added resources to finance the current UAO. However, as the total current contribution rate is only slightly greater than the Normal Cost Rate, an increasing active population would not be expected to have a significant impact based on the current contribution level.

Conversely, a declining active population, which has been the recent experience of CalSTRS, could have a negative impact on the additional revenue percentage needed.

Table 12
Contributions

		Current Rate	Equivalent Rate [1]
EC 22901	Members	8.000%	8.000%
EC 22950 & 22951	Employers	8.250	8.250
EC 22950 (c)	Employers for THBF [2]	*as needed*	0.000
EC 22955 (a)	State [3]	2.017	1.883
EC 22955 (b)	State [4]	*varies by year*	1.285
Equivalent Level Contribution Rate over 30-Year Period			**19.418%**

(1) Equivalent level contribution rate payable over the next 30 years. See Table 13 for details.

(2) The Teachers' Health Benefit Fund is financed by a redirection of employer contributions. The Teachers' Retirement Board has set aside DB Program assets to finance these future costs. This is reflected in the valuation by adding the unfunded obligation for future THBF benefits to the Actuarial Obligation of the DB Program. See Table 2.

(3) The State's contribution of 2.017% is paid quarterly based on second prior fiscal year salaries.

(4) Additional funding is provided only if the Normal Cost Rate is greater than 16.000% of salaries for benefits in effect on July 1, 1990 or there is an Unfunded Actuarial Obligation (related to the 1990 Benefit Structure). The 1990 Benefit Structure was not adequately funded beginning with the June 30, 2010 actuarial valuation, so additional contributions are required.

Table 13
30-Year Projection of Contributions

($Millions)			Member	Employer			
	Projected	Member	DBS	*22950 &*	State	State	Total
FYE	Salaries	22901	*22901.5*	*22951*	*22955(a)*	*22955(b)*	Contrib.
2012	$26,866	$2,149	$0	$2,216	$524	$136	$5,025
2013	27,873	2,230	0	2,300	549	211	5,290
2014	28,919	2,313	0	2,386	542	275	5,516
2015	30,003	2,400	0	2,475	562	355	5,792
2016	31,128	2,490	0	2,568	583	435	6,076
2017	32,296	2,584	0	2,664	605	452	6,305
2018	33,507	2,681	0	2,764	628	468	6,541
2019	34,763	2,781	0	2,868	651	486	6,786
2020	36,067	2,885	0	2,976	676	504	7,041
2021	37,419	2,994	0	3,087	701	523	7,305
2022	38,822	3,106	0	3,203	727	543	7,579
2023	40,278	3,222	0	3,323	755	563	7,863
2024	41,789	3,343	0	3,448	783	584	8,158
2025	43,356	3,468	0	3,577	812	606	8,463
2026	44,982	3,599	0	3,711	843	629	8,782
2027	46,668	3,733	0	3,850	874	653	9,110
2028	48,418	3,873	0	3,995	907	677	9,452
2029	50,234	4,019	0	4,144	941	702	9,806
2030	52,118	4,169	0	4,300	977	729	10,175
2031	54,072	4,326	0	4,461	1,013	756	10,556
2032	56,100	4,488	0	4,628	1,051	784	10,951
2033	58,204	4,656	0	4,802	1,091	814	11,363
2034	60,387	4,831	0	4,982	1,132	844	11,789
2035	62,651	5,012	0	5,169	1,174	876	12,231
2036	65,000	5,200	0	5,363	1,218	909	12,690
2037	67,438	5,395	0	5,564	1,264	943	13,166
2038	69,967	5,597	0	5,772	1,311	978	13,658
2039	72,591	5,807	0	5,989	1,360	1,015	14,171
2040	75,313	6,025	0	6,213	1,411	1,053	14,702
2041	78,137	6,251	0	6,446	1,464	1,092	15,253
PV [(1)]	$486,790	$38,943	$0	$40,160	$9,166	$6,257	$94,526
Level Rate [(2)]		**8.000%**	**-**	**8.250%**	**1.883%**	**1.285%**	**19.418%**

(1) Present Value, as of the valuation date, of 30-year series of contributions and appropriations.

(2) Equivalent level rate payable over the 30-year period.

Table 14
Amortization of Unfunded Actuarial Obligation [1] [2]

($Millions)		Beginning	Amortization Payment			Interest	Recognition of	Ending
		Unfunded	Total	Normal	Available	Charge	Deferred	Unfunded
Year	FYE	Act. Oblig.	Contrib.	Cost	Amtzn.	at 7.50%	Asset Losses	Act. Oblig.
1	2012	$64,475	$5,026	$4,916	$110	$4,832	$1,394	$70,591
2	2013	70,591	5,289	5,101	188	5,287	999	76,689
3	2014	76,689	5,516	5,292	224	5,743	716	82,924
4	2015	82,924	5,793	5,490	303	6,208	513	89,342
5	2016	89,342	6,077	5,696	381	6,687	368	96,016
6	2017	96,016	6,305	5,910	395	7,187	264	103,072
7	2018	103,072	6,541	6,131	410	7,715	189	110,566
8	2019	110,566	6,786	6,361	425	8,277	135	118,553
9	2020	118,553	7,041	6,600	441	8,875	97	127,084
10	2021	127,084	7,305	6,847	458	9,514	70	136,210
11	2022	136,210	7,579	7,104	475	10,198	50	145,983
12	2023	145,983	7,863	7,371	492	10,931	36	156,458
13	2024	156,458	8,158	7,647	511	11,715	26	167,688
14	2025	167,688	8,464	7,934	530	12,557	18	179,733
15	2026	179,733	8,781	8,231	550	13,460	13	192,656
16	2027	192,656	9,111	8,540	571	14,428	9	206,522
17	2028	206,522	9,452	8,860	592	15,467	7	221,404
18	2029	221,404	9,807	9,192	615	16,583	5	237,377
19	2030	237,377	10,174	9,537	637	17,780	3	254,523
20	2031	254,523	10,556	9,895	661	19,065	2	272,929
21	2032	272,929	10,952	10,266	686	20,444	2	292,689
22	2033	292,689	11,363	10,651	712	21,925	1	313,903
23	2034	313,903	11,789	11,050	739	23,516	1	336,681
24	2035	336,681	12,231	11,465	766	25,223	1	361,139
25	2036	361,139	12,689	11,894	795	27,056	0	387,400
26	2037	387,400	13,165	12,340	825	29,025	0	415,600
27	2038	415,600	13,659	12,803	856	31,139	0	445,883
28	2039	445,883	14,171	13,283	888	33,409	0	478,404
29	2040	478,404	14,703	13,781	922	35,846	0	513,328
30	2041	513,328	15,254	14,298	956	38,465	0	550,837

