



## **OVERVIEW**

### **CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM AND RELATED ISSUES**

**January 1, 2000**

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## **FOREWARD**

*The California State Teachers' Retirement System (CalSTRS) was created in 1913 to provide retirement benefits to California's public school educators. This edition provides an overview of the retirement system, including a summary of benefits currently provided to members, a history of the system, an explanation of system financing, a glossary of terms commonly used in the retirement system and a summary of system statistics. It is a source of information for questions that the reader may have from time to time on CalSTRS and retirement systems in general. In the event that the information in this publication conflicts with the actual statute, however, the statute takes precedence.*

## **CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM**

# OVERVIEW OF THE CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM AND RELATED ISSUES

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# DEFINED BENEFIT PROGRAM SUMMARY

January 1, 1999

## SERVICE RETIREMENT

### Eligibility Requirement

Age 60 with five years of credited service, which can include service teaching in an out-of-state public school.

### Benefit Formula

Two percent of final compensation for each year of credited service at age 60, increasing to 2.4 percent at age 63. For members with 30 or more years of credited service, an additional .2 percent of final compensation per year of credited service. The maximum benefit cannot exceed 2.4 percent.

### Final Compensation

Final compensation is the highest average salary earnable for any three consecutive years of credited California service.

### Exceptions:

For an eligible classroom teacher, final compensation may be the highest annual compensation earnable during any period of 12 consecutive months while a member of the program. This provision only applies to a qualified classroom teacher, as defined, who is employed by an employer who has entered into a written agreement with an exclusive representative to make this provision applicable.

Final compensation may be the highest average annual compensation earnable during ANY three "non-consecutive" years (one year is a period of 12 consecutive months) of membership in the program. This alternative is available ONLY to a member whose salary has been reduced because of a reduction in school funds.

### Minimum Guarantee

Specified retired members of the California State Teachers' Retirement System (CalSTRS), their option beneficiaries, and surviving spouses, receiving an allowance on January 1, 2000, will be guaranteed a minimum allowance based on the member's years of credited service. The total annual amount payable to the member generally will not be less than \$15,000 with 20 years of credited service, increasing incrementally to \$20,000 with 30 or more years of credited service.

### Internal Revenue Code Section 415

Benefits are subject to limits imposed under Internal Revenue Code (IRC) Section 415. Benefits in excess of the limit are payable from the Replacement Benefits Program.

### Early Retirement

Age 55 with five years credited California service.

A 1/2 percent reduction in the age factor for each full month or partial month the member is younger than age 60.

### 30 and Out

Age 50 with 30 years of credited service. The standard 1/2 percent reduction from age 60 to 55 and a 1/4 percent reduction for each full or partial month the member is younger than age 55 still applies.

### Limited Term Reduction

Age 55 and under age 60 with five years of credited California service. Under this alternative, a reduced allowance is paid equal to 1/2 the normal retirement allowance at age 60, based on the final compensation and service credit at the age of retirement. The reduced allowance continues until the amount paid after age 60 equals the amount paid prior to age 60. Thereafter, the age 60 normal retirement allowance would be paid.

## **Deferred Retirement**

Any time after satisfying the minimum service requirement, a member may cease active service, leave the accumulated retirement contributions on deposit, and later retire upon attaining the minimum age requirement and filing an application to retire. No formal election is required to defer retirement; however, a written application must be made to the System in order to retire.

## **Mandatory Retirement**

The System does NOT have any mandatory retirement provisions. However, federal law requires that a minimum distribution of retirement benefits begin no later than April 1 of the calendar year following the calendar year in which a member reaches age 70-1/2 if the member has not retired and is no longer performing creditable service subject to coverage by the program or is no longer employed in a position requiring or permitting membership in another California public retirement system. CalSTRS complies with the federal minimum distribution requirements.

## **Sick Leave Service Credit**

Service credit is granted for unused sick leave at the time of retirement.

## **Election of an Option**

Any member who is eligible for service retirement may make a pre-retirement election prior to the effective date of retirement to receive a modified joint and survivor allowance payable at retirement in place of the unmodified allowance. If the member dies prior to retirement, the option beneficiary will receive a lifetime allowance based on the option selected. This election is available for those members who are eligible for but do not wish to retire, but want to ensure a monthly lifetime income to a beneficiary in the event death occurs prior to retirement. However, the pre-retirement election makes the member ineligible for a family or survivor benefit allowance unless

the member cancels the option election prior to his or her death.

CalSTRS has 7 joint and survivor benefit options:

### Option 2:

*Joint and 100 percent to beneficiary:* Upon the retired member's death, the modified allowance will continue to be paid to the option beneficiary for life.

### Option 3:

*Joint and 50 percent to beneficiary.* Upon the retired member's death, one-half of the modified allowance will continue to be paid to the option beneficiary for life.

### Option 4:

*Joint and 66 2/3 percent to survivor:* Upon the death of either the retired member or the option beneficiary, two-thirds of the modified allowance will continue to be paid to the survivor for life.

### Option 5:

*Joint and 50 percent to survivor:* Upon the death of either the retired member or the option beneficiary, one-half of the modified allowance will continue to be paid to the survivor for life.

### Option 6:

*Joint and 100 percent to beneficiary with "Pop Up."* Upon the retired member's death, the modified allowance will continue to be paid to the option beneficiary for life. If the option beneficiary predeceases the retired member, the retired member's allowance will be raised or "pop up" to the unmodified allowance level.

### Option 7:

*Joint and 50 percent to beneficiary with "Pop Up."* Upon the retired member's death, one-half of the modified allowance will continue to be paid to the option beneficiary for life. If the option beneficiary predeceases the retired member, the retired member's allowance will pop up to the unmodified allowance level.

### Option 8:

*Multiple option beneficiaries.* Allows any member prior to the effective date of the member's retirement to designate multiple option beneficiaries. For each beneficiary designated, the member selects an option that would provide a modified retirement allowance payable throughout the life of the member and his or her option beneficiary.

## **Post-Retirement Adjustment**

### **Benefit Improvement Factor**

There is a two percent simple increase on each September 1 following the first anniversary of the effective date of the allowance (the date on which the monthly allowance began to accrue). The annual two percent increase is applied to ALL continuing allowances.

### **Supplemental Increase**

Revenue from the State General Fund and State School Lands restore purchasing power up to 75 percent of a benefit recipient's initial allowance. These supplemental payments are vested to the extent funds are available from the General Fund, with the General Fund providing an amount equal to 2.5% of the prior year payroll.

## **Post-Retirement Earnings Limitation**

CalSTRS has no limitation on earnings outside the California public school system. There is a fiscal year limitation on earnings from creditable service within the California public school system. The allowance of a member retired for service will be reduced by the amount of any earnings in excess of the limitation, up to a member's annual allowance amount. The initial earnings limitation of \$15,000 is increased each July 1 by 100 percent of the annual increase in the All Urban California Consumer Price Index, using December 1989 as the base. Effective July 1, 1999, the earnings limit was increased to \$19,050. (This differs from the earnings limitation imposed on disability allowances and disability retirement benefits. See the applicable section for a summary of those limitations.)

## **Death Benefit for Retired Members**

Designated beneficiaries of CalSTRS retired members receive a \$5,598 lump-sum death payment. The amount of the death payment may be adjusted by the Teachers' Retirement Board following each actuarial valuation based on changes to the All Urban California Consumer Price Index.

## **Social Security**

The CalSTRS Defined Benefit Program is not integrated with, coordinated with, or supplemented by the federal Social Security Program.

## **Termination of Membership**

After termination of employment, a member may request a refund of the contributions and interest credited to the member's account. A refund terminates membership in and all rights to future benefits from the Program.

## **Re-Entry into Plan After Refund**

Individuals who have received a refund, and who subsequently become members of the Program, may redeposit all contributions and interest previously refunded. In addition, regular interest from the date of the refund through the final date of payment must be paid in order to be credited with the related service. The member must, however, earn at least one year of credited service after re-entry before becoming eligible for any benefits from the Program.

## **Funding**

### **Teachers Contribution**

8 percent of creditable compensation.

### **Employers Contribution**

8 percent of the total of the creditable compensation on which member contributions are based.

plus

0.25 percent of creditable compensation to pay costs related to unused sick leave service credit

### **State Contribution**

The State's quarterly contribution to CalSTRS, commencing October 1, 1998, is set at 3.102 percent of the total of the creditable compensation of the prior calendar year upon which members' contributions are based.

plus

up to 1.5 percent of the total of the creditable compensation of the prior calendar year upon which members' contributions are based, which is contributed until the unfunded obligation and any

normal cost deficit for the benefits in effect on July 1, 1990 is eliminated. Currently no contributions are being made for this purpose.

## **DISABILITY ALLOWANCE - COVERAGE A**

### **Eligibility**

Age Limit: Under age 60.

### **Service Credit**

Minimum of five years.

### **Employment Status**

May apply for disability allowance while still employed.

### **Benefit Formula**

#### Allowance

50 percent of final compensation

or

5 percent of final compensation for each year of service credit if over age 45 with less than 10 years of service credit.

plus

#### Children's Benefits

10 percent of final compensation for each eligible dependent child, up to a maximum of 40 percent of final compensation. The increment for each eligible child continues until the child attains age 22.

### **Pre-Retirement Election of an Option**

Any member receiving a disability allowance who is eligible to retire may make a pre-retirement election to receive a modified joint and survivor allowance payable at retirement in place of the unmodified allowance. If the member dies prior to retirement, the option beneficiary will receive a lifetime allowance based on the option selected. The pre-retirement election makes the member's survivor ineligible for the family allowance unless the election is canceled prior to the member's death.

### **Offsets**

Allowance, including children's increments, will be reduced by an amount equal to any benefits payable under other public systems for the same disability.

### **Employment**

May be employed in a position to perform creditable service subject to coverage by the Program, or any other employment, subject to earnings limitations.

### **Earnings Limit**

In a single month, the disability allowance (less amounts payable for children) plus employment earnings may not exceed 100 percent of indexed final compensation.

or

For a six-month period, average earnings may not exceed 66-2/3 percent of indexed final compensation.

### **Conversion to Service Retirement**

An allowance is payable for duration of disability (unless the board limits the allowance to a 2-year period under specified circumstances) or until conversion to a service retirement allowance at age 60. A member's allowance is based on the projected final compensation and projected service to age 60; however, the service retirement allowance may not exceed the terminated disability allowance.

### **Death Benefit**

A \$5,598 lump-sum death payment is payable to the designated beneficiary upon the death of the disabled member. The amount of the death payment may be adjusted by the Teachers' Retirement Board following each actuarial valuation based on changes to the All Urban California Consumer Price Index.

plus

If the member has not elected a pre-retirement option, a family allowance is payable to the surviving spouse who has children eligible for a children's benefit.

or

If there are no eligible children, the spouse may elect to take a lump-sum refund of the contributions and interest remaining in the member's account or receive an Option 3 beneficiary allowance at age 60, or immediately with a reduction based on the member's and spouse's ages at the time the benefit begins.

## **DISABILITY RETIREMENT COVERAGE B**

### **Eligibility**

Age Limit: None.

### **Service Credit**

Minimum of five years.

### **Employment Status**

May apply for disability retirement while still employed.

### **Benefit Formula Allowance**

#### Allowance

50 percent of final compensation regardless of age and service credit.

plus

#### Children's Benefit

10 percent of final compensation for each eligible dependent child, up to a maximum of 40 percent of final compensation. The increment for each eligible child continues until the child attains age 21, regardless of student, marital or employment status.

### **Option Election**

A member may elect a joint and survivor option upon application for a disability retirement.

### **Offsets**

The allowance (less amounts payable for children) will be reduced by an amount equal to any benefit payable for the same disability under a Workers' Compensation program.

## **Employment**

A member may be employed to perform creditable service or any other employment but can not make contributions to the fund or accrue service credit based on earnings from any employment.

## **Earnings Limit**

There is a calendar year limitation on earnings from all employment. The allowance of a member retired for disability will be reduced by the amount of any earnings in excess of the limitation. The current limit is \$19,050, and is adjusted each July 1 by 100 percent of the annual increase in the All Urban California Consumer Price Index, using December 1989, as the base.

## **Conversion To Service Retirement**

No conversion; allowance is payable for the duration of the disability.

## **Death Benefit**

A \$5,598 lump-sum death payment is payable to the designated beneficiary upon the death of the disabled member. The amount of the death payment may be adjusted by the Teachers' Retirement Board following each actuarial valuation based on changes to the All Urban California Consumer Price Index.

plus

If an option was selected at the time of Disability Retirement, a lifetime allowance is payable to the option beneficiary.

or

If no option was selected, a lump-sum refund of the remaining contributions and interest in the member's account.

## **FAMILY ALLOWANCE-COVERAGE A**

### **Eligibility**

Member was actively employed or receiving a Disability Allowance at the time of death and had not elected a pre-retirement election of an option.



**Service Credit**

A minimum of one (1.000) year.

**Lump-Sum Death Payment**

A \$5,598 lump-sum death payment is payable to the designated beneficiary upon the death of the disabled member. The amount of the death payment may be adjusted by the Teachers' Retirement Board following each actuarial valuation based on changes to the All Urban California Consumer Price Index.

**Basic Benefit**

When there are eligible children, a family allowance will be paid. If there are no eligible children, the spouse may elect to receive an Option 3 beneficiary allowance at age 60 or immediately with a reduction based on the member's and spouse's ages at the time the benefit begins or take a lump-sum refund of the remaining contributions and interest in the member's account.

Surviving Spouse Eligibility

Married to the member for at least one year on the date of death.

Allowance

The surviving spouse with eligible children would receive 40 percent of the member's final compensation for as long as there is at least one eligible child. An additional 10 percent of final compensation is payable for each eligible child, up to a maximum benefit of 50 percent for the children's increment. To be eligible, dependent children must be unmarried and under age 22.

When there are no eligible children, the spouse may elect to receive an Option 3 beneficiary allowance or take a lump-sum refund of the remaining contributions and interest in the member's account.

If there is no surviving spouse, an allowance of 10 percent of the member's final compensation is payable for each eligible

child up to a maximum of 50 percent of final compensation.

If there is neither a surviving spouse nor a dependent child, the member's dependent parents may elect to receive an Option 3 beneficiary allowance at age 60 or over, or take a lump-sum refund of the remaining contributions and interest in the member's account.

**Contributions and Interest**

If there is no surviving spouse, eligible children, or dependent parent, the contributions and interest are paid to the designated beneficiary.

**SURVIVOR BENEFITS-COVERAGE B****Eligibility**

Member was actively employed at the time of death and had not elected a pre-retirement election of an option.

**Service Credit**

A minimum of one (1.000) year.

**Lump-Sum Death Payment**

A \$22,394 lump-sum death payment is payable to the designated beneficiary if the member had one or more years of credited service. The amount of the death payment may be adjusted by the Teachers' Retirement Board following each actuarial valuation based on changes to the All Urban California Consumer Price Index.