(1) Based on the actuarial value of assets with projected recognition of deferred known asset losses as of June 30, 2011.

(2) Supplemental State contributions under EC §22955(b) are included, as they are required based on the current valuation.

Table 15
Funding Sufficiency

($Millions)	June, 2011	June, 2010
Funded Status ***(Table 7)***		
Actuarial Obligation	$ 208,405	$ 196,315
Actuarial Value of Assets	143,930	140,291
Unfunded Actuarial Obligation	$ 64,475	$ 56,024
Funded Ratio	69.1%	71.5%
Level Contributions over 30 Years ***(Table 12)***	19.418%	19.276%
Amortization Period based on Current Revenues		
Total Level Rate over the Amortization Period	19.418%	19.276%
Normal Cost Rate	18.299	17.713
Amortization Rate	1.119%	1.563%
Amortization Period (Based on current revenue projections)	*Does not amortize*	*Does not amortize*
Calculated Contribution Rate for 30-Year Funding Period		
Normal Cost Rate	18.299%	17.713%
Amortization Rate	14.044	15.799
Total Level Rate over the Amortization Period	32.343%	33.512%
Estimated Additional Revenue Needed *(Based on current valuation assumptions)*	12.925%	14.236%

Table 16
Amortization of Unfunded Actuarial Obligation [1]
Including Sufficient Additional Contributions [2] [3]

($Millions)		Beginning	Amortization Payment			Interest	Recognition of	Ending
		Unfunded	Total	Normal	Available	Charge	Deferred	Unfunded
Year	FYE	Act. Oblig.	Contrib.	Cost	Amtzn.	at 7.50%	Asset Losses	Act. Oblig.
1	2012	$64,475	$8,499	$4,916	$3,583	$4,704	$1,394	$66,990
2	2013	66,990	8,891	5,101	3,790	4,885	999	69,084
3	2014	69,084	9,254	5,292	3,962	5,035	716	70,873
4	2015	70,873	9,671	5,490	4,181	5,161	513	72,366
5	2016	72,366	10,100	5,696	4,404	5,265	368	73,595
6	2017	73,595	10,479	5,910	4,569	5,351	264	74,641
7	2018	74,641	10,872	6,131	4,741	5,424	189	75,513
8	2019	75,513	11,280	6,361	4,919	5,482	135	76,211
9	2020	76,211	11,703	6,600	5,103	5,528	97	76,733
10	2021	76,733	12,141	6,847	5,294	5,560	70	77,069
11	2022	77,069	12,597	7,104	5,493	5,578	50	77,204
12	2023	77,204	13,069	7,371	5,698	5,581	36	77,123
13	2024	77,123	13,559	7,647	5,912	5,567	26	76,804
14	2025	76,804	14,068	7,934	6,134	5,534	18	76,222
15	2026	76,222	14,595	8,231	6,364	5,482	13	75,353
16	2027	75,353	15,142	8,540	6,602	5,408	9	74,168
17	2028	74,168	15,710	8,860	6,850	5,310	7	72,635
18	2029	72,635	16,299	9,192	7,107	5,186	5	70,719
19	2030	70,719	16,911	9,537	7,374	5,033	3	68,381
20	2031	68,381	17,545	9,895	7,650	4,847	2	65,580
21	2032	65,580	18,203	10,266	7,937	4,626	2	62,271
22	2033	62,271	18,885	10,651	8,234	4,367	1	58,405
23	2034	58,405	19,594	11,050	8,544	4,066	1	53,928
24	2035	53,928	20,328	11,465	8,863	3,718	1	48,784
25	2036	48,784	21,091	11,894	9,197	3,320	0	42,907
26	2037	42,907	21,882	12,340	9,542	2,867	0	36,232
27	2038	36,232	22,702	12,803	9,899	2,353	0	28,686
28	2039	28,686	23,553	13,283	10,270	1,774	0	20,190
29	2040	20,190	24,437	13,781	10,656	1,122	0	10,656
30	2041	10,656	25,353	14,298	11,049	393	0	0

(1) Based on the actuarial value of assets.

(2) An additional contribution of 12.925% of Earned Salaries is included for each of the 30 years. This schedule is for illustrative purposes only since any legislated increase in contributions would likely be effective after the valuation date.

(3) Supplemental State contributions under EC §22955(b) are included, as they are required based on the current valuation.

Appendix A Provisions of Governing Law

All of the actuarial calculations contained in this report are based upon our understanding of the CalSTRS DB Program as contained in Part 13 of the California Education Code. The provisions used in this valuation are summarized below for reference purposes.

Member Contributions

Contribution Rate:	8.0% of creditable compensation. The employer can pay all or a portion of a member's contributions. 25% of this contribution was redirected to the member's Defined Benefit Supplement account from January 1, 2001 through December 31, 2010. The redirection of member contributions does not apply to the 1990 Benefit Structure.
Interest Rate:	Interest is credited at the end of each fiscal year based on rates adopted by the Teachers' Retirement Board. Currently, rates are approximately equal to two-year Treasury notes.

Normal Retirement

Eligibility Requirement:	Age 60 with five years of credited service.
Allowance:	Two percent of final compensation for each year of credited service.
Final Compensation:	Average salary earnable for the highest three consecutive years of credited service for one position. For members with 25 years of service, the calculation is based on the highest average compensation earnable in a consecutive 12-month period. 12-month highest average compensation does not apply to the 1990 Benefit Structure.
Credited Service:	For each year of membership, credited service is granted based on the ratio of salary earned to full-time salary earnable for one position.
Sick Leave Service Credit:	Credited service is granted for unused sick leave at the time of retirement. Sick Leave Service Credit up to 0.2 years of Credited Service may be used for eligibility for One-Year Final Compensation or to attain the Career Factor or the Longevity Bonus. Unused sick leave service credit does not apply to the 1990 Benefit Structure.
Career Factor:	If a member has 30 years of credited service, the age factor is increased by 0.2%. However, the maximum age factor is 2.4%. Career factor does not apply to the 1990 Benefit Structure.

Normal Retirement (continued)

Longevity Bonus:	For members attaining 30 years of service by January 1, 2011, a longevity bonus of $200 per month is added to the unmodified allowance. The bonus is increased to $300 per month with 31 years of service, and $400 per month with 32 or more years of service. Longevity bonus does not apply to the 1990 Benefit Structure.
IRC Section 415:	Benefits are subject to limits imposed under Internal Revenue Code (IRC) Section 415. However, no limits are imposed in the valuation of the DB Program in order to address the potential pay-as-you-go funding needs of the Teachers' Replacement Benefits Program Fund.
IRC Section 401(a)(17):	Compensation is limited under IRC Section 401(a)(17) and assumed to increase at the rate of inflation for valuation purposes. Current 401(a)(17) limits do not apply to members hired before July 1, 1993.

Early Retirement

Eligibility Requirement:	Age 55 with five years of credited service, or age 50 with 30 years of credited service.
Benefit Reduction:	A 1/2% reduction in the normal retirement allowance for each full month or partial month the member is younger than age 60, plus a reduction of 1/4% for each full month or partial month the member is younger than age 55.

Late Retirement

Allowance:	Members continue to earn additional service credit after age 60. The 2% age factor increases by 0.033% for each quarter year of age that the member is over age 60, up to a maximum of 2.4%. The late retirement adjustment does not apply to the 1990 Benefit Structure.

Deferred Retirement

Allowance:	Any time after satisfying the minimum service requirement, a member may cease active service, leave the accumulated contributions on deposit, and later retire upon attaining the minimum age requirement.

Post-Retirement Benefit Adjustment

Benefit Improvement:	2% simple increase on September 1 following the first anniversary of the effective date of the allowance, applied to all continuing allowances.

Disability Allowance - Coverage A

Eligibility Requirement:	Member has five years of credited California service and has not attained age 60.
Allowance*:	50% of final compensation or 5% of final compensation for each year of service credit if over age 45 with less than 10 years of service credit.
Children's Benefit:	10% for each eligible dependent child, up to a maximum of 40% of final compensation. The increment for each eligible child continues until the child marries or attains age 22.
Offsets:	Allowance, including children's increment, is reduced by disability benefits payable under Social Security, Workers' Compensation and district-paid income protection plan.

Disability Allowance - Coverage B

Eligibility Requirement:	Member has five years of credited California service.
Allowance*:	50% of final compensation, regardless of age and service credit.
Children's Benefit:	10% for each eligible child up to four children, for a maximum of 40% of final compensation. The increment for each child continues until the child attains age 21, regardless of student, marital, or employment status.
Offsets:	The member's allowance is reduced by disability benefits payable under Workers' Compensation.

Death Before Retirement - Coverage A

Eligibility Requirement:	One or more years of service credit for active members or members receiving a disability allowance.
Lump Sum Payment:	$6,163 lump sum to the designated beneficiary. If there is no surviving spouse, domestic partner or eligible children, the contributions and interest are paid to the designated beneficiary.

**Note that, for valuation purposes, the greater of the service retirement allowance and disability allowance is valued if the member is eligible for service retirement.*

Death Before Retirement - Coverage A (continued)

Allowance:	The surviving spouse or domestic partner with eligible children will receive a family benefit of 40% of final compensation for as long as there is at least one eligible child. An additional 10% of final compensation is payable for each eligible child up to a maximum benefit of 90%. If there is no surviving spouse or domestic partner, an allowance of 10% of final compensation is payable to eligible children up to a maximum benefit of 50%. When there are no eligible children, the spouse or domestic partner may elect to receive one half of a 50% joint and survivor allowance projected to age 60, or take a lump sum payment of the remaining contributions and interest.