**Basic Benefit**

The surviving spouse may elect to receive a monthly allowance or take a lump-sum of the contributions and interest in the member's account.

Surviving Spouse Eligibility

Married to the member for at least one year on the date of death.

### Spousal Allowance

If the surviving spouse elects not to take a lump-sum refund of the contributions and interest in the member's account, the surviving spouse would receive one half of the member's Option 3 allowance, beginning on the member's 60th birthday, or immediately with a reduction based on the member's and spouse's age at the time the benefit begins. There is no dependent child requirement.

### Children's Allowance

If the surviving spouse elects a monthly allowance, an additional allowance is payable for each eligible dependent child equal to 10 percent of the member's final compensation, with a maximum benefit of 50 percent for five or more children. The benefit is dependent upon the spouse electing a monthly allowance. To be eligible, dependent children must be under age 21. Student, marital or employment status will not terminate the benefit.

If there is no surviving spouse, no children's benefits are payable.

### **Contributions and Interest**

If there is no surviving spouse, the contributions and interest in the member's account are paid to the member's designated beneficiary.

# CASH BALANCE BENEFIT PROGRAM SUMMARY

## January 1, 2000

### DESCRIPTION OF PROGRAM

The CalSTRS Cash Balance (CB) Benefit Program is a defined benefit plan that meets the requirements of the Internal Revenue Code. It is optional to school districts, community college districts or county offices of education as an alternative retirement plan. The CB Benefit Program is a primary retirement program for employees of California's public schools who are hired to perform creditable service for less than 50 percent of the full-time equivalent (FTE) for the position.

### Plan Eligibility Requirements

Employers may offer the CB Benefit Program to eligible employees. Employers must elect through formal school board action, exclusively, or in addition to other alternative plans, and/or Social Security.

When an employer first elects to offer the CB Benefit Program, employees employed to perform creditable service, and whose basis of employment (employees' formal contract) is less than 50 percent of the FTE for the position, become participants on the later of: (1) the first day in which creditable service is performed or (2) the effective date of the employer's governing board's action to provide the CB Benefit Program.

### Elections

A member of the Defined Benefit Program who otherwise is eligible to participate in the CB Benefit Program may elect to participate in the CB Benefit Program.

Employees have the right to elect coverage under either Social Security, or an alternative plan in lieu of the CB Benefit

Program if the employer's governing board's action provides for these options.

An election to participate in either Social Security or an alternative plan does not prevent an employee from electing to participate in the CB Benefit Program at a later date, as long as the CB Benefit Program is provided by the employer and the employee is eligible to participate in the program.

### Discontinued Eligibility

Employees shall cease contributing to the CB Benefit Program and become mandatory members of the CalSTRS Defined Benefit (DB) Program when the basis of employment (formal contract) changes to 50 percent or more of full-time for the position, OR upon election to the CalSTRS DB Program, which may occur at any time.

### Contributions

Each employer contributes a minimum of 4 percent of salary on behalf of each participating employee. Through the collective bargaining process, employers are permitted to pay different levels of employee and employer contributions, as long as the following conditions are met:

1. The sum of the employee and employer contributions equals or exceeds 8 percent of employee salary.
2. The employee contribution rate may exceed the employer contribution rate but in no event may the employer contribution rate be less than 4 percent.
3. The employee and employer contribution rates are the same for each participant employed by the employer.

4. The contribution rates as determined under the collective bargaining agreement become effective on the first day of the plan year and remain in effect for at least one plan year.

### **Vesting**

A participant has an immediate vested right to a retirement benefit, equal to the sum of the balance of contributions, including any compounded interest earned on his or her employee and employer accounts.

### **Guaranteed Interest Rate**

The CB Program has a guaranteed interest rate that is determined annually by the Teachers' Retirement Board (Board). The rate is based on the average of thirty-year U.S. Treasury notes for the period from May to April immediately preceding the plan year.

### **Program Investments**

The CB Benefit Program is a separate benefit structure within the State Teachers' Retirement Plan. CB Benefit Program contributions are invested at the direction of the Board in internally pooled portfolios of the Teacher's Retirement Fund. The CB Benefit Program has ownership of units of these pooled portfolios, which reflect market fluctuations of underlying securities on a daily basis. Units are purchased using the current market value per unit. Unitized funds are accounted for on a multiple class level, which entails the sharing of one portfolio by two or more owners. Income and portfolio level expenses are distributed to each class level on a pro rata basis determined by the amount of units owned as a percentage of the total units of the portfolio.

### **Gain and Loss Reserve**

Funds accumulate in a Gain and Loss Reserve to credit interest to participants' employee and employer accounts during

years when the rate of return on investments is less than the guaranteed interest rate. Annual additions to the Reserve are determined by the Board on earnings in excess of those needed to credit the guaranteed interest rate and pay administrative costs. The Gain and Loss Reserve will also be used to ensure adequate funds are available in the Annuitant Reserve, which is established to pay monthly annuity payments.

### **Additional Earnings Credit**

After the end of the plan year, when the total investment earnings for the immediately preceding plan year are known, the Board may declare an additional earnings credit. Any additional earnings credit will be applied to participants' employee and employer accounts, equal to a percentage of the balance of the accounts as of June 30 of that plan year.

### **Retirement Eligibility**

Normal retirement age is 60, and a participant may not retire earlier than age 55. To retire, a participant must terminate all creditable service in the CB Benefit Program and the DB Program, and apply for a retirement benefit. Distribution of a retirement benefit must begin by age 70 1/2, unless the participant continues to perform creditable service.

### **Early Withdrawals**

Both federal and California state tax codes provide for tax penalties for certain early withdrawals. A 10 percent federal and 6 percent state tax penalty may be assessed for early withdrawals, in addition to the normal tax liability.

### **Rollover**

Participants may be permitted to transfer funds from eligible retirement plans into the CB Benefit Program, as long as the

transfers are allowable under applicable federal and state income tax laws.

## **PROGRAM BENEFITS**

### **Retirement Benefit**

Normal retirement benefit is a lump-sum benefit equal to the balance of credits in participant's employee and employer accounts. All of the lump-sum payment may be eligible to roll over into an IRA, defined contribution (DC) plan, or other eligible retirement plan that accepts such a rollover.

or

Participant may choose one of the following five annuities, if participant's balance is \$3,500 or more: a single life annuity with a cash refund feature, a single life annuity without a cash refund feature, a 100 percent joint and survivor annuity, a 50 percent joint and survivor annuity, or a period certain annuity.

### **Reemployment after Retirement**

If a participant is employed to perform creditable service subsequent to commencing a monthly annuity:

*Within one year and prior to age 60.* The annuity will be terminated and a credit balance will be applied to the participant's account. The participant must reapply for subsequent retirement.

*After one year and age 60 or older.* The annuity will continue and new contributions will be credited to a new participant's account. The participant must apply for subsequent retirement on the basis of the new account.

### **Disability Eligibility**

A participant may apply for disability at any time. All creditable service subject to coverage by the CB Benefit and DB Programs must be terminated prior to the disability date. A disability benefit will become payable only upon determination by

the Board that the participant has a total and permanent disability.

### **Disability Benefit**

Normal distribution is a lump-sum benefit. The benefit amount is equal to the balance of contributions, interest and additional credits in participant's employee and employer accounts. There is also an annuity available in the same five retirement benefit options as long as participant's account balance is \$3,500 or more.

### **Death Benefit**

#### Death of Participant Prior to Retirement

Normal distribution is a lump-sum benefit. The sum of the balance of credits of the participant's employee and employer accounts is payable to the named beneficiary. If no valid beneficiary is designated, the lump-sum payment will be paid to the participant's estate.

#### Surviving Spouse

If a participant's surviving spouse is the only beneficiary to whom a death benefit is payable, the spouse may elect to receive the benefit in the form of an annuity, provided the sum of the balance of credits of the participant's employee and employer accounts equals or exceeds \$3,500. The surviving spouse may elect either a single life annuity, without a cash refund feature, or a period certain annuity.

#### Death of Participant Receiving Annuity

Benefit payable in accordance with form of annuity elected by participant.

### **Termination Benefit**

Upon termination of all creditable service subject to coverage by the plan, for any reason other than death, disability, or retirement, a participant may apply for a lump-sum termination benefit. The benefit amount is equal to the sum of the employee

and employer accounts, plus compounded interest as of the date the benefit is paid.

#### Waiting Period

The termination benefit is payable after one year has elapsed following the date of termination of employment. The application for the termination benefit will be automatically canceled if the participant performs creditable service within one year following the date of termination of employment.

#### Five-Year Rule

A participant may not apply for a termination benefit if less than five years has elapsed following the date that the most recent termination benefit was distributed to the participant.

**COMPARISON**  
**CalSTRS (DB PROGRAM) - CalPERS STATE EMPLOYEES - CalPERS CLASSIFIED SCHOOL EMPLOYEES**  
**(Tier I) - Non-Safety**

	<b>CalSTRS:</b>	<b>CalPERS: Classified School Members</b>	<b>CalPERS: State Miscellaneous (Non-safety) (Tier I)</b>
Eligibility for Membership	<ul style="list-style-type: none"> <li>- All certificated, charter school and community college faculty employees in public schools (K-14) whose basis of employment is 50% or more (mandatory membership)</li> <li>- Part-time and substitute certificated and faculty employees hired to work less than one-half time may elect to be a member</li> </ul>	<ul style="list-style-type: none"> <li>- Non-teaching, noncertificated school employees working one-half time or more</li> <li>- Part-time non-teaching employees working less than one-half time may <u>not</u> be a member</li> </ul>	<ul style="list-style-type: none"> <li>- Non-safety state employees working one-half time or more</li> <li>- Non-elected legislative employee</li> <li>- Employees working less than one-half time may <u>not</u> be a member</li> </ul>
Normal Retirement Age	60	60	60
Vesting Requirement for:			
- Service Retirement	5.000 years credited service Note: 30.000 years service credit required for retirement between ages 50-55	5.000 years credited service	5.000 years credited service
- Disability Retirement Allowance	5.000 years credited service or 1.000 year credited service or for disability resulting from a violent act perpetrated during the course of one's employment	5.000 years credited service 1.000 year credited service for disability resulting from a violent act perpetrated during the course of one's employment	5.000 years credited service

	<b>CalSTRS:</b>	<b>CalPERS: Classified School Members</b>	<b>CalPERS: State Miscellaneous (Non-safety) (Tier I)</b>
Survivor Benefits	1.000 year service credit	Benefits are payable based on whether or not the member was eligible for retirement at the time of death, e.g., at least age 50 with 5.000 years of service credit	
Basic Death Benefit	A lump-sum death payment of \$5,598 or \$22,394 is payable to the designated beneficiary(ies) of members who die before retirement and without pre-retirement option, depending on coverage. A lump-sum death payment \$5,598 to beneficiary(ies) of members dying after retirement or with pre-retirement election	The death benefit amount is graduated, with the full amount payable after six years of service credit.	\$5,000 plus 6 months' salary (50% of the earnable salary for the 12 months just before the member's death)
Benefit Formula Prior to Normal Retirement Age (Service Retirement)	1.10@ age 50 1.16@ age 51 1.22@ age 52 1.28@ age 53 1.34@ age 54 1.40@ age 55 1.52@ age 56 1.64@ age 57 1.76@ age 58 1.88@ age 59  Additional .2 with 30 or more years of service credit	1.100@ age 50 1.280@ age 51 1.460@ age 52 1.640@ age 53 1.820@ age 54 2.00@ age 55 2.064@ age 56 2.126@ age 57 2.188@ age 58 2.25@ age 59	1.100@ age 50 1.280@ age 51 1.460@ age 52 1.640@ age 53 1.820@ age 54 2.00@ age 55 2.064@ age 56 2.126@ age 57 2.188@ age 58 2.25@ age 59
Benefit Formula at Normal Retirement Age (Service Retirement)	2% @ 60 (2 x years of credited service x final compensation)  Additional .2 with 30 or more years of service credit	2.314% @ 60 (2.314 x years of credited service x final compensation)	2.314% @ 60 (2.314 x years of credited service x final compensation)



	<b>CalSTRS:</b>	<b>CalPERS: Classified School Members</b>	<b>CalPERS: State Miscellaneous (Non-safety) (Tier I)</b>
Age Formula (Factor) After Age 60 (Service Retirement)	2.133 @ age 61 2.267 @ age 62 2.400 @ age 63  Additional .2 with 30 or more years of credit, up to 2.4	2.376 @ age 61 2.438 @ age 62 2.5 @ age 63	2.376 @ age 61 2.438 @ age 62 2.5 @ age 63
Rule of 85	No	No	No
Final Compensation	Highest average annual compensation earnable for 3 consecutive years. Note: Districts can choose to provide final compensation averaged over 12 consecutive months	Highest average compensa- tion earnable for 12 consecutive months.	Highest average compensation earnable for 12 consecutive months
Disability Formula	50% of final compensation (some exceptions in Coverage A)	1.8% x years of credited ser- vice x final compensation Benefit may be improved to 33-1/3% for service credit between 10 and 18-1/2 years	1.8% x years of credited ser- vice x final compensation Benefit may be improved to 33-1/3% for service credit between 10 and 18-1/2 years
Automatic Cost-of Living Adjustment	Fixed 2% annual <u>simple</u>	Up to 2% annual <u>compounded</u>	Up to 2% annual <u>compounded</u>
Purchasing Power Adjustment	Up to 75%	Up to 75%	Up to 75%
Credit for Unused Sick Leave	Yes	Yes	Yes
Golden Handshake: 2 years Additional	Yes, if governing board adopted resolution prior Service Credit to 1/1/99	Yes	Yes

	<b>CalSTRS:</b>	<b>CalPERS: Classified School Members</b>	<b>CalPERS: State Miscellaneous (Non-safety) (Tier I)</b>
Health Benefits After Retirement	Provided only on a district-by-district basis. Districts may choose to provide PEMHCA coverage	Provided only on a district-by-district basis. Districts may choose to provide PEMHCA coverage	Yes (If a member retires within 120 days of separation of employment with the requisite 5, 10 or 20 year vesting requirement)
Purchase of Service Credit			
- Out-of-State Service	Yes	No	No
- Nonqualified	Yes	No	No
- Military	Yes	Yes	Yes
- Redeposit of Withdrawn Contributions	Yes	Yes	Yes
Miscellaneous Issues			
- Ability to Adjust Employer Contribution Rate	No	Yes	Yes
- Current Contribution Rates			
- Employee	8%	In Social Security, 7% of salary over \$133.33 No Social Security, 7% of salary	In Social Security, 5% of salary over \$513. No Social Security, 6% of salary over \$317.
- Employer	8.25%	Varies based on actuarial calculations (0% for 1998-99)	Varies based on actuarial calculations (1.491% for 1999-2000))
Member participation in Social Security	No	Yes	Yes

## HISTORY OF CalSTRS FUNDING AND BENEFITS

Chapter 694, Statutes of 1913 (AB 1263) established the Public School Teachers' Retirement Salary Fund was established by the California Legislature as a function of the State Board of Education, effective July 1, 1913. CalSTRS was created to provide California teachers with a secure financial future during their retirement years and also to provide an incentive for them to stay in teaching their entire working careers.