Death Before Retirement - Coverage B

Eligibility:	One or more years of service credit for active members.
Lump Sum Payment:	$24,652 lump sum to the designated beneficiary. If there is no surviving spouse or domestic partner, the contributions and interest are paid to the designated beneficiary.
Allowance:	A lump sum payment of the contributions and interest. or One-half of a 50% joint and survivor allowance, beginning on the member's 60th birthday, or immediately with a reduction based on the member and spouse's (or domestic partner's) age at the time the benefit begins. If the surviving spouse or domestic partner elects a monthly allowance, each eligible child would receive 10% of the member's final compensation, with a maximum benefit of 50%.

Death After Retirement

Lump Sum Payment:	$6,163 lump sum to the designated beneficiary.
Annuity Form:	If the retiree had elected one of the joint and survivor options, the retirement allowance would be modified in accordance with the option selected. If no option had been elected, payment of the unpaid contributions and interest, if any, remaining in the retiree's account.

Termination from the Program

Refund:	Refund of contributions with interest as credited to the member's account to date of withdrawal. A refund terminates membership and all rights to future benefits from the System.
Re-entry After Refund:	Former members, who re-enter the System, may redeposit all amounts previously refunded plus regular interest. The member must earn one year of credited service after re-entry before becoming eligible for System benefits.

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Appendix B Actuarial Methods and Assumptions

This section of the report discloses the actuarial methods and assumptions used in this actuarial valuation. These methods and assumptions have been chosen on the basis of recent experience of the DB Program and on current expectations as to future economic conditions.

The assumptions are intended to estimate the future experience of the members of the DB Program and of the DB Program itself in areas that 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 DB Program's benefits.

Actuarial Cost Method

The accruing costs of all benefits are measured by the Entry Age Normal Actuarial Cost Method. The projected revenue in excess of the Normal Cost is tested for sufficiency to amortize the Unfunded Actuarial Obligation created by this method. Amortization is calculated on a level percentage of salary including general wage inflation but no increase or decrease in the number of active members.

Method:

The actuarial present value of projected benefits for each individual member included in the valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to a valuation year is called the Normal Cost. The Normal Cost is based on the benefit structure available to new entrants on the valuation date with an adjustment for the impact of the 2% redirection to the DBS Program that occurred from January 1, 2001 to December 31, 2010. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future Normal Costs is called the Actuarial Obligation. The excess of the Actuarial Obligation over the Actuarial Value of Assets is called the Unfunded Actuarial Obligation. If the Actuarial Value of Assets exceeds the Actuarial Obligation, the difference is called the Actuarial Surplus.

Entry Age:

The ages at entry of future active members are assumed to average the same as the entry ages of the present active members they replace. If the number of active members should increase (or decrease), it is further assumed that the average entry age of the larger (or smaller) group will be the same, from an actuarial standpoint, as that of the present active group. Under these assumptions, the Normal Cost Rate will not vary significantly due to the termination of the present active membership, or with an expansion or contraction of the active membership.

Asset Valuation Method

The assets are valued using a method that delays recognition of investment gains or losses. The expected actuarial value is the prior year's actuarial value increased with net cash flow of funds, and all increased with interest during the past year at the expected investment return assumption. One-third of the difference between the expected actuarial value of assets and the Fair Market Value of assets is added to the expected actuarial value of assets to arrive at the Actuarial Value of Assets.

The asset smoothing method was adopted for the 1999 Actuarial Valuation and is effective for the investment experience beginning in July of 1993.

Actuarial Assumptions

The Actuarial Standards Board has adopted Actuarial Standard of Practice No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*. This Standard provides guidance on selecting economic assumptions under defined benefit retirement programs such as the System. In our opinion, the economic assumptions have been developed in accordance with the Standard.

The Actuarial Standards Board has adopted Actuarial Standard of Practice No. 35, *Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations*. This Standard provides guidance on selecting demographic assumptions under defined benefit retirement programs such as the System. In our opinion, the demographic assumptions have been developed in accordance with the Standard.

The assumptions are intended to estimate the future experience of the members of the DB Program and of the System itself in areas that 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 listed in **Table B.1** and illustrated at selected ages and duration combinations in **Tables B.2** – **B.7**.

Table B.1
List of Major Valuation Assumptions

I. Economic Assumptions

A.	Investment Return (net of investment and administrative expenses)	7.50%
B.	Interest on Member Accounts	4.50%
C.	Wage Growth	3.75%
D.	Inflation	3.00%

II. Demographic Assumptions

A. Mortality*

Active	- Male	2011 CalSTRS Retired – M (-2 years)	Table B.2
	- Female	2011 CalSTRS Retired – F (-2 years)	Table B.2
Retired & Beneficiary **	- Male	2011 CalSTRS Retired – M	Table B.2
	- Female	2011 CalSTRS Retired – F	Table B.2
Disabled **	- Male	2011 CalSTRS Disabled – M	Table B.2
	- Female	2011 CalSTRS Disabled– F (select rates in first three years for both Males and Females)	Table B.2

* *The mortality assumptions specified contain a margin for expected future mortality improvement. Refer to the 2011 Experience Analysis Report for details. See Table B.9 of this report for a key to the custom mortality tables used for CalSTRS.*

** *Future retirees and beneficiaries are valued with a 2-year age setback*

B.	Service Retirement	Experience Tables	Table B.3
C.	Disability Retirement	Experience Tables	Table B.4
D.	Withdrawal	Experience Tables	Table B.5
	Probability of Refund	Experience Tables	Table B.6
E.	Merit Salary Increases	Experience Tables	Table B.7
F.	Supplemental Assumptions		Table B.8