### FUNDING HISTORY

#### 1913

- When the retirement plan was founded in 1913, the California public school teachers were granted retirement service credit for the service they had performed prior to that date. No contributions were required from either teachers or employers for the retirement credit that was granted for service performed prior to the establishment of the System. This caused the retirement plan to have an unfunded obligation from the very beginning.
- Members were required to contribute \$12 per year.
- Employers made no contribution.
- State contributed 5 percent of the inheritance tax revenue for each fiscal year.

#### 1935

- Member contributions were increased to \$24 per year.
- Employers commenced a contribution of \$12 per year per employee.
- State continued to pay 5 percent of the inheritance tax.

#### 1944

- Member contribution changed to a percentage of salary depending on gender and age at 7/1/44 or later membership. The rate varied from 2.53 percent to 4.85 percent.

- Employer contribution rate continued at \$12 per year per employee.
- State's contribution rate was replaced by a pay-as-you-go funding mechanism. Under this approach, the State annually appropriated the amount needed over and above the current years' employer contribution to pay the pension portion of all allowances currently being paid.

#### 1950, 1951, and 1955

- Member contribution rates were increased in these years up to a range of 5.77 percent to 10.15 percent.
- Employer contributions remained unchanged.
- State pay-as-you-go funding remained unchanged.

#### 1956

- Member contributions were increased to a range of 9.53 percent to 13.52 percent.
- Employer contribution rate of \$12 per year per employee was augmented by a 3 percent of salary contribution to be used on a pay-as-you-go basis to pay for current benefits. (The 3 percent contribution was limited by the assessed valuation of the school district. Because salaries grew faster than the assessed valuation, the percentage of payroll declined year by year.)
- State's pay-as-you-go funding remained unchanged.

#### 1959

- Member contributions decreased to a range from 7.46 percent to 12.72 percent.
- Employer contributions remained unchanged.
- State's pay-as-you-go funding remained unchanged.

## 1962

- Member contribution rate decreased to a range from 6.13 percent to 11.86 percent.
- Employer contribution remained unchanged.
- State's pay-as-you-go funding remained unchanged.
- The unfunded actuarial obligation was up to \$3.6 billion.

## 1972 - E. Richard Barnes Act

- In 1970 estimates indicated that the State's pay-as-you-go annual appropriation would grow from \$71 million for fiscal year 1967-68 to \$245 million for 1979-80 and \$635 million in 1989-90. As the allowance rolls grew at an accelerating rate, it was believed that the System could not look forward with any certainty to continued receipt of the ever-increasing State appropriation. Legislation, effective July 1, 1972, established the E. Richard Barnes Act and radically changed the funding of CalSTRS to long-range reserve funding (pre-funded basis).
- Members' variable contribution rate, which was averaging 7.4 percent, was changed to a flat 8 percent of salary.
- Employer contribution rate was averaging 2 percent in 1971-72 because of the assessed valuation limitation. The contribution rate was changed to a matching 8 percent of salary level.
- It was anticipated that this 16 percent total employee-employer contribution would fund future service in the redesigned program. However, to obtain passage of the program, the employer contribution was graded-in from 3.2 percent in 1972-73 up to the full 8 percent in 1978-79. This alone reduced the System's long term income by \$1.8 billion.
- State's pay-as-you-go contribution was replaced with a level \$130 million per year

for 30 years to amortize the cost of benefits in force as of June 30, 1972. The cost of all prior service for current members was not funded and resulted in the System's unfunded actuarial obligation at that time.

- Another \$5 million for 30 years was added to the \$130 million to repay the CalSTRS reserves for a shortage in the 1971-72 State contribution.

## 1976

- Member contribution rate remained at 8 percent.
- Employer graded-in contribution rate remained unchanged.
- A \$9.3 million state appropriation was added to the \$135 million appropriation for a total \$144.3 million annual appropriation. This increase was specifically tied to an ad hoc benefit increase.

## 1979

- As part of a major education financing bill in 1979, the Legislature addressed the funding of the CalSTRS unfunded actuarial obligation, AB 8, by Assemblyman Leroy Greene. First, the State's limited term \$144.3 million annual appropriation was changed to a perpetual appropriation which was to be cumulatively increased or decreased beginning with the 1980-81 fiscal year by an amount which reflects the change in the California Consumer Price Index (CCPI) in the preceding fiscal year.
- The second component was an ever-increasing appropriation of \$10 million in 1980-81 graded-up to \$280 million in 1994-95. The \$280 million would then be indexed by the CCPI starting in 1994-95. Initially the new funding was to have been \$100 million commencing in 1980-81 with CCPI indexing beginning in the 1981-82 fiscal year. It was necessary, however, to change to the graded-in appropriation to obtain Legislative approval of the unfunded obligation funding.

- In 1990-91, AB 8 contributions totaled approximately \$475 million; \$275 million from the first component and an additional \$200 million from the second component. This represented approximately 4.6 percent of payroll at that time, however, future years' contributions were a declining percentage of payroll estimated to be just above 2 percent by fiscal year 2032-33.

#### 1980

- 0.307% paid directly to CalSTRS from the General Fund to fund an ad hoc benefit increase for pre-6-30-73 retirees. No sunset date on funding was established.

#### 1981

- 0.108% paid directly to CalSTRS from General Fund to fund an ad hoc benefit increase for pre-1-1-80 retirees. A funding sunset date 12-31-96 was established.

#### 1985

- Permanent funding of 0.25 percent was provided for unused sick leave. The General Fund appropriated the funds to the Teachers' Retirement Fund directly, in lieu of being contributed by the districts.

#### 1989

- A funding stream from the General Fund equal to 2.5 percent of prior year teacher payroll is established to provide for supplemental payments to maintain 68.2 percent of the purchasing power of allowances.

#### 1990

- Another "fix" was viewed as critical to stem the ever-growing unfunded actuarial obligation. When AB 8 was enacted in 1979 it was an attempt to improve the funding of CalSTRS, specifically a reduction in the unfunded actuarial obligation. CalSTRS, however, continued to operate with a normal cost deficit that was at 0.94 percent or approximately \$130 million in 1990. The normal cost deficit

had, for years, continued to roll new debt into the unfunded actuarial obligation.

- The CalSTRS consulting actuary in 1990 recommended the Board support legislation to change the indexing of the then AB 8 contributions from the CCPI to the ratio of total teacher payroll in the previous year's payroll. Projections conducted by the actuary at that time indicated that the AB 8 indexing to CCPI methodology would allow the unfunded actuarial obligation to grow without limit. If indexing were changed to teacher payroll, the unfunded actuarial obligation would continue to grow for about 25 years but at a slower rate, then begin to decline and be eliminated in about the 39th year.
- Calculations conducted in 1990 indicated a level 4.2 percent of prior teacher payroll would be sufficient to fund the unfunded actuarial obligation within a reasonable period - 45 years - and stem the normal cost deficit. Negotiations in the deliberation of the new indexing resulted in suspending all General Fund contributions for one year (1990-91); therefore, the General Fund contribution was increased to 4.3 percent to fund the additional liability without further extending the funding period.
- The Legislature passed and the Governor signed into law the Elder State Teachers' Retirement Full Funding Act to provide a General Fund appropriation of 4.3 percent of prior year payroll to fund first the normal cost deficit then any remaining unfunded actuarial obligation.

#### 1998

- In March of 1998, the CalSTRS actuary completed its actuarial valuation of the Retirement Fund and determined that the fund assets represented 97% of its liabilities. In addition, if the Board's assumptions were realized, the unfunded liability would be eliminated by June 30, 2000. Once the unfunded liability was eliminated, the 4.3%

of payroll used for this purpose would decline by .25% per year to fund any normal cost deficit, and would decline at that rate to 0% if there was no normal cost deficit. In addition, a .25% contribution rate by employers for unused sick leave and a rate of .307% of payroll paid by the General Fund for an ad hoc benefit would no longer be needed.

- As a result of this finding, an opportunity existed to use the General Fund money that had been appropriated to the Teachers' Retirement Fund for purposes of retiring the unfunded liability for improved benefits. Following an analysis of CalSTRS existing benefits and the benefits available to other retirement systems, the administration agreed to use a portion of the General Fund contribution for benefits which were designed to recruit and retain teachers to accommodate increased demands for teachers. Specifically, the administration agreed that 65% of the 4.3% of payroll could be applied for that purpose. In addition, the .25% of payroll that had been levied on employers for unused sick leave credit and the .307% of payroll to fund an ad hoc benefit would continue to assist in funding the new benefits.
- In addition to these changes, funding would continue from the General Fund to eliminate the current remaining unfunded liability in the fund. The actuary determined that the unfunded liability would be eliminated in 30 years, if the contribution for that purpose were reduced to .524% of payroll.
- AB 2804 enacted all the changes in the funding for the retirement fund agreed to by the administration. Specifically, an amount equal to 3.102% (65% of 4.3%, or 2.795%, plus .307%) is transferred each year from the General Fund to the Teachers' Retirement Fund to fund

increased benefits. The .25% contribution by employers also is continued to fund the conversion of unused sick leave to service credit for all employees. Finally, if there is an unfunded liability associated with the benefits in effect as of June 30, 1990, an additional amount, initially equal to .524% of payroll is transferred from the General Fund. Once that unfunded liability and the normal cost deficit attributable to benefits in effect as of 7/1/90 are eliminated, the transfer is eliminated. If the unfunded liability should return, a transfer from the General Fund is resumed, increasing at the rate of .25% of payroll per year, up to a maximum of 1.505% (4.3% less the 2.795% being used for benefits).

## **MEMBERSHIP**

All certificated public school teachers, teaching superintendents, "supervising executives, or educational administrators" automatically became members of the retirement system when it was first established.

## **BENEFIT STRUCTURE**

### 1913

- The initial retirement pension was \$500 per year, and was paid in quarterly installments of \$125.
- A teacher was required to have 30 years of teaching service--at least half of which, including the 10 years prior to retirement, was in California schools.
- Eligibility for disability benefits required 15 years of California teaching service and benefits were pro-rated for actual years of service.
- Survivor benefits were not provided under the original benefit structure.

### 1935

- Retirement benefits increased to \$600 a year.

### 1944

The first of several major redesigns to the System resulted from legislation passed in 1944:

- Disability benefits were improved and all retirees with 30 years of credited service were guaranteed a minimum retirement allowance of \$60 per month.
- Age 63 was established as the normal retirement age with specified reductions for early retirement starting at age 58.
- Vesting changed from 30 years to 10 years of service.

### 1950's

Benefits were broadened in the 1950's:

- Normal retirement age was dropped from 63 to 60, and the early retirement age from 58 to 55.
- First death benefit program established, with benefits fixed at one month's salary for every year of service (up to a maximum of six months salary/six years of service).
- In **1953** the minimum retirement allowance was raised from \$60 to \$170 per month (for those who retired at age 60 or older with 30 years of credited service).
- 

The second major redesign occurred in **1956**:

- Benefits were now calculated based on a fixed percentage (1.667 percent) of final compensation for each year of credited service rather than on accumulated earnings. The new calculation method tied benefits to changing economic conditions (final compensation) and not fixed-dollar values (amount of accumulated contributions).

- In **1958**, vesting was reduced from 10 years to its present five-year minimum.

- In **1959**, the first Survivor Benefits program to provide continuing benefits for the dependent children and spouses of deceased members was established.

### 1960's

- No benefit increases were implemented. However, significant administrative efficiencies were accomplished. The first CalSTRS tax-sheltered annuity program was created in 1963.

### 1970's

- Benefit rolls grew at a rapid pace, but benefit values fell and CalSTRS was faced with a \$3.6 billion accrued liability. Dramatic change was needed, and the E. Richard Barnes Act was established.

- The Barnes Act established the basic benefit structure as summarized below.

- Benefit formula: 2 percent of final compensation at age 60.
- \$2,000 lump sum death benefit.
- Family Allowance program.
- Disability benefit: 50 percent of final compensation.
- 2 percent simple cost-of-living-adjustment.

- In **1979**, an ad hoc benefit increase was provided for members who retired prior to 6/30/73.

### 1980's

- The minimum unmodified allowance was provided to guarantee no less than \$16/month for each year of service credit for pre-1-1-81 retirees.

- In **1981**, a minimum unmodified allowance was provided to guarantee no less than \$18/month for each year of service credit for pre-1-1-82 retirees.

## 1986

- Convert to unisex option factors

## 1989

- A funding stream for 68.2% purchasing power benefits was established.

## 1992

- CalSTRS' Disability and Survivor Benefits programs were restructured to comply with the federal Older Workers Benefit Protection Act (also known as "Betts"):

### Survivor Benefits

Lump Sum Death Benefit (Coverage A): A \$5,000 lump sum death payment, to be increased following each biennial actuarial valuation based on changes in the All Urban California Consumer Price Index.

Survivor Benefit (Coverage B): A \$20,000 lump sum death payment upon the death of an active member, to be increased following each biennial actuarial valuation based on changes in the All Urban California Consumer Price Index.

- In addition to a \$5,000 lump sum death payment, the surviving spouse may receive either a monthly allowance or a return of the member's contributions plus interest.

### Disability Allowance (Coverage A):

Member who qualifies for a disability allowance receives the allowance as long as the disability exists up to age 60. At age 60, the allowance is terminated and the member is eligible to apply for service retirement. A disability allowance may continue beyond age 60 only if there are eligible children and the member remains disabled.

Disability Retirement (Coverage B): Is applicable to all DB Program members hired on and after October 16, 1992. A member

who qualifies for a disability retirement allowance is considered retired and receives the allowance as long as the disability remains, without respect to age. Upon return to full-time employment or if the member is found to be no longer disabled, the allowance is stopped and the member is reinstated to active status.

## 1997 and 1998

- The level of purchasing power protection was increased to 75%.
- The age factor in the retirement benefit formula for members who retired on or after January 1, 1999 was increased to a maximum of 2.4% at age 63. In addition, members with 30 or more years of credited service received an increase of .2% in the formula, up to the maximum age factor of 2.4%.
- Members retiring on or after January 1, 1999 could convert their unused sick leave to service credit when retiring, regardless of when they became members.
- Members who taught in a public school in another state or territory were allowed to purchase up to 10 years of service associated with that prior service, beginning in 1999. In addition, vested members can buy up to 5 years of additional credit, without regard to any prior service.