Table B.2
Mortality

	Active Members	
Age	**Male**	**Female**
25	0.023%	0.013%
30	0.033	0.014
35	0.034	0.018
40	0.057	0.034
45	0.076	0.041
50	0.103	0.063
55	0.143	0.093
60	0.238	0.179
65	0.435	0.368

	Retired Members and Beneficiaries *		Disabled Members (After Year 3) *	
Age	**Male**	**Female**	**Male**	**Female**
50	0.114%	0.073%	2.400%	1.750%
55	0.164	0.118	2.600	1.875
60	0.300	0.254	2.800	2.000
65	0.596	0.468	3.000	2.125
70	1.095	0.864	3.054	2.331
75	1.886	1.451	4.972	3.334
80	3.772	2.759	7.285	4.477
85	7.619	5.596	9.797	8.367
90	14.212	11.702	17.639	14.007
95	22.860	17.780	27.005	20.992
	Select rates for disability:			
	First year of disablement		6.0%	3.5%
	Second year of disablement		4.8	3.0
	Third year of disablement		3.5	2.5

* *Future retirees and beneficiaries are valued with a 2-year age setback*

Table B.3
Service Retirement

	Only for the 1990 Benefit Structure		For the DB Program			
			Under 30 Years *		30 or More Years	
Age	Male	Female	Male	Female	Male	Female
50	0.0%	0.0%	0.0%	0.0%	1.5%	2.5%
51	0.0	0.0	0.0	0.0	1.5	2.5
52	0.0	0.0	0.0	0.0	1.5	2.5
53	0.0	0.0	0.0	0.0	2.0	2.5
54	1.5	1.5	0.0	0.0	2.0	3.0
55	5.8	7.0	2.7	4.5	8.0	9.0
56	3.9	4.5	1.8	3.2	8.0	9.0
57	4.9	4.5	1.8	3.2	10.0	11.0
58	6.8	7.0	2.7	4.1	14.0	16.0
59	17.5	14.0	4.5	5.4	18.0	19.0
60	25.0	22.0	6.3	9.0	27.0	31.0
61	16.5	15.0	6.3	9.0	47.5	47.5
62	16.5	15.0	10.8	10.8	42.5	45.0
63	15.0	15.0	11.7	16.2	35.0	40.0
64	17.5	18.0	10.8	13.5	30.0	35.0
65	20.0	18.0	13.5	14.4	32.5	37.5
66	16.0	18.0	10.8	13.5	30.0	32.0
67	16.0	18.0	10.8	13.5	30.0	32.0
68	16.0	16.0	10.8	13.5	30.0	32.0
69	16.0	16.0	10.8	13.5	30.0	32.0
70	100.0	100.0	10.8	13.5	30.0	35.0
71			10.8	13.5	30.0	35.0
72			10.8	13.5	30.0	35.0
73			10.8	13.5	30.0	35.0
74			10.8	13.5	30.0	35.0
75			100.0	100.0	100.0	100.0

* *If service is equal to or greater than 25 but less than 28 years, the assumed retirement rates shown above for members with less than 25 years of service are increased by 100%. For example, a 60-year old female member with 26 years of service would have an 18.0% probability of retirement (twice the rate for service less than 25 years of 9.0%). For members with 28 but less than 30 years of service, the assumed retirement rates shown above for members with less than 25 years of service apply.*

The assumptions shown above are for retirement from active status. We assume that all vested terminated members retire at age 60.

Table B.4
Disability Retirement

Coverage A

Age	Male	Female
25	0.018%	0.018%
30	0.027	0.027
35	0.045	0.054
40	0.072	0.081
45	0.099	0.099
50	0.144	0.198
55	0.189	0.252

Coverage B

Age	Male	Female
25	0.010%	0.020%
30	0.020	0.020
35	0.030	0.040
40	0.060	0.070
45	0.100	0.110
50	0.140	0.185
55	0.245	0.300
60	0.365	0.380
65	0.400	0.400
70	0.400	0.400

Table B.5
Withdrawal

Year	Male	Female
0	16.0%	15.0%
1	13.0	12.0
2	9.0	8.5
3	6.4	6.4
4	4.6	4.6
5	3.9	3.9
10	1.8	1.8
15	0.9	0.9
20	0.5	0.5
25	0.3	0.3
30	0.2	0.2

Table B.6
Probability of Refund

	Entry Ages - Male				
Year	**Under 25**	**25 - 29**	**30 - 34**	**35 - 39**	**40 and Up**
Under 5	100%	100%	100%	100%	100%
10	46	46	38	36	36
15	38	38	31	21	
20	28	31	15		
25	15	15			
30	10				

	Entry Ages - Female				
Year	**Under 25**	**25 - 29**	**30 - 34**	**35 - 39**	**40 and Up**
Under 5	100%	100%	100%	100%	100%
10	34	32	32	29	29
15	27	24	24	24	
20	19	14	14		
25	10	10			
30	10				

Table B.7
Merit Salary Increases

	Entry Age - Annual Increase in Salaries Due to Merit					
Year	Under 25	25 - 29	30 - 34	35 - 39	40 - 44	45 & up
1	5.6%	5.3%	5.1%	4.8%	4.8%	3.5%
2	5.6	5.1	4.9	4.7	4.7	3.3
3	5.6	5.0	4.8	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	1.3	1.1	1.1	0.8	0.8	0.6
25	1.1	0.9	0.8	0.5	0.5	
30	0.9	0.7	0.6	0.5		
35	0.8	0.7	0.6			
40	0.8	0.6				
45	0.8					

Table B.8
Supplemental Assumptions

Unused Sick Leave

Credited Service is increased by 2.0%.

Optional Forms

Active & Inactive: Based on single life annuity assumed.
Retirees and Beneficiaries: Based on optional form in data.

Probability of Marriage

Male: 90%
Female: 70%

Male spouses are assumed to be three years older than female spouses.

Number of Children

Married members are assumed to have the following number of children:

Member's Gender	Assumed Number of Children
Male	0.65
Female	0.50

Assumed Offsets

The following offsets, expressed as a percentage of Final Compensation, are assumed to cease at age 60:

	Coverage A		Coverage B	
	Male	Female	Male	Female
Death	2.0%	1.0%	0.0%	0.0%
Disability	2.0%	1.0%	1.0%	1.0%

Valuation of Inactive Members

Reliable salary and benefit information is not available for inactive members. Therefore, the Actuarial Obligation for inactive members is valued using individual contribution account balances as follows:

1) Projected Account balances at assumed retirement age of 60 are multiplied by 310%. Note this factor is based on a study of the relationship between individual accumulated contribution balances for inactive members and the Actuarial Obligation at actual retirement.

2) An additional load of 10% is applied to account for the potential redeposit of member contributions.

3) A reduction of 17% is applied to non-vested inactives.

Table B.9
Custom Mortality Table Key

CalSTRS Custom Mortality Tables

Healthy (Service) Retirees and Beneficiaries -- Males*	
Expected:	RP2000 Healthy Male -5 to age 70 smoothed to -2 at age 95
Proposed:	RP2000 Healthy Male White Collar -2 Projected to 2025 to age 70 smoothed to -1 at age 90

Healthy (Service) Retirees and Beneficiaries -- Females*	
Expected:	RP2000 Healthy Female -5/-1 adj from 75 to 90
Proposed:	RP2000 Healthy Female White Collar -4 Projected to 2025 to age 75 smoothed to -0 at age 90

Disabled Retirees -- Males*	
Expected:	RP2000 Male (minimum 2.5% with select rates in first three years)
Proposed:	Age < 70: 2% at age 40 & under, graded to 3.2% at age 70
	Age > 70: RP2000 Male White Collar +7 Projected to 2025 at age 70 smoothed to +1 age 85
	(select rates in first three years, regardless of age)

Disabled Retirees -- Females*	
Expected:	RP2000 Female (minimum 2.0% with select rates in first three years)
Proposed:	Age < 70: 1.5% at age 40 & Less graded to 2.25% at age 70
	Age > 70: RP2000 Female White Collar +6 Projected to 2025 at age 70 smoothed to +2 at age 80
	(select rates in first three years, regardless of age)

** Tables shown are for current retirees as of the valuation date. Future retirees and beneficiaries are valued with a 2-year setback.*

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Appendix C Valuation Data

The membership data for this actuarial valuation was supplied by CalSTRS. Although we did not audit this data, we compared the data for this and the prior valuation and tested for reasonableness, as well as for consistency with prior periodic reports from the CalSTRS staff. Based on these tests, we believe the data to be sufficiently accurate for the purposes of this valuation. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

Tables C.1-C.6 summarize the census data used in this valuation.

Table C.1
Summary of Statistical Information

	June 30, 2011	June 30, 2010
Number of Members		
Active Members [1]	429,600	441,544
Inactive Members [1]	173,719	166,976
Retirees and Beneficiaries		
Service Retirees	222,222	213,952
Disabled Retirees	8,813	8,581
Survivors	22,006	21,263
Total Benefit Recipients	253,041	243,796
Total Membership in Valuation	856,360	852,316
Active Member Statistics		
Earned Salaries	$ 25,576 million	$ 26,275 million
Average Salary	$ 59,534	$ 59,507
Average Age	45.3 years	45.1 years
Average Service	11.6 years	11.3 years

(1) Some active members were reported with no Earnable Salaries, in which case their liabilities, if any, were included with inactive members

Retired Member Statistics[2]	June 30, 2011	June 30, 2010
Average Age		
Service Retiree	72.3	72.2
Disabled Retiree	64.7	64.5
Survivors	76.6	76.4
All Benefit Recipients	72.3	72.2
Average Monthly Benefit		
Service Retirees	$ 3,417	$ 3,302
Disabled Retirees	2,360	2,295
Survivors	2,011	1,931
All Benefit Recipients	$ 3,277	$ 3,167

(2) Average retiree ages shown here are current ages; average retiree ages shown elsewhere in this Appendix are age at retirement.

Inactive Member Statistics	June 30, 2011	June 30, 2010
Average Age	46.8	46.7
Average Account Balance	$ 12,035	$ 12,334

Table C.2
Age and Service Distribution – Active Male Members

	Service					
Age	**Less than 1**	**1-5**	**6-10**	**11-15**	**16-20**	**21-25**
Less than 25	276	335	1			
25 to 30	1,076	5,317	321			
30 to 35	739	6,701	5,698	334	2	
35 to 40	531	4,164	6,342	6,194	139	2
40 to 45	491	3,220	4,350	7,759	3,482	113
45 to 50	397	2,374	2,860	4,378	3,745	2,293
50 to 55	322	2,166	2,352	3,165	2,570	3,311
55 to 60	313	1,938	2,162	2,655	2,102	2,652
60 to 65	222	1,577	1,640	2,013	1,531	1,556
65 to 70	103	811	667	641	452	413
70 and over	47	462	292	199	113	124
Age Unknown	1					
Total	4,518	29,065	26,685	27,338	14,136	10,464