## 1999

- The minimum allowance for members who retired prior to January 1, 2000 was increased to \$15,000 per year with 20 years of credited service, increasing annually to \$20,000 with 30 years of credited service.
- CalSTRS is required to develop a program to provide health care benefits to members and the beneficiaries, children, and parents, as specified.



## GENERAL FUND CONTRIBUTIONS TO CalSTRS

Education Code Section 22955 provides that the General Fund contribute 3.102 percent of the creditable compensation of the immediately preceding calendar year upon which members' contributions are based. This continuous appropriation is calculated annually on October 1, and deposited quarterly into the Teachers' Retirement Fund (TRF) to finance the 1998 legislated benefit increases payable under the Defined Benefit Program. An additional .524 percent of calendar year payroll is transferred to the TRF to amortize the unfunded actuarial obligation and to eliminate any normal cost deficit attributable to benefits in effect as of July 1, 1990. The normal cost deficit is the difference between the normal cost rate and member and employer contributions, which equal 16.25 percent of creditable compensation. Based on the most recent actuarial valuation, as of June 30, 1998, the normal cost rate is 15.76 percent of covered payroll. Consequently, there is no normal cost deficit at this time.

In October, the CalSTRS Accounting Office obtains the creditable earnings from the monthly reports of retirement contributions submitted by employers to the Reporting section at CalSTRS. Accounting totals the prior calendar year and the current calendar year payrolls and provides this information to the CalSTRS Budget Office. The Budget Officer then shares both totals with the Department of Finance (DOF) Analyst.

The DOF Analyst then estimates the amount to be appropriated to the TRF for inclusion in the Governor's budget and adjusts the previous calendar year's total.

A May revision is completed due to the fact that the additional data are available. The

DOF Analyst makes a final adjustment based on the additional payroll data.

In June, the Budget Officer prepares a "Transfer Of Funds" letter to the State Controller's Office (SCO). The DOF directs the SCO to transfer the funds to the TRF regardless of whether or not the budget has been signed. The SCO will deposit funds into the TRF quarterly.

The Accounting Office works with the SCO to follow-up to ensure that the transfers are made. A final adjustment is made immediately prior to the October 1 transfer since complete data are then available.

## SUPPLEMENTAL PAYMENTS

### **Purchasing Power**

Inflation can significantly deteriorate a person's ability to maintain a consistent standard of living after retirement. Inflation is generally measured by changes in the average prices of selected goods and services. As inflation rises, the value of money decreases because it purchases fewer goods and services. A decline in the purchasing power of money is another way to define inflation.

The higher the rate of inflation, the greater the drop in the purchasing power of money. For example, if wages remain the same but prices double, the current purchasing power of wages is only 50% of the purchasing power of those same wages prior to the price increases. In this situation, wages must double to maintain the same purchasing power.

The California State Teachers' Retirement System (CalSTRS) measures the purchasing power level of allowances by the change in the All Urban California Consumer Price Index (CCPI) published by the Department of Industrial Relations, Bureau of Labor Statistics. The cumulative change in the CCPI from each year in which benefits have become effective since 1955 is displayed in Attachment A.

### **2% Simple Benefit Adjustment** (Education Code Sections 22140, 22141 and 24402)

The CalSTRS Defined Benefit Program provides an automatic 2% simple benefit adjustment to allowances payable to all benefit recipients to provide some protection against the effects of inflation. This annual "benefit improvement factor" is applied September 1 of each year following the first anniversary of the effective date of the benefit.

There are two other sources of funds that provide additional purchasing power protection for CalSTRS benefit recipients through "supplemental benefit payments". These are School Lands Revenue and the Supplemental Benefit Maintenance Account (SBMA). Supplemental

benefit payments are made quarterly from these funds on October 1st, January 1st, April 1st and July 1st. It is important to remember that these payments are not guaranteed and will continue only as long as funds are available.

### **School Lands Revenue** (Education Code Sections 24412 and 24413)

The goal of the state and the Teachers' Retirement Board is to raise the level of purchasing power of CalSTRS allowances to a minimum of 75% of the purchasing power of the initial allowance. In an attempt to meet this goal, revenue generated from the use of State School Lands (land granted to California by the federal government to support schools) and Lieu Lands (properties purchased with the proceeds from the sale of school lands) during the prior year is transferred to CalSTRS each year for the purpose of providing annual supplemental benefit payments in quarterly installments.

This revenue is distributed on a pro-rata basis to all benefit recipients whose initial allowances have fallen below the 75% purchasing power level. Because the revenue from School Lands does not generate enough income to bring the purchasing power of all CalSTRS allowances to at least 75%, the available revenue is distributed on a proportional basis to all eligible benefit recipients. The amount of the School Lands payment for each benefit recipient depends on the: (1) amount of money available from School Lands that year; (2) number of benefit recipients whose allowance purchasing power is below 75%; and (3) increase in the CCPI.

For example, if School Lands revenue is only sufficient to provide 5% of the amount needed to bring all allowances up to a minimum of 75% of the purchasing power of the initial allowance, each eligible benefit recipient will receive from School Lands revenue 5% of the amount needed to restore their purchasing power to 75%.

In 1999-2000, School Lands revenue is providing only 1.4% of the amount needed to restore the purchasing power of allowances payable to all benefit recipients to a minimum of 75%. Therefore, each eligible benefit recipient receives a supplemental benefit payment paid from School Lands revenue equal to 1.4% of the amount necessary to raise the purchasing power of the allowance to 75%.

Since School Lands revenue for 1999-2000 is not sufficient to raise the purchasing power of each CalSTRS allowance to a minimum of 75% of the purchasing power of the initial allowance, the SBMA is used to increase the purchasing power of each allowance to a minimum of 75% of the purchasing power of the initial allowance.

### **Supplemental Benefit Maintenance Account**

An amount equal to 2.5 percent of the prior year covered CalSTRS' member payroll is transferred each year from the State of California General Fund to the Supplemental Benefit Maintenance Account (SBMA) in the Teachers' Retirement Fund. The SBMA provides annual supplemental benefit payments in quarterly installments to all benefit recipients whose purchasing power has fallen below 75% of the purchasing power of the initial allowance, as long as funds are available.

Both the School Lands revenue and Supplemental Benefit Maintenance Account provide authority to make supplemental payments sufficient to bring purchasing power up to 75% of the purchasing power of the original allowance, and, the funding from the General Fund equal to 2.5 percent of payroll is guaranteed. The 75% level of supplemental payments, however, is not vested. This means that if the combined funding from both sources is not sufficient to bring purchasing power up to the 75% level, supplemental allowances may have to be paid at a lower level. However, it is anticipated that the funding for a 75% supplemental payment will be available well into the twenty first century.

The amount of the supplemental benefit payment for each benefit recipient depends on: 1) the extent to which the benefit recipient's allowance has fallen below 75% of the purchasing power of the initial allowance; and (2) the amount of the supplemental benefit payment provided from School Lands Revenue.

### **Estimation of Supplemental Benefit Payments**

A benefit recipient can estimate his or her supplemental benefit payments. It is first necessary to calculate the purchasing power of the current CalSTRS allowance. This may be accomplished by using the following information:

**Initial Allowance** (identified by "Initial Date/Allow" on the Remittance Advice/Check stub just below the Social Security Number)

**Benefit Effective Date** (identified by "Initial Date/Allow" on the Remittance Advice/Check stub just below the Social Security Number)

**Current Allowance** (identified by "Total Gross Allowance" before any deductions for taxes, insurance or receivables); **and**

**Changes in the California Consumer Price Index (CCPI)** is determined by dividing the CCPI for June of 1999 by the CCPI for June of the calendar year of retirement. (See Attachment A to obtain the CCPI factors from 1955-1999.)

### **Purchasing Power Percentage of the Current Allowance**

The example will use the following data to calculate the current purchasing power percentage:

Initial Allowance:	\$1,000
Benefit Effective Date:	July 1, 1975
Current Allowance:	\$1,480.00
CCPI Factor:	3.227

In this example, the benefit effective year is 1975, and the corresponding CCPI factor

is 3.227. Change in CCPI is determined by dividing the CCPI for June of 1999 by the CCPI for June of the calendar year of retirement. The purchasing power of the current allowance is determined as follows:

A. Obtain the CCPI Factor for the benefit effective year: 3.227

B. Multiply the initial allowance by the CCPI Factor to obtain the **Fully Adjusted Allowance**. This is what the current allowance amount would be if it had been adjusted to keep pace with inflation since the Benefit Effective Date.

$$\$1,000 \times 3.227 = \$3,227.00$$

C. Divide the Current Allowance by the Fully Adjusted Allowance to calculate the **Current Purchasing Power Percentage**.

$$\$1,480.00 / \$3,227 = 45.86\%$$

**Note:** If the Current Purchasing Power Allowance percentage is greater than 75%, no supplemental benefit payments will be received.

### **Total Quarterly Supplemental Payment**

The total supplemental payment is determined as follows:

A. Multiply the fully Adjusted Allowance by .75 to calculate the 75% **Purchasing Power Amount** equal to 75% of the initial allowance. (Includes both School Lands and SBMA)

$$\$3,227.00 \times .75 = \$2,420.25$$

B. Subtract the Current Allowance from the 75% Purchasing Power Amount to determine the **Supplemental Monthly Benefit Amount**, the monthly payment amount that would be needed to restore the purchasing power allowance to the 75% level.

$$\$2,420.25 - \$1,480.00 = \$940.25$$

C. Multiply monthly payment amount by three (3) months to determine the Total Quarterly Supplemental Payment.

$$\$899.50 \times 3 = \$2,820.75$$

### **Funding Components of the Supplemental Benefit Payments**

The funding components of the Supplemental Payments are the portion from School Lands Revenue and the portion from the SBMA.

A. Supplemental Payment - School Lands Revenue (75% Purchasing Power)

The portion of the supplemental payment that is derived from School Lands Revenue is calculated as follows:

In 1999-2000, School Lands revenue is providing only 1.4% of the amount needed to restore purchasing power of the allowances payable to all eligible benefit recipients to 75% of the purchasing power of the initial allowance. Multiply the Total Quarterly Supplemental Payment by 1.4% to calculate the School Lands revenue quarterly component.

$$\$2,820.75 \times 1.4\% (.014) = \$39.49$$

**Note:** This benefit recipient would receive an amount equal to \$39.49 per quarter from School Lands revenue in 1999-2000. The actual amount payable to each eligible benefit recipient will differ.

B. Supplemental Payment - SBMA (75% Purchasing Power)

The portion of the supplemental benefit payment derived from the SBMA is calculated as follows:

Subtract the School Lands quarterly amount from the **75% Purchasing Power Amount** to obtain the quarterly payment amount that would be needed to restore the allowance purchasing power level to 75%.

$$\$2,820.75 - \$39.49 = \$2,781.26$$

## Estimation Worksheet

### ■ Current Allowance Purchasing Power Percentage

1.  $\frac{\text{Initial Allowance Monthly Amount}}{\text{CCPI Factor: June of the Benefit Effective Year}} = \text{Fully Adjusted Allowance (a)}$
2.  $\frac{\text{Current Allowance Monthly Amount}}{\text{Fully Adjusted Allowance (a)}} = \text{Current Purchasing Power Percentage (Must be less than 75\% to proceed)}$

### ■ Total Supplemental Benefit Payment

1.  $\frac{\text{Fully Adjusted Allowance (a)}}{\text{Purchasing Power Percentage}} = \text{Total Purchasing Power Amount}$
2.  $\frac{\text{Total Purchasing Power Amount}}{\text{Currently Allowance Monthly Amount}} = \text{Supplemental Benefit Monthly Amount}$
3.  $\frac{\text{Supplemental Benefit Monthly Amount}}{\text{Number of months in a quarter of a year}} = \text{Total Quarterly Supplemental Payment (b)}$

### ■ Funding Components of Supplemental Benefit Payments

#### School Lands Component (75% Purchasing Power)

**Note:** The amount available from School Lands to raise purchasing power to 75% in the current year is 1.4%. The percentage available to raise purchasing power to 75% will vary from year to year.

$$\frac{\text{Total Quarterly Supplemental Payment (b)}}{\text{Percentage available for 75\% Purchasing Power}} = \text{School Lands Quarterly Component (c)}$$

#### SBMA Component (75% Purchasing Power)

$$\frac{\text{Total Quarterly Supplemental Payment (b)}}{\text{School Lands Quarterly Component (c)}} = \text{SBMA Quarterly Component (d)}$$

**Factors for Calculating 1998/99 Purchasing Power - All Urban California Consumer Price Index**

**Attachment A**

<u>Year</u>	<u>June CCPI</u>	<u>Purchasing Power Factor</u>
	25.7	6.529
1955	26.2	6.404
1956	27.1	6.191
1957	28.1	5.971
1958	28.5	5.887
1959	29.1	5.766
1960	29.5	5.688
1961	30.0	5.593
1962	30.2	5.556
1963	30.8	5.448
1964	31.6	5.310
1965	32.1	5.227
1966	32.9	5.100
1967	34.3	4.892
1968	36.0	4.661
1969	37.9	4.427
1970	39.4	4.258
1971	40.5	4.143
1972	42.7	3.929
1973	47.1	3.562
1974	52.0	3.226
1975	55.2	3.039
1976	59.5	2.820
1977	64.6	2.597
1978	71.0	2.363
1979	83.3	2.014
1980	90.1	1.862
1981	98.5	1.703
1982	99.1	1.693
1983	103.6	1.619
1984	108.4	1.547
1985	112.2	1.495
1986	116.3	1.442
1987	121.7	1.378
1988	128.2	1.308
1989	134.3	1.249
1990	140.1	1.197
1991	145.2	1.155
1992	148.9	1.126
1993	150.7	1.113
1994	154.2	1.088
1995	156.6	1.071
1996	160.0	1.048
1997	163.6	1.025
1998	167.8	1.000
1999		

The Purchasing Power Factor is obtained by dividing the CCPI for June of 1998 by the CCPI for June of the calendar year of retirement.

## **STATUS OF THE SCHOOL LAND BANK FUND (Prepared by State Lands Commission staff in 1996)**

### **Background**

Upon achieving statehood, the federal government granted approximately 5.5 million acres of land to California to be used for the support of schools. This land consisted of the sixteenth and thirty-sixth section of each township. Approximately 90 percent of the school lands have been sold. Proceeds were used primarily to pay for school construction. In 1984, the California Legislature directed that school lands be retained and managed by the State Lands Commission to generate revenue to provide cost-of-living increases for retired teachers.

The school lands are difficult to manage because they are broken up into non-contiguous, square-mile parcels. The Legislature found that "consolidation of school land parcels into contiguous holdings is essential to sound and effective management" (Section 8702 of the Public Resources Code). Consequently, the Legislature authorized the State Lands Commission to sell school lands and use the funds from the sales to purchase real property that will generate additional revenues to benefit California's retired teachers. Proceeds from sales are required to be held in trust by the Commission for the teachers and are deposited in the School Land Bank Fund (SLBF).

### **School Land Bank Fund Balance**

The SLBF has accumulated over \$33.4 million. The Commission has made no purchases of land to date for three reasons:

- The Commission school lands staff has been required to respond to the

California Desert Protection Act (CDPA) which was passed by Congress in 1994 (Public Law 103-433). The CDPA will eventually involve sale or exchange of 266,000 acres of school lands which are located in the newly designated desert wilderness area.

- The SLBF has only recently reached the funding level necessary to acquire property which is appropriately sized for management. Purchase of smaller properties would not fulfill the legislative mandate to consolidate school lands for management efficiency.
- Staff continues to believe that having a larger capital base will provide for more flexibility in pursuing a sound investment strategy. Following the passage of the CDPA the strategy to increase the size of the SLBF was discussed and supported by the staff of the State Teachers' Retirement System and representatives of the California Retired Teachers Association.

### **Anticipated Growth in SLBF Balance**

Implementation of the CDPA will drastically increase the amount in the SLBF. School lands within the desert wilderness areas are valued at approximately \$44 million. While some of this land will be exchanged for federal land, significant portions will be purchased by the federal government, leading to increases in the SLBF balance. The first CDPA transaction, approved by the Commission in February 1996, brought close to \$1 million into the SLBF.

## **Commission Procedures for SLBF Purchases**

As the SLBF balance reaches an amount which will allow the Commission to carry out its legislative mandate to consolidate and improve the overall management of school lands, the Commission intends to proceed expeditiously with land acquisitions using the procedures and criteria previously adopted by the SLC. Consolidation in the desert wilderness area is likely to occur as well through exchange of school lands for federal property.



# SALE OF ELK HILLS NAVAL PETROLEUM RESERVE #1

## What is Elk Hills?

- School lands that were granted by the Federal Government when California entered the Union in 1850.
- One of three naval petroleum reserves set up by the Government before World War I.
- Sits on 47,000 acres located 28 miles west of Bakersfield, California.
- Produces 60,000 barrels of oil and 390 million cubic feet of natural gas each day.
- Holds 600 million barrels of oil and 1.9 trillion cubic feet of natural gas in reserve.
- Chapter 68, Statutes of 1996 (SJR 27, Costa) memorialized the President and the Congress of the U.S. to sell the Elk Hills Naval Petroleum Reserve Number 1 while recognizing the States valid claim to two school land sections within the Reserve, and to compensate the State's retired teachers for their interest.

## What is CalSTRS' interest in Elk Hills?

- The State of California (State) and Federal Government had 78% interest in this Reserve (school lands), and the remaining 22% of the Reserve was owned by Chevron Corporation in San Francisco.
- CalSTRS sold their 9% interest of the net proceeds to benefit the State's retired teachers.

## What are the terms of the sale?

- Occidental Petroleum purchased the Reserve October 6, 1997 for \$3.65 billion (*an all-cash deal*); Occidental will sell their interest in MidCon for \$3 billion, of which \$2 billion will fund the Reserve acquisition. Expenses of the sale are estimated at \$50 million; the deadline for the close of the sale was February 10, 1998, as mandated.
- A settlement agreement was reached between the State, the U.S. Department of Energy (DoE) and Occidental Petroleum to ensure the State's interests are properly protected in the event Congress fails to appropriate all installments due to the State, which would result in the State renouncing its 9% settlement with DoE and suing Occidental Petroleum for the State's claim.
- This agreement was subject to:
  - 1) A Justice Department antitrust review.
  - 2) Completion of the environmental impact assessment process.
  - 3) A 31-day Congressional review period.

The State should receive, in each of the Federal Government's fiscal years (FFY) the 1st through September 30th), approximately \$324 million payable to the Teachers' Retirement Fund in seven annual installments under the terms of the settlement (due by the later of the 180th day of the fiscal year or 60 days after the funds are appropriated by Congress and become

available) between the State and DoE as follows:

FFY	
1999	\$36 million (appropriated)
2000	\$36 million
2001	\$36 million
2002	\$36 million
2003	\$36 million
2004	\$36 million
2005	\$36 million

The \$324 million has been set aside in an escrow account for California as Congress directed.

- CalSTRS role is to:
  - 1) ensure that these appropriations for the settlement payments are included in the President's budget that he submits to Congress in January of each year prior to the year that the payments are due (the Secretary of Energy, is contractually obligated to request this from the President); and
  - 2) pursue efforts to gain attention from members of the House Appropriations Committee to strongly push to ensure that the appropriation for the annual installments of the State's compensation claim moves through the House and Senate.

### **How does the sale benefit retired teachers?**

- As directed by the California Legislature, school lands revenue supports "purchasing power" protection for retired teachers. The increase in school land revenue attributable to the sale of the reserve permitted an increase in purchasing power protection. This increase was authorized in Chapter 939, Statutes of 1997 (SB 1026, Schiff), which provides purchasing power protection of up to 75% of a retired member's purchasing power from the 2.5% annual General Fund contribution for as long as it could support that level of funding.

### **What is the current status of the sales proceeds?**

The Federal government has collected the \$3.65 billion sales proceeds from Occidental and stands to save an estimated \$84 million (direct operational savings that have simply evaporated from the budget baseline) in FY 1999. The Defense Authorization Act requires that 9% of the sales proceeds be held in an escrow account for use in paying the State's claim. However, from Congress' standpoint, the compensation payment is being treated as a new spending program that must compete for funds along with other existing programs. The agreed upon funding was approved for the 1999 fiscal year, after a last minute agreement to put the funding in the federal omnibus appropriations bill, and for the 2000 fiscal year, although actual payment of the fiscal year 2000 funds was delayed until the beginning of the following fiscal year.

# A REVIEW OF ACTUARIAL PRINCIPLES AND THE VALUATION PROCESS

Prepared by  
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for the  
Teachers' Retirement Board

February 5, 1998

The California State Teachers' Retirement System (CalSTRS) has its actuary prepare an actuarial valuation as of June 30 of each odd-numbered year. Historically, this valuation has only been concerned with the Defined Benefit (DB) plan administered by CalSTRS. For the June 30, 1997 valuation, however, the Cash Balance (CB) plan was also be subject to an actuarial valuation.

Since there tends to be a lot of confusion and mystery surrounding actuarial results and valuation reports, the intent of this discussion is to try to make the process and the results more meaningful and useful. While most of the discussion will focus on the much larger DB Plan, these issues and concepts are generally equally applicable to the CB Plan.

## Actuarial Liabilities

Actuarial liabilities are created by a promise to pay a specified benefit if certain events occur or certain conditions are met. Actuarial liabilities are not the same thing as accounting liabilities. For an accounting liability, the only question is generally "when". For an actuarial liability, on the other hand, the question is not only "when", but also "if", and "how much". Actuarial liabilities are therefore said to be "contingent". This means they are dependent upon one of several possible events occurring.

To evaluate the potential actuarial liabilities, the actuary must make three estimates:

- if a benefit will start
- when that benefit will begin, and
- what the benefit amount will be

Money is paid out of the retirement system if one of four events occur: death, termination, disability or retirement.

The amount of any benefit that is to be paid generally depends upon both current and future service and on the extent of future pay increases.

While the system is waiting to pay the benefit, it invests its funds and it earns investment income to supplement contributions that are made by teachers, their employers and the state. To evaluate the plan's potential liabilities, the actuary studies the system's experience and recommends certain assumptions to the Board. The assumptions are split between demographic (or non-economic) assumptions and economic assumptions.

There are four demographic assumptions for active members: death, termination, disability, and retirement. For retired members and survivors the only assumption is the likelihood of death. For disabled members, the demographic assumption covers both death and recovery from disability.

There are also four economic assumptions. These are the assumed inflation rate, the salary scale, the investment return assumption, and the payroll growth rate.

### **The Concept of Actuarial Cost**

Over the long term, the employers' cost of the plan is going to be equal to the difference between the sum of benefits, refunds, and expenses paid out over the sum of employee contributions and investment earnings. The greater the investment earnings for the plan, the less the employers will need to contribute over the long run. By contrast, the poorer the investment performance, the more the employers will need to contribute. Because of this relationship between the level of investment earnings and employer contributions, it is said that the employer bears the investment risk under a defined benefit plan.

In order to properly pre-fund a defined benefit plan, it is necessary to determine the appropriate incidence of employer and state contributions to be made to the plan. This is the function of an actuarial cost method. The goal of an actuarial cost method is to produce a pattern of contributions that is equitable to successive generations of members and taxpayers.

There are two components to the actuarial cost of an existing benefit structure or from adding a benefit enhancement. These are the "normal cost" and the amortization charge for funding the unfunded actuarial obligation. (The unfunded actuarial obligation shall be referred to as either the "unfunded liability" or the "UAAL" which is the more common manner of referring to the unfunded actuarial obligation.) The number of years that it will take the current contribution schedule to fully amortize the unfunded liability is referred to as the plan's "funding period".

The normal cost may be thought of as the on-going cost of the plan, if there were no unfunded liability. It is the annual cost for the

benefits that will be earned by the average new entrant over his/her career, if the actuarial assumptions are exactly met and if there is no change in the benefit level.

The amortization charge for the UAAL is the annual rate that this unfunded liability is being paid off, or "funded".

The technical definition of the UAAL depends on the specific actuarial cost method utilized in the valuation. Different cost methods assign different parts of the total actuarial liability for all future benefits to past years (the actuarial accrued liability), to the current year (the normal cost), and the future years (future normal cost). In a way, this is similar to the existence of different inventory evaluation methods in accounting (for example, LIFO or FIFO).

Different actuarial cost methods spread the incidence of actuarial cost in different ways. One approach is to spread cost on the basis of the benefit formula itself (the projected credit unit method). Another approach spreads the incidence of cost on a level dollar basis. Others spread the cost on a level percentage of payroll basis. There is even one method (the aggregate valuation method) that does not create any unfunded liability at all.

CalSTRS uses the entry age actuarial cost method for valuing the DB Plan. This is the most common method used for public plans. Its popularity is due to the fact that it spreads the cost as a level percentage of pay, and therefore it does the best job of creating equitable treatment among successive generations of taxpayers.

### **Unfunded Liability**

The unfunded liability is calculated as the actuarial present value of all future benefits less the actuarial present value of all future normal costs less the current actuarial value of assets. The resulting unfunded liability may

either be positive (underfunded) or negative (overfunded).

The unfunded liability is not an accounting liability. It is also not the actuarial liability if the plan is terminated or frozen.

The unfunded liability is the actuarial liability associated with prior years under the entry age cost method, assuming that the plan will continue into the future. It reflects expected future pay increases for current members and expected future service for those members.

There are a number of reasons why a retirement system like the CalSTRS DB Plan can have an unfunded liability. As is the situation in CalSTRS' case, a part of the unfunded liability is due to those years in which the full actuarial cost was not contributed, i.e., the years before Elder Full Funding.

Unfunded liability can also be created by plan improvements such as increases in the multiplier and retiree benefit increases. Actuarial gains and losses will also impact the unfunded liability. Gains and losses represent the difference between the actual experience of the plan and the plan's assumed experience. The most dramatic example of actuarial gains during 1995, 1996, and 1997 has been the very favorable investment performance achieved by the plan.

Changes in actuarial assumptions and/or methods also impact the unfunded liability. Such was the case for CalSTRS as a result of the last experience study.

It is important to remember that the creation of an unfunded liability is a natural by-product of the entry age methodology. Whenever benefit improvements are granted, the entry age method will cause an increase in the UAAL.

There is nothing wrong or bad about having an unfunded liability. What is

important is whether or not the plan is making systematic progress in amortizing that unfunded liability over a reasonable period of time. There is also nothing wrong with a benefit enhancement that increases the unfunded liability, as long as that benefit enhancement is properly funded to begin with.

If, however, the trustees see a consistent pattern of actuarial experience losses from one year to the next, they should have their actuary perform an experience study to determine whether or not the current assumptions need adjustment.

In addition, if they see a consistent pattern of deterioration in the funded level of the plan, they need to begin an education process to alert the legislature and plan members to the potential dangers of underfunding the plan. The creation of Elder Full Funding is an example of this course of action.

### **Actuarial Assumptions**

Because of the long time horizon of a DB Plan, actuarial assumptions are necessary. The actuary's role is to study and recommend actuarial assumptions. The trustees then accept, reject, or modify those recommendations. This action represents a fiduciary decision on the part of the trustees.

If the trustees and the actuary are too optimistic in establishing the assumptions, the long-term ability of the plan to meet its emerging liabilities may be impaired. Consider two examples:

In the first example, let's say that the trustees assume that the plan will earn 9.5%, but in reality the plan only averages 8% in investment return. The true value of the liabilities will be greater than what is being assumed in the actuarial valuation process since the actual return is less than expected. This means that more money will be required to pay the benefits than planned on. Therefore,

over the long-term the system may have problems paying its benefits in the future.

As a second example, let's say that the Board sets retirement rates to assume that members will retire on average at age 63. In reality, let's say that they actually retire at age 60. While the benefit may be less for retirement at age 60 than at age 63, it is payable for more years into the future. In addition, and maybe even more significantly, the plan has lost three years of contributions that it was counting on receiving.

Since the setting of the assumptions is so critical, the following discussion outlines the nature and impact of each major assumption.

### **Mortality Assumptions**

The active member mortality assumption is not a major actuarial assumption as it relates to the size of the actuarial liabilities. This may be illustrated by comparing the size of the active member mortality rates versus the withdrawal and retirement rates. It is also illustrated by the size of the active-member death benefit liability compared to the retirement benefit liability. The 1995 valuation of CalSTRS showed the following present value of future benefits for active member death benefits versus retirement benefits (\$ millions).

<b>Type of Benefit</b>	<b>Active Member</b>	<b>Retired Members</b>
Active member death benefits	\$722	\$150
Present value of future retirement benefits for current active members	\$57,765	\$25,266

In contrast to the active member mortality assumption, retired member mortality is a major assumption in determining the overall actuarial condition of the plan. The

longer the life expectancy in retirement, the longer benefits will be paid. From the plan's viewpoint, favorable experience would occur if there are more deaths among retirees than expected. This is because not as many benefits are being paid out as anticipated being paid out. Therefore the unfunded liability will not grow as fast as assumed.

### **Rates of Disability**

As with the active member mortality assumption, the assumption as to rates of disability is not a major actuarial assumption. Again this may be seen by comparing the size of the disability rates versus the size of the withdrawal and retirement rates. Using the 1995 valuation results, the relative importance of the benefit is seen if the present value of future benefits for future disabilities is compared to the present value of future retirement benefits:

<b>Type of</b>	<b>Active Benefit Member</b>
Disabled	\$ 1,371
Retired	\$57,765

In general, fewer disabilities than expected would be viewed as favorable experience. If actual experience exhibits fewer disabilities than expected, then not as many disability benefits will be paid out as anticipated by the unfunded liability.