	Service					
Age	**26-30**	**31-35**	**36-40**	**41-45**	**Over 45**	**Total**
Less than 25						612
25 to 30						6,714
30 to 35						13,474
35 to 40						17,372
40 to 45						19,415
45 to 50	98					16,145
50 to 55	1,802	106				15,794
55 to 60	2,274	2,323	154			16,573
60 to 65	1,056	1,396	881	22		11,894
65 to 70	248	193	187	77	4	3,796
70 and over	50	49	45	35	30	1,446
Age Unknown						1
Total	5,528	4,067	1,267	134	34	123,236

Table C.3
Age and Service Distribution – Active Female Members

	Service					
Age	**Less than 1**	**1-5**	**6-10**	**11-15**	**16-20**	**21-25**
Less than 25	1,112	1,273	1			
25 to 30	2,949	19,602	1,727			
30 to 35	1,522	17,560	20,268	1,455		
35 to 40	1,071	9,356	16,547	16,513	463	
40 to 45	1,035	7,958	10,225	15,794	7,690	378
45 to 50	787	6,409	7,330	9,426	7,350	5,862
50 to 55	725	5,593	6,692	8,567	6,271	6,843
55 to 60	488	4,164	5,354	8,060	6,256	6,596
60 to 65	255	2,447	3,198	4,907	4,112	4,635
65 to 70	105	953	948	1,294	1,003	1,025
70 and over	45	397	318	281	193	197
Age Unknown		1	2			
Total	10,094	75,713	72,610	66,297	33,338	25,536

	Service					
Age	**26-30**	**31-35**	**36-40**	**41-45**	**Over 45**	**Total**
Less than 25						2,386
25 to 30						24,278
30 to 35						40,805
35 to 40						43,950
40 to 45	1					43,081
45 to 50	315	2				37,481
50 to 55	4,293	331	2			39,317
55 to 60	4,838	4,883	290	1		40,930
60 to 65	2,538	2,416	1,221	44	1	25,774
65 to 70	592	364	177	107	13	6,581
70 and over	117	111	44	35	40	1,778
Age Unknown						3
Total	12,694	8,107	1,734	187	54	306,364

Table C.4
Age and Service Distribution – All Active Members

	Service					
Age	**Less than 1**	**1-5**	**6-10**	**11-15**	**16-20**	**21-25**
Less than 25	1,388	1,608	2			
25 to 30	4,025	24,919	2,048			
30 to 35	2,261	24,261	25,966	1,789	2	
35 to 40	1,602	13,520	22,889	22,707	602	2
40 to 45	1,526	11,178	14,575	23,553	11,172	491
45 to 50	1,184	8,783	10,190	13,804	11,095	8,155
50 to 55	1,047	7,759	9,044	11,732	8,841	10,154
55 to 60	801	6,102	7,516	10,715	8,358	9,248
60 to 65	477	4,024	4,838	6,920	5,643	6,191
65 to 70	208	1,764	1,615	1,935	1,455	1,438
70 and over	92	859	610	480	306	321
Age Unknown	1	1	2			
Total	14,612	104,778	99,295	93,635	47,474	36,000

	Service					
Age	**26-30**	**31-35**	**36-40**	**41-45**	**Over 45**	**Total**
Less than 25						2,998
25 to 30						30,992
30 to 35						54,279
35 to 40						61,322
40 to 45	1					62,496
45 to 50	413	2				53,626
50 to 55	6,095	437	2			55,111
55 to 60	7,112	7,206	444	1		57,503
60 to 65	3,594	3,812	2,102	66	1	37,668
65 to 70	840	557	364	184	17	10,377
70 and over	167	160	89	70	70	3,224
Age Unknown						4
Total	18,222	12,174	3,001	321	88	429,600

Table C.5
Inactive Members

Fiscal Year Ending June 30	Number Vested	Total Number	Male % of Total	Female % of Total
2000	16,211	75,580	27.8%	72.2%
2001	18,469	87,146	28.1	71.9
2002	19,703	96,159	28.0	72.0
2003	20,627	104,617	28.3	71.7
2004	22,511	116,128	28.7	71.3
2005	24,113	124,394	28.8	71.2
2006	26,733	133,601	28.8	71.2
2007	28,922	141,450	28.9	71.1
2008	30,370	147,997	29.0	71.0
2009	31,661	156,207	29.0	71.0
2010	33,036	166,976	29.2	70.8
2011	33,976	173,719	29.1	70.9

Fiscal Year Ending June 30	Average Account on Deposit	Average Age	Average Service Credit	Average Years Inactive
2000	$ 12,325	46.8	3.2	7.8
2001	12,889	50.7	3.2	8.2
2002	12,997	46.0	3.1	7.3
2003	12,691	46.0	3.0	7.4
2004	12,418	45.8	2.9	7.3
2005	12,177	45.9	2.9	7.4
2006	12,282	45.9	2.9	7.5
2007	12,440	46.0	3.0	7.7
2008	12,698	46.3	2.9	8.0
2009	12,717	46.5	2.9	8.2
2010	12,334	46.7	2.8	8.3
2011	12,035	46.8	2.8	8.6

Table C.6
Members Retired for Service

Fiscal Year Ending June 30	Total	Male % of Total	Female % of Total
2000	145,415	38.1%	61.9%
2001	149,727	38.0	62.0
2002	154,884	37.8	62.2
2003	159,172	37.6	62.4
2004	169,022	37.2	62.8
2005	176,008	36.9	63.1
2006	181,833	36.5	63.5
2007	188,659	36.1	63.9
2008	195,960	35.7	64.3
2009	203,649	35.3	64.7
2010	213,952	34.9	65.1
2011	222,222	34.4	65.6