### **Withdrawal Rates**

The assumption as to withdrawal rates is a major actuarial assumption. It determines the likelihood of members staying in service to draw a retirement benefit. Favorable experience relative to withdrawal rates would be more terminations than expected by the assumptions. If there are more terminations, there will not be as many retirement benefits actually paid as expected and the benefits that are paid will not be as large as expected.

For CalSTRS, the withdrawal rates are a function of both age and service. This type

of structure of assumptions is known as "select and ultimate rates". This structure reflects the fact that both age and service affect the likelihood of staying in active employment.

### **Retirement Rates**

The assumption as to retirement rates is also a major actuarial assumption in the valuation process. This assumption determines when the retirement benefits are expected to become payable. Favorable experience would occur if there are fewer retirements than expected. In this scenario, CalSTRS has its funds longer than expected, it gets its contributions longer than expected, and it pays out benefits for fewer years than expected.

### **Disabled Life Mortality**

The mortality assumption for disabled lives is not a major actuarial assumption. This is due to the size of disabled life liabilities compared to retired life liabilities.

Favorable experience would occur if there are more deaths or recoveries than expected by the assumption. This would mean that not as many disability benefits are being paid out relative to the assumed pay out.

### **Inflation Assumption**

The inflation assumption is a key economic assumption. It is not, however, affected by CalSTRS experience.

The importance of this assumption is that it links the assets and the liabilities. This is because it is a component of both the salary scale and the investment return assumption. The current CalSTRS assumption for inflation is 4.5%.

### **Salary Scale Assumption**

The salary scale assumption is a major assumption from an actuarial standpoint. It

determines the amount of the expected benefits to be paid by CalSTRS.

Favorable experience occurs when salaries go up slower than expected, producing smaller actual benefits than anticipated by the actuarial calculations. Salary gains have been common in many state retirement systems over the last few years.

There are three components to the salary scale. The first component is inflation. The second component is the productivity component. This component measures how much general salary increases exceed inflation. This is over and above any age- or service-related salary increases.

The final component of the salary scale is the promotional component. For CalSTRS it is a function of both age and service. It reflects increases in the salary schedule that occur due to an additional year of service or experience. It also reflects the adjustment that occurs in salary for additional degrees or for promotions.

Currently, the salary scale for CalSTRS includes the inflation component of 4.50%, a productivity component of 1.00%, and a promotional component that is a function of age and service.

### **Investment Return Assumption**

The investment return assumption is the most visible actuarial assumption and, needless to say, it is a major assumption. It determines the discounted value of future benefits, and it determines how fast assets are expected to accumulate through the investment process.

It should come as no surprise to state that favorable experience relative to this assumption occurs when the invested assets earn a higher rate of return than expected. This would be illustrated by the investment performance that has been achieved during the plan years ending in 1995, 1996 and 1997. When the results of the 1997 actuarial

valuation are presented in March, those results will be dominated by the impact of this favorable investment experience.

There are two components to the investment return assumption. Like the salary scale assumption, the first component is inflation. This component is not affected by the plan's asset allocation. The second component is the real rate of return net of investment expenses. This assumption is affected by asset allocation, market forces, and manager performance.

The current investment return assumption for CalSTRS is 8%. This is the most common rate used by large public plans. Since the inflation component is 4.50%, this means that the current real rate of return assumption is 3.50%, net of investment expenses.

If the inflation component is changed and there is no change in the expected real rate of return, the amount of the change will be equal to the change in the inflation assumption. If, on the other hand, the inflation component is changed but there is no change in the total (nominal) investment return assumption, this implies that there has been an increase in the assumed real rate of return. The increase in the assumed real rate of return will equal the decrease in the inflation assumption.

Because of the common inflation component in these two assumptions, changes in the salary scale and the investment return assumptions should be viewed together to evaluate their reasonableness. The linkage of these two elements may be analyzed in an asset/liability modeling study.

## **The Actuarial Valuation**

The primary purpose of the actuarial valuation for the CalSTRS DB Plan is to determine the adequacy of the current contribution structure. This adequacy is

measured in terms of the funding period. There are, however, several other purposes of the valuation. These include:

- Tracing the change in the funding period from the last valuation to the current valuation.
- Calculating the actuarial gains and losses for the two-year period between valuations.
- Providing a biennial snapshot of the status of the plan.

For the new Cash Balance Plan, the valuation process will evaluate how the plan net assets match-up with the sum of the nominal account balances, the Gain and Loss Reserve, and any Annuitant Reserve. It will also determine how to allocate that year's investment earnings among minimum interest credits, additional earnings credits, additional annuity credits, and the Gain and Loss Reserve.

As with everything the CalSTRS actuary does, all results in these valuations are based on the assumptions and methods adopted by the Board.

A great deal of information is derived from the valuation report. As noted above, the primary focus of the DB valuation is to determine the funding period for amortizing the unfunded liability, based on the current contribution schedule.

The valuation will also provide information on any assets and/or liability gains or losses, the size of the unfunded liability itself, the plan's current funded status, an estimate of investment returns based on the actuarial value of assets, numerous member statistics, and the external cash flow during the two-year period.



## **How to View and Interpret Valuation Results**

A number of issues contribute to the perception that actuarial concepts are difficult to understand. These include the long-term nature of the actuarial liabilities themselves. It also reflects the large number of actuarial variables that are present in the valuation. Yet another complicating feature is the existence of complex benefit provisions.

The valuation report contains a multitude of numbers and amounts. In trying to understand the significance of the valuation, readers of the report should not just focus on the numbers in isolation.

In order to understand the meaning of the valuation results, it is helpful to put the actuarial results in perspective by looking at trends and comparisons:

- Is the funded ratio changing from year to year? If so, is it increasing or decreasing from one valuation to the next?
- Is the unfunded liability growing or declining as a percent of payroll? The unfunded liability may be increasing in total dollar amount simply because the active membership is growing. By looking at it relative to payroll, it is possible to evaluate whether or not the unfunded liability is growing faster or slower than the system as a whole.
- It is important to observe any pattern of actuarial gains or losses from one valuation to the next. If there are changes in the unfunded liability, can those changes be explained by benefit enhancements or by changes in assumptions?
- Is the funding period increasing or decreasing from one valuation to the next?

These are the types of reviews and analysis that the actuary performs when evaluating the valuation results.

## **Concluding Remarks**

While the technical meaning of the numbers and terms can be very imposing in an actuarial valuation, it is possible to gain understanding by focusing more on trends and patterns rather than the individual numbers themselves.

# **THE BASICS OF PENSION FUNDING**

## **(or Everything You Ever Wanted to Know about Actuarial Calculations but Were Afraid to Ask)**

By Sharon Peake Bronzwaer  
Consulting Actuary, Watson-Wyatt Worldwide

Determining the annual funding requirements for both private and public pension plans is one of the pension actuary's primary roles. If you have worked with pension plans, and therefore with actuaries, you may be familiar with some of the concepts of pension funding, such as assumptions, present values and funding methods. How much you understand these concepts and the funding process depends a great deal on how good your actuary is at communicating these seemingly difficult concepts to you. This chapter attempts to explain the process actuaries use to determine the funding requirements of pension plans.

The ultimate cost of a defined benefit pension plan can be expressed in this simple equation:

$$\text{Total Cost} = \text{Benefits Paid} + \text{Expenses Paid} - \text{Interest Earned}$$

The primary source of plan cost is benefits, as the purpose of a pension plan is to provide benefits to participants. In addition, the plan sponsor may incur some expenses in administering the plan. Finally, money put into the plan before it actually is paid as benefits or expenses may earn interest. If the money is invested in stocks, bonds, or real estate, those investments may appreciate in value. The combination of benefits and expenses, offset by investment earnings, make up the total plan cost to the sponsor.

A plan sponsor may choose to pay benefits and expenses when they become due.

This is referred to pay-as-you-go financing. In this case, the interest portion of the equation shown above is zero. That is, there are no earnings or appreciation to offset the benefit costs and expenses of the plan.

Most plan sponsors prefer to "prefund" their plans. A desirable funding arrangement has these advantages:

- The interest portion of the equation shown above reduces the ultimate cost of the plan. By prefunding, investment earnings reduce the amount that must be contributed later. Also, the timing of the prefunding affects the total cost of the plan to the sponsor. If you fund at high levels early on, the interest offset to the costs will be greater and will reduce the ultimate cost of the plan to the sponsor.
- Prefunding allows for an employer to pay for participants' benefits while they are being earned, during active employment. One goal of prefunding is to have enough money in the fund to pay a participant's benefit at the time he or she becomes eligible to receive it.
- Prefunding results in relatively predictable costs to the plan sponsor, in comparison to pay-as-you-go financing. The methods of prefunding, which will be discussed later, are designed with this result in mind.

The actuary's role in this process is to assist the plan sponsor in determining the appropriate amount of prefunding for the plan. To this, we use a combination of

**Facts, Assumptions and Methods** to arrive at a funding schedule.

The process we use to determine the appropriate funding amount can be divided into four steps:

### Step One

First we try to project:

- *Who* will receive a benefit from the plan,
- *When* the benefit payments will begin,
- *How much* the benefit will be, and
- *How long* the benefits will be paid.

To do this, we take each participant of the plan, and try to anticipate what may happen to him or her in the future in order to answer the who, when, how much, and how long questions. We use a combination of **Facts and Assumptions** to do this.

In each year of every active participant's future, there is a chance that he or she will:

- continue to work
- terminate employment
- retire
- die while employed
- become disabled while employed

In actuarial calculations, these chances are called probabilities, and we use **Assumptions** as to these probabilities to answer the questions "*who?*" and "*when?*" These assumptions usually are based on the past experience of the plan participants, if the group is large enough to use as a guide. Also, the assumptions should reflect the plan sponsor's expectations for the future.

Corresponding to each of these possible events is a benefit amount that would be paid if the event occurred. So, next we try to answer the question "*how much?*" by using a combination of Facts and Assumptions. The Facts are the plan provisions, such as the benefit formula and the eligibility requirements.

The Assumptions are our estimates of things like pay increases and cost-of-living increases, to help us determine how much benefit will be paid in each situation. Pay increase and cost-of-living assumptions usually are based on a combination of past experience and expectations for the future, with primary emphasis put on expectations for the further.

The last question to answer in this process is "*how long?*" We need to project the probable period in which benefits will be paid to those participants eligible to receive them. Here again we use a combination of **Facts and Assumptions**. The **Facts** are plan provisions, such as:

- optional forms of payment
- cost-of-living adjustments
- refunds of participant contributions

The **Assumptions** used can include:

- the probability of death after benefits begin
- the probability a participant is married
- the amount of future cost-of-living increases

For participants or their beneficiaries who already are receiving benefits from the plan at the date of calculation, we already have the answers to "*who?*", "*when?*" and "*how much?*" We still need to answer "*how long?*" using the same process as for active participants.

We now have a pretty good picture of our expectations of future benefit payments from the plan for current participants.

### Step Two

The next step is to determine how much money we would have to invest today in order to have enough money to pay all of these benefits in the future. To do this, we need to use another one of our **Assumptions** regarding what annual rate of return this money would earn if we did invest it today in order to pay all future benefits. The benefit payments we have

projected can last for as long as 60 or 70 years in the future, so our rate-of-return assumption must reflect our expectations for that period. One step is to study the historical rates of return of investment portfolios similar to the plan's. In addition, we must factor in our expectations for the future, including any expected changes in the portfolio makeup. We also make an **Assumption** about expenses that will be paid from the plan. This might be a separate, explicit **Assumption**, or it may be reflected in our choice of a rate-of-return assumption.

Once we have our rate-of-return assumption, we use it to determine the Present Value of all the future benefits we have projected. To do this, we discount the future benefit payment stream back to today, similar to the way your mortgage payments can be discounted back to arrive at the amount you borrowed to purchase your home. This amount represents the current benefit liability of the plan.

### Step Three

The next step is to decide how we want to fund this present value. One option is to contribute the full Present Value right now. If we did that, and if all of the **Assumptions** we made turned out to be correct, and if all the **Facts** we used never changed, we would never have to put any more money in the plan for the current group or participants. This option rarely is used. Also, it does not fulfil the requirement for a funding method that benefits be funded while employees earn them.

The more common approach is to spread this Present Value amount over the working lifetime of participants in the form of annual contributions. If all **Assumptions** turn out to be correct and no **Facts** are changed, there will be sufficient money in the fund due to these annual contributions and the interest they earn to pay the benefits for all participants at the time they begin to receive them. There are a number of ways to spread this cost, and here is where our actuarial **Methods** come in.

There are a number of accepted funding methods used by actuaries. Some of the more common include:

*The Entry Age Normal Funding Method:* This method spreads the funding of each participant's benefits over his or her working lifetime, from entry age to benefit commencement age. A portion of the cost is assigned to each year of the participant's career. For pay-related plans, the contributions are designed to be a level percent of the participant's payroll over the participant's career. For non-pay-related plans, the contributions are designed to a level dollar amount. The total plan cost is the sum of the costs determined for each individual participant.

*The Unit Credit Funding Method:* These methods spread the cost of benefits for each participant over the participant's working lifetime, like the Entry Age Normal method, but they define each year's cost as the present value of the benefit received in that year. Because the present value of a benefit increases as the participant gets closer to receiving it, these methods result in increasing contributions over time for each active participant, both as a dollar amount and as a percent of pay. The Traditional Unit Credit Cost Method commonly is used for non-pay-related plans or career average type plans, while the Projected Unit Credit method commonly is used for final pay plans. Again, total plan cost equals the sum of the costs for each individual participant.

These two funding methods are the ones most commonly used by pension plans. In a recent survey of both public and private pension plans with more than 1,000 participants, more than 90% of pension plans used one of these methods. Other methods include the Aggregate Method, the Attained Age Normal Method, and the Frozen Initial Liability Method.

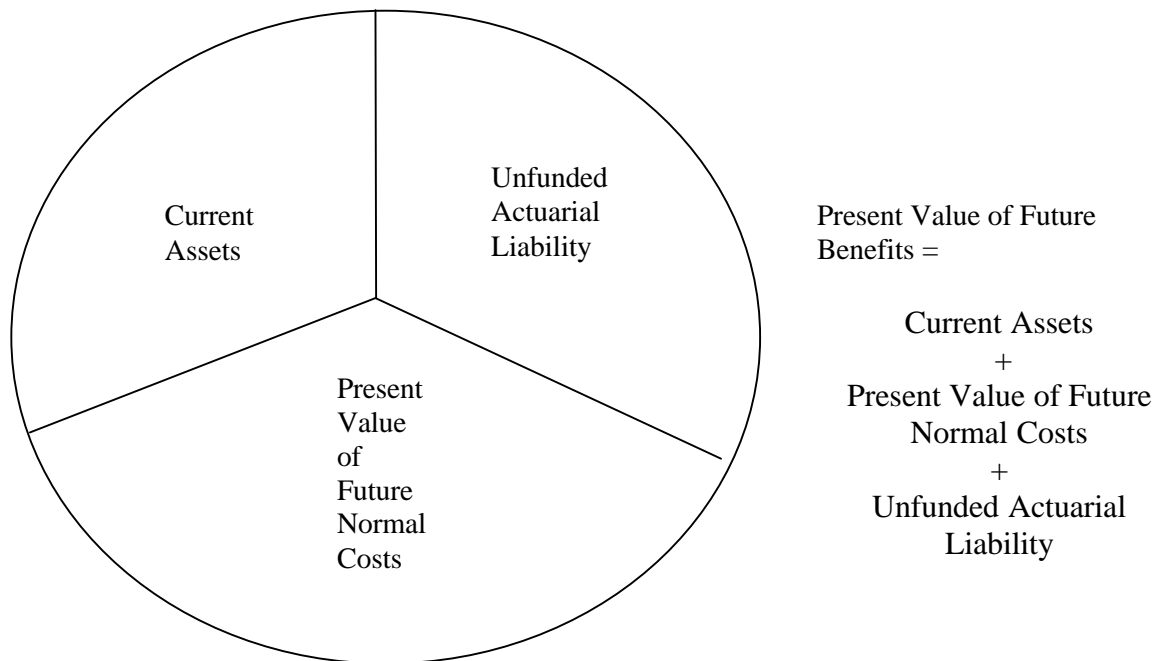
## Step Four

Once we have decided on a funding method, we can determine the annual contribution requirements for our plan. Under the Entry Age Normal and Unit Credit methods, the contribution usually is made up of two parts, the Normal Cost and the contribution to fund the Unfunded Actuarial Liability.

The Normal Cost can be thought of as the cost of the plan benefits earned in the coming year. If these Normal Costs were funded each year from a participant's date of hire, if all of the **Assumptions** turned out to be correct, if no **Assumptions** or **Methods** were changed, and if none of the **Facts** were changed by amendments, the Normal Cost contributions would be sufficient to fund the plan for all participants.

However, you can rest assured that actual experience *will* be different from the **Assumptions** and in many cases the **Assumptions** will have to be changed to accommodate these differences. **Methods** sometimes are changed to bring about a change in the funding pattern, and most plans are amended once in a while so that the **Facts** usually do change. Because of this, the total Present Value of benefits usually will not be funded by the Normal Costs alone. The liability that won't be funded by Normal Costs is called the Actuarial Liability. The amount of the Actuarial Liability in excess of the plan's assets is called the Unfunded Actuarial Liability (UAL). Each year, a contribution to fund the UAL must be made. The relationship between the Present Value of future benefits, the Normal Costs, and the Unfunded Actuarial Liability is illustrated in the Exhibit.

## Present Value of Future Benefits



For some plans, employees may share the cost of the plan, thereby reducing the employer's Normal Cost and Unfunded Actuarial Liability contributions.

The Unfunded Actuarial Liability usually is funded in installments. This is called amortization of the UAL. The method of amortization varies. If the plan is covered by ERISA minimum funding requirements, as most private employer plans are, there are specific rules as to how to fund this liability. Amortization requirements also can be specified in the plan itself, as is the case for many public employer plans. Payments to fund the UAL may be made as a level percent of future plan payroll or as a level dollar amount. The point is to spread funding of this liability over future years, similar to the way Normal Costs are designed to spread the costs over the future careers of the participants. This results in a total contribution amount that is fairly level and predictable.

This is just a brief attempt to explain exactly what actuaries do in our work with pension plans. As you can see, this process is fairly logical and understandable. In understanding this process, you will make the most use of the information your actuary provides. And, unlike what the title of this chapter says, don't be afraid to ask! Demystifying what an actuary does is an important part of the job.

# INVESTMENT MANAGEMENT PLAN

## EXECUTIVE SUMMARY

The California State Teachers' Retirement Board (Board) believes that to manage growth of assets in a prudent manner, it is necessary to establish a planning statement in the form of an Investment Management Plan under which the Investment Branch will operate. The Board has sole and exclusive fiduciary responsibility to administer the investment assets in a manner that will assure the prompt delivery of benefits and related services to the plan participants and their beneficiaries. As a public pension fund, the California State Teachers' Retirement System (CalSTRS) is not subject to ERISA that governs corporate pension plans. CalSTRS investment decision making criteria is based on the "prudent expert" standard for which the ERISA prudence standards serve as a basis. Additionally, The California Constitution requires diversification of risk across asset classes and minimization of employer costs.

This document represents the most recent update of CalSTRS' Investment Management Plan. The Investment Management Plan was developed within the context of the significant events that have occurred during CalSTRS' eighty-five year history. The CalSTRS Investment Management Plan is updated to reflect the changes that have occurred in the investment strategy and policy as a result of implementing approved programs. In addition, the Investment Management Plan is updated to ensure that the factors that impacted initial decisions are still relevant in the current environment.

This document addresses general objectives governing the policies of the

investment function and specific performance objectives. The general objectives are meant to provide a framework for the operation of the investment function. CalSTRS' performance objectives can be divided into objectives for the overall investment function and objectives for investment managers.

The asset allocation decision governs the allocation of CalSTRS' assets between public and private, fixed income and equity. Strategic allocation of CalSTRS' assets is the most important factor in the determination of the realized total rate of return. The investment staff and the general consultants worked together to create a variety of optimal asset allocation alternatives.

Strategic asset allocation targets are established in a variety of asset categories to achieve the identified performance objectives. In conjunction with the strategic asset allocation targets, tactical ranges provide flexibility to adapt to changing market conditions.

Subsequent to the establishment of strategic asset allocation targets, an investment structure was designed to guide and direct investment decisions. Investment related issues addressed included:

1. The relative amount of active and passive management.
2. The relative amount of internal and external management.
3. The appropriate direct and indirect costs of each asset category.
4. The appropriate reporting standards and time horizons.

## GENERAL INVESTMENT OBJECTIVES

One goal for The California State Teachers' Retirement System is to "maintain a financially sound Retirement System." Within this context, the following general investment objectives are designed to establish a framework for the operation of the investment.

1. CalSTRS' investment program must provide the means to pay benefits to its participants and their beneficiaries in the amounts and at the times called for through the investment of contributions and other fund assets.
2. Assets will be invested to produce expected returns on investments based on levels of liquidity and investment risk that are prudent and reasonable under diverse circumstances. Such circumstances will change, as new investment vehicles become available.
3. The reduction of CalSTRS' funding costs, within prudent levels of risk, is a consideration in the organization and structure of the investment portfolio.
4. Investment performance will be compared to other private and public pension funds with special emphasis on comparisons with other large public funds.
5. Management fees, trading costs, and other expenses will be aggressively monitored and controlled. Reduction of the cost of managing CalSTRS' assets will increase portfolio return over time.
6. The Investment Branch will conduct an annual planning session including an updated financial projection highlighting any modifications to the performance objectives.
7. CalSTRS' investment program must operate in compliance with all applicable State and Federal laws as well as regulations concerning the investment of pension assets.
8. The asset structure must provide for diversification of risk between asset classes to manage the risk/return relationship through strategic asset allocation.



## INVESTMENT PERFORMANCE OBJECTIVES

The general investment objectives designed a framework for the operation of the investment function. The performance objectives can be divided into two components: (1) performance objectives for the overall investment portfolio, and (2) performance objectives for the individual investment managers. CalSTRS incorporates both levels of analysis in its monitoring of the investment portfolio performance.

There are four performance objectives identified for the overall investment portfolio:

1. Relative to Strategic Asset Allocation Targets
2. Relative to Inflation
3. Relative to the Actuarial Rate of Interest
4. Relative to CalSTRS' Liabilities

The first objective identifies a comparative benchmark that reflects CalSTRS' unique asset allocation policy. This performance objective is a composite of the target weighting for each asset category multiplied by the performance benchmark's return for that category. This performance number is compared to the actual asset allocation and actual total rate of return. This

comparison identifies the contribution or detriment to performance caused by manager performance, market timing, and tactical asset allocation decisions.

The inflation related objective compares the investment performance against the rate of inflation as measured by the Consumer Price Index (CPI) plus 3.5 percent. The Consumer Price Index is used in the calculation of the estimated salary increases for the members (teachers). The inflation measure provides a link to CalSTRS' liabilities.

The actuarial rate of interest is reviewed and monitored as a measure of the long-term rate of growth of CalSTRS' assets. The current actuarial rate of interest is 8.0%. When adopting the actuarial rate of interest, the Board anticipates the investment portfolio may achieve higher returns in some years and lower returns in other years.

The liability related performance objective recognizes that liabilities must be paid in full and in a timely manner. The liabilities are future claims of the CalSTRS' participants. The actuarial rate of interest is used to discount the future value of the CalSTRS' liabilities to calculate the funded ratio.

## PERFORMANCE BENCHMARK

To facilitate the periodic reporting to the Investment Committee and to provide a relative measure to gauge success, custom performance benchmarks are approved by the Board. The approved custom performance benchmarks are shown below:

Total Public Equity - Weighted Russell 3000 Index and MSCI AC ex US Index

Domestic Equity - S&P 500 Index  
(large cap stocks)

- Russell 2500 Special Index  
(small cap stocks)

International Equity - MSCI AC ex US Index

Total Public Debt - Salomon Large Pension Fund Index

Domestic Debt - Salomon Large Pension Fund Index

Private Equity - Weighted NCREIF Property Index and Custom Alternative Investment Index

Real Estate -NCREIF Property Index

Alternative Inv. -Custom Alternative Investment Index

Each investment manager, for domestic and international, equity and fixed income, has an individualized benchmark designed to measure its performance relative to the objective identified in its investment guidelines.

# ASSET ALLOCATION

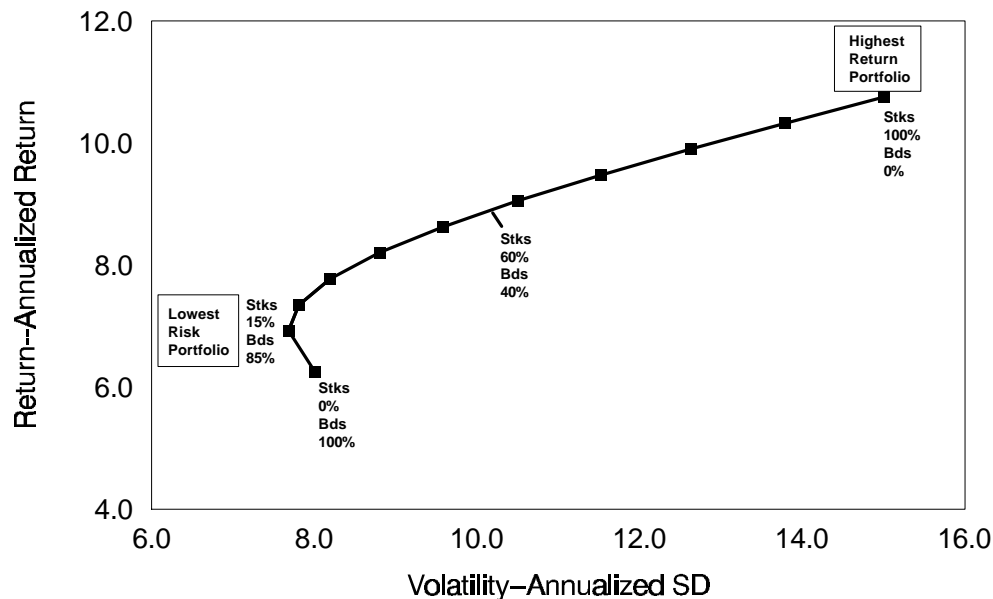
## A Review of Asset Allocation

A diversified investment portfolio consists of multiple asset classes whose investment returns respond differently to varying economic scenarios. Diversified portfolios are attractive because the combination of various asset classes can reduce expected risk while maintaining expected return. Combining assets having different return patterns can produce a portfolio that has much lower volatility (risk) than any individual asset while producing returns that are competitive. Maximizing return while reducing risk

increases the probability of meeting a specified return objective.

Efficient frontier analysis is a widely accepted method of analyzing the tradeoff between risk and return across portfolios having different mixes of assets. Through this quantitative technique (which relies on several critical assumptions), an optimization process identifies portfolios of assets providing the highest expected return, given a specified level of risk. The procedure continues to determine ideal portfolios at varying levels of risk until an entire range of ideal portfolios (termed an “efficient frontier”) is identified below.

## An Efficient Frontier for a Stock and Bond Portfolio



<b>Asset Class</b>	<b>Expected Annual Return</b>	<b>Expected Annual Volatility</b>
<b>Domestic Stocks:</b>	10.75%	15.0%
<b>Domestic Bonds:</b>	6.25%	8.0%
<b>Stock-Bond Correlation:</b>	0.30	

In selecting certain combinations of assets (such as domestic equity and fixed income) any rational investor will always consider the tradeoff between changes in return and changes in risk. At a minimum, investors should expect to receive a higher rate of return for an incremental increase in investment risk.

Each mix of assets is, in itself, a unique asset having its own return vs. risk tradeoff. As highlighted above, these asset portfolios can exhibit return patterns that differ greatly from any underlying asset. Depending on the extent of how individual assets move in relationship to each other (measured by correlation), certain mixes of assets could enhance the return-risk tradeoffs over investing in any single asset.

The curve-point in the curve in the efficient frontier chart shows when adding a certain proportion of stocks ceases to add value (simultaneously adding return and reducing risk). This point comes when stocks become 13% of the portfolio. Beyond this point, the only way to increase return is to increase risk incrementally. For those points along the line past the curve point, the only decision one has to make is how much incremental risk one is willing to accept. The only way to increase return will be to accept incremental increases in investment risk (uncertainty). The line between the curve-point and the “100% stocks” point is termed the “efficient

frontier.” Any point along the efficient frontier represents that unique portfolio that offers the highest return for the given amount of risk.

### **The Asset Allocation Process**

The key goal of the asset allocation process is develop an asset allocation policy that maximizes the likelihood that an investment portfolio’s assets will, over the planning horizon, fund Plan benefits.

#### Steps Involved in Setting Asset Allocation Policy

##### *Overview and Planning Steps*

1. Review rationale for policy.
  - importance of diversification
2. Review financial condition of Plan.
  - assets versus projected liabilities (balance sheet)
  - projected contributions versus projected benefits

##### *Investment Related Steps*

3. Review rationale for investment asset classes in light of plan financial requirements.
4. Develop expectations for asset class investment performance (returns, risks, correlations).