Fiscal Year Ending June 30	Average Age at Retirement	Average Years of Service Credit	Final Average Compensation	Average Current Allowance Payable
2000	60.7	25.0	$ 3,175	$ 1,824
2001	60.7	25.4	3,356	2,033
2002	60.7	25.7	3,539	2,183
2003	60.7	25.9	3,735	2,339
2004	60.7	26.0	3,931	2,488
2005	60.8	26.1	4,103	2,617
2006	60.8	26.2	4,264	2,741
2007	60.8	26.3	4,437	2,878
2008	60.8	26.3	4,620	3,021
2009	60.8	26.4	4,798	3,164
2010	60.9	26.3	4,983	3,302
2011	61.0	26.3	5,138	3,417

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Appendix D Glossary

The following definitions are largely excerpts from a list adopted by the major actuarial organizations in the United States. In some cases, the definitions have been modified for specific applicability to the CalSTRS DB Program. Defined terms are capitalized throughout this Appendix.

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, and procedures used to determine 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 Equivalent
Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.

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.

Entry Age Cost Method	An Actuarial Cost Method under which the Actuarial Present Value of Projected Benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a Valuation Date by the Actuarial Present Value of future Normal Costs is called the Actuarial Obligation.
Normal Cost	The portion of the Actuarial Present Value of Projected Benefits which is allocated to a valuation year by the Actuarial Cost Method.
Unfunded Actuarial Obligation	The excess, if any, of the Actuarial Obligation over the Actuarial Value of Assets.
Valuation Date	June 30, 2011.

PROPOSED
RESOLUTION
OF THE
TEACHERS' RETIREMENT BOARD

SUBJECT: Adoption of June 30, 2011, Actuarial Valuation for the Defined Benefit Program

RESOLUTION NO. _____

WHEREAS, section 22311 of the Education Code requires a periodic actuarial valuation of the California State Teachers' Retirement System's assets and liabilities; and

WHEREAS, Milliman has performed the necessary actuarial calculations using the June 30, 2011 data provided by the California State Teachers' Retirement System; and

WHEREAS, Milliman has determined that the assets under section 22955(b) of the Education Code are less than the obligation under section 22955(b) of the Education Code; however a normal cost deficit under section 22955(c) of the Education Code does not exist; and

WHEREAS, Milliman, based on the accompanying Actuarial Valuation Report recommends that the supplemental appropriation under section 22955(b) be made by the State to the Teachers' Retirement Fund for the period October 1, 2012 through September 30, 2013; and

WHEREAS, the Teachers' Retirement Board has reviewed the June 30, 2011 Actuarial Valuation Report presented by Milliman; therefore, be it

RESOLVED that the Teachers' Retirement Board adopts the accompanying Actuarial Valuation Report from Milliman, and further

RESOLVED that the Teachers' Retirement Board finds and declares that there is an Unfunded Actuarial Obligation associated with the benefit plan as it existed as of July 1, 1990, however there is not a Normal Cost deficit associated with those benefits.

Adopted by:
Teachers' Retirement Board
on April 12, 2012

_____
JACK EHNES
Chief Executive Officer

Reviewed by:

_____
Brian J. Bartow
General Counsel

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PROPOSED
RESOLUTION
OF THE
TEACHERS'RETIREMENT BOARD

SUBJECT: Finding of Inadequate Funding in the Defined Benefit Program with Respect to Benefits in Effect as of June 30, 2011

RESOLUTION NO: _____

WHEREAS, the California State Teachers' Retirement System administers the Defined Benefit (DB) Program of the State Teachers' Retirement Plan; and

WHEREAS, the benefits provided under the DB Program are financed by contributions established
in the Education Code and paid by members of the DB Program, employers and the General Fund; and

WHEREAS, subdivision (b) of section 22955 of the Education Code makes continuous appropriations from the General Fund equal to 0.774 percent of the total creditable compensation of the fiscal year ending in the immediately preceding calendar year upon which members' contributions are based if, with respect to benefits in the DB Program in place as of July 1, 1990, there is either a normal cost deficit, as defined in subdivision (c) of section 22955, or an unfunded obligation in the DB Program; and

WHEREAS, Milliman has performed the necessary actuarial calculations using the June 30, 2011 data provided by the California State Teachers' Retirement System; and

WHEREAS, the actuarial valuation determined that the DB Program, with respect to benefits in effect as of July 1, 1990, had an unfunded obligation of $16.3 billion as of June 30, 2011;

WHEREAS, the Teachers' Retirement Board has reviewed and adopted the June 30, 2011 Actuarial Valuation Report presented by Milliman; therefore, be it

RESOLVED, that the Teachers' Retirement Board hereby finds and declares that there exist the necessary conditions provided for in subdivision (b) of Section 22955 of the Education Code to increase the General Fund appropriation during the 2012-13 fiscal year, on October 1, 2012, in an amount equal to 0.774 percent of the total creditable compensation of the fiscal year ending in the immediately preceding calendar year upon which members' contributions are based, and directs the Chief Executive Officer to formally notify the State Controller of the amount of the increased appropriation prior to October 1, 2012.

Adopted by:
Teachers' Retirement Board
on April 12, 2012

_____
Jack Ehnes
Chief Executive Officer

Reviewed by:

_____
Brian J. Bartow
General Counsel

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