5. Identify investor-specific constraints that might limit investment strategies (e.g., liquidity).
6. Create model portfolios, incorporating objectives, assumptions, and constraints.
7. Isolate investor-specific model portfolio to represent an investor's asset allocation policy.
8. Perform additional sensitivity analyses to quantify impact of specific issues.
  - adjustments to required rate of return
  - shift in financial condition of Plan due to funding

Once the rationale for undertaking an asset allocation study is understood, a review of the financial condition of the plan becomes imperative. A key component of reviewing a plan's financial condition is studying the actuarial requirements of the plan. These requirements represent the plan's long-term liabilities and, when combined with the plan's investment portfolio, constitute

a pension plan's balance sheet. Understanding what factors (such as changes in interest rates, benefit structures, and plan demographics) influence these liabilities is important. Changes in these and other underlying factors may, in fact, alter a plan's liability structure. Such shifts could, in turn, impact the plan's financial condition. CalSTRS' were studied and considered as part of this asset allocation review.

#### Selecting Asset Classes for Portfolio Investment

As discussed earlier, there are three components required to model investment returns: (1) asset class expected returns, (2) asset class risks, and (3) correlation's among asset classes. Investment consultants develop these components, which are then used to develop efficient frontiers quantitatively. CalSTRS' current long-term expected returns and risks for various assets classes range from 4.0% to 15.0% per year.

#### **Total Return and Risk Estimates** Assumed inflation level: 3.0% per year

Asset Class	Expected Annual Return (Annld. SD)	Expected Risk
Cash	4.50	1.5
Domestic Bonds	6.25	8.0
Global Bonds	6.13	8.0
Domestic Stocks	10.75	15.0
International Stocks	10.50	18.0
Private Markets	12.50	16.0
Emerging Markets	14.00	30.0

These return and volatility estimates reflect several basic relationships:

1. Investors or lenders of capital require an incremental real return premium as a reward for making capital available.

2. Equity-oriented investment should, over long periods, produce return premiums that are higher than their fixed-income counterparts.
3. The private markets asset class is a combination of both real estate and alternative investments.

4. The return assumptions for the publicly-traded asset classes do not account for added value opportunities within each asset class.

## Review of Asset Allocation Policy

Over the last thirteen years, CalSTRS' asset allocation policy has shifted modestly.

**CalSTRS Asset Allocation Policy Trends (in %)**

Asset Class	Current	1995	1993	1986
Domestic Equities	38	34	33	40
Foreign Equities	25	18	18	15
Public Equity	63	52	51	55
Realty	5	5	10	10
Venture	5	3	7	5
Total Equity	73	60	68	70
Global	0	5	1	---
Fixed-Income	26	34	30	30
Cash	1	1	1	0
Stable Assets	27	35	31	30
Total	100	100	100	100

CalSTRS' investment policy has remained consistent from an equity/stable asset allocation viewpoint. In 1986, CalSTRS had a strategic allocation of 70% equities and 30% stable assets. In 1997, CalSTRS' Board adopted a similar policy (73% equity and 27% stable assets).

### Strategic Asset Allocation

The System's asset allocation strategy utilizes a design for today's needs, while anticipating the future capacity and growth of the investment portfolio. A strategic asset allocation target for public equity, private equity, liquidity, and public debt was last established in 1997 after reviewing a comprehensive asset allocation analysis completed by Pension Consulting Alliance. In conjunction with the strategic target, a range for each asset category has been established to provide

flexibility designed to reduce rebalancing costs and allow flexibility to adapt to changing market conditions. To control the risk and return relationship each asset category must be rebalanced to the strategic target occasionally. Rebalancing latitude is important and can significantly affect the performance of the portfolio. Blind adherence to narrow ranges increases transaction costs without a documented increase in performance. A rebalancing range that is too wide may cause undesired changes in the asset allocation. The range is plus or minus three percent around the strategic target for the major asset categories (domestic equity, international equity, and fixed income). The range is plus or minus two percent around the strategic target for the other asset categories (private equity and cash). The two or three percent range refers to the market value of the total investment portfolio.

### **CalSTRS Policy Target and Ranges**

	Strategic Target	Range
Domestic Equity	38%	35% to 41%
International Equity	25%	22% to 28%
Total Public Equity	63%	57% to 69%
Private Equity*	10%	8% to 12%
Total Equity	73%	68% to 77%
Debt	26%	23% to 29%
Cash	1%	0% to 3%
Total Public Debt	27%	23% to 32%
Total Asset Allocation	100%	

- Please note that the allocated not funded portion of the private equity will be invested in the S&P 500 Indexed portfolio. This amount will be shown as private equity – S&P 500 Index.

## **INVESTMENT STRUCTURE**

Investment structure guides and directs present and future investment decisions in a prudent manner. Investment related issues addressed included:

1. The relative amount of active and passive management
2. The relative amount of internal and external management
3. The appropriate direct and indirect costs of each asset category
4. The appropriate reporting standards and time horizons

### **ASSET ALLOCATION STRUCTURE**

1. Based on academic studies, it has been determined that 91% of the total return is attributable to the asset allocation decision. Consequently, each asset category shall remain within the tactical range approved in the strategic asset allocation adopted by the Board.
2. Control of the cash flow is critical to the success of long term investment strategies. Estimated cash flows shall be provided to the Investment Committee annually.
3. Each month the Chief Investment Officer will complete a report identifying the salient aspects of the investments including a section on compliance with approved asset allocation targets.

### **EQUITY STRUCTURE**

1. The domestic equity portfolio will be managed using both passive (80% target) and

active (20% target) strategies. The passive component may have both internal and external managers. The active component will be managed externally. The Investment Committee limits the number of active domestic equity managers.

2. The non-U.S. equity markets are assumed to be more inefficient, allowing active management to add value. The target will be an equal amount of active management (50%) and passive management (50%) strategies. Emerging markets will be utilized to enhance return and diversification. The passive component may have both internal and external managers. The active component will be managed externally. The Investment Committee limits the number of active non-U.S. equity managers.



## **FIXED INCOME STRUCTURE**

1. The long-term fixed income portfolio shall be comprised of investment grade securities using an enhanced indexing strategy. The internally managed portfolio will emphasize tracking the risk characteristics of the performance benchmark.
2. Short term fixed income, including the cash portion of equity portfolios, shall be managed internally with emphasis on safety and liquidity. The portfolio shall be comprised of investment grade securities, A1/P1 rated short term debt, and other appropriate securities as approved in the policies and procedures.

## **ALTERNATIVE INVESTMENT STRUCTURE**

1. The alternative investment portfolio will be comprised of limited partnerships and co-investments focusing on commitments to domestic and international partnerships as identified in the Alternative Investment policy. The alternative investment advisor and staff will analyze each partnership and conduct appropriate due diligence with the objective of achieving upper quartile performance, as identified by Venture Economics.
2. Private equity investments have substantial fees and costs, consequently, emphasis will be placed on negotiating, monitoring, and controlling the direct and indirect costs of each limited partnership investment.

## **REAL ESTATE STRUCTURE**

1. The real estate portfolio will be comprised of direct real estate investments and commingled funds (opportunistic funds) with adopted targets of 50% to low-risk, 25% to moderate-risk and 25% to high-risk investments.
2. To more closely align the interests of the plan sponsor and real estate manager, emphasis will be placed on negotiating, monitoring, and controlling the cash flow (both income and expense) associated with each property.

***CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM***  
***(CalSTRS)***  
***LEGISLATED BENEFIT IMPROVEMENTS***

The following represents over a decade of legislation, both State and federal, that CalSTRS has actively pursued to improve benefits for members and their beneficiaries. Some of these proposals have taken two years for the Teachers' Retirement Board (TRB) to carry through the legislative process, and longer for federal proposals. The TRB has either sponsored, co-sponsored or supported other sponsors on these initiatives that significantly impact the level of benefits or benefit structure enabling CalSTRS to either enhance or provide a promised benefit. It should also be noted, some attempts to make significant changes to benefit levels or the funding structure have not been approved by the Governor.

	STATE	FEDERAL
1999	<ul style="list-style-type: none"> <li>◆ Extended earnings limit waiver for all class-size reduction teachers; AB 335*</li> <li>◆ Enacted program to comply with Internal Revenue Code Section 415; AB 819*</li> <li>◆ Encouraged U.S. Congress and President to exclude state and local employees from mandatory Social Security; AJR 9*</li> <li>◆ Required to develop CalSTRS health care benefits; SB 159*</li> <li>◆ Restored of surviving spouse benefits eliminated due to remarriage; SB 437</li> <li>◆ Increased minimum allowance for career members; SB 713*</li> </ul>	<ul style="list-style-type: none"> <li>◆ Elk Hills Naval Petroleum Reserve - \$36 million appropriated as the second installment from STRS' share of the proceeds from the sale of the reserve.</li> <li>◆ Mandatory Social Security for new hires. STRS is actively involved in grassroots and national efforts to oppose the proposed solutions due to its overall impact to STRS members.</li> </ul>

\*Legislation denoted with an asterisk are either sponsored or co-sponsored by CalSTRS.

1998

## STATE

- ◆ Extended eligibility and eliminate the restriction on credit for unused sick leave; establish a career bonus for members with 30 or more years of service; guarantee funding stream for purchasing power protection payments; AB 1102\*.
- ◆ Incrementally increased the benefit factor from 2% at age 60 to 2.4% at age 63; AB 1150\*.
- ◆ Extended earnings exemption for class size reduction and the sunset date to January 1, 2005 for certain Medicare coverage; AB 2765\*.
- ◆ Reamortized the unfunded liability over 30 years; provide 65% of Elder Full Funding to pay for benefits; AB 2804\*.
- ◆ Authorized the TRB to study providing health care benefits to members and families; SB 1528\*.
- ◆ Established 100% financing Member Home Loan Program, as specified; SB 1945\*.
- ◆ Modified to SB-1027/1997 regarding the purchase of permissive and out-of-state service credit, as specified; Permit the purchase of “nonqualified” service; SB 2126\*.
- ◆ Added Option 8 to allow for multiple option beneficiaries and modify existing options, as specified; SB 2047\*.
- ◆ Provided for the return to an unmodified allowance for certain members, as specified; SB 2224.

## FEDERAL

- ◆ Elk Hills Naval Petroleum Reserve - \$36 million appropriated as the first installment from STRS’ share of the proceeds from the sale of the reserve.
- ◆ Mandatory Social Security for new hires. STRS is actively involved in grassroots and national efforts to oppose the proposed solutions due to its overall impact to STRS members.
- ◆ Implemented premium free Medicare Part A (Hospital Insurance) for individuals who may qualify under specified conditions as identified by the Social Security Administration; significant for nearly 400 individuals currently paying premiums in excess of \$300 each month.

1997	STATE	FEDERAL
	<ul style="list-style-type: none"> <li>◆ Enacted earnings limit exemption for teachers participating in the class size reduction program; AB 18*.</li> <li>◆ Expanded disability benefits to victims of an unlawful act, as specified; SB 629.</li> <li>◆ Extended the post-retirement earnings limit exemption (Golden Handshake); AB 686.</li> <li>◆ Increased purchasing power protection from 68.2% to 75%, as specified; SB 1026.</li> <li>◆ Authorized members to redeposit contributions withdrawn by a nonmember spouse; and purchase additional service credit for out-of-state public school employment; SB 1027*.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Elk Hills Naval Petroleum Reserve sold, and net proceeds to benefit 75% purchasing power protection; National Defense Authorization Act.</li> <li>◆ President signed the Taxpayer Relief Act of 1997, which made permanent the present moratorium on the application of the nondiscrimination tax rules; made changes in procedures related to the application of the Simplified General Rule; allows for portability of permissive service credit under governmental pension plans; and other relief from the IRC Section 415 defined contribution limits.</li> </ul>

1996	STATE	FEDERAL
	<ul style="list-style-type: none"> <li>◆ Facilitated employers' option to offer the Cash Balance Plan to part-time employees; AB 2673*.</li> <li>◆ Eliminated the requirement for dependent children to maintain full-time student status to remain eligible for disability or family allowance under Coverage A; AB 3032*.</li> <li>◆ Federal compliance with the Uniformed Services Employment and Reemployment Rights Act of 1994 (USERRA); SB 1877.</li> <li>◆ 1992 settlement claim relating to interest payments on the Elder Full Funding appropriation of \$540,000; SB 2095.</li> </ul>	<ul style="list-style-type: none"> <li>◆ President signed the National Defense Authorization Act, which granted California's claim for compensation for two school land sections known as Elk Hills Naval Petroleum Reserve.</li> <li>◆ President signed, amendment to Title 4 of the U.S. Code, which prevented California and other States from imposing a source tax on the payment of pension plans, as specified.</li> <li>◆ President signed the Small Business Job Protection Act of 1996, which provided pension simplification for governmental plans, such as STRS, and IRC Section 415 provisions.</li> </ul>

1995

STATE

- ◆ Extended the post-retirement earnings limit exemption to certain members under specified conditions; AB 948\*.
- ◆ Established minimum standards for full-time employment for all classes of employees for crediting service; AB 1122\*.
- ◆ Established the Cash Balance Plan to be administered by STRS for part-time public school employees; AB 1298\*.
- ◆ Modified pre-retirement options elections for survivor benefits; AB 1441\*.

FEDERAL

1994

## STATE

- ◆ Repealed the administrative fee for processing a refund to a member; AB 2550\*.
- ◆ Required STRS employers to inform part-time teachers of their right to elect membership in STRS; AB 2554\*.
- ◆ Extended membership in STRS to part-time and substitute adult education teachers; AB 2647.
- ◆ Required STRS to offer a Tax Sheltered Annuity (TSA) program; AB 3064\*.
- ◆ Required STRS to offer a mid-career retirement planning information program; AB 3407\*.
- ◆ Allowed STRS to develop one or more deferred compensation plans; AB 3705\*.
- ◆ Governor vetoed this initiative, which would have allowed STRS to offer health benefits to active and retired members; SB 192.
- ◆ Reestablished the Golden Handshake additional 2 years service credit program through December 31, 1998; SB 858\*.

## FEDERAL

- ◆ President signed USERRA, which allowed make-up pension accruals of returning military veterans, as specified.

1993

STATE

- ◆ Modified direct deposit process regarding benefit arrangements for members, as requested by members; AB 798\*.
- ◆ "Float Suit" settlement (\$8.9 million) that recovered investment earnings in the State's Pooled Money Investment Account; SB 77.
- ◆ Allows salary preservation by using three non-consecutive years for determining final compensation; SB 698\*.
- ◆ Allows a retired member to change options, as specified; SB 754.
- ◆ Extends the PERS Long-Term Health Care Program to STRS members; SB 857\*.

FEDERAL



1992

## STATE

- ◆ Allows members to purchase service credit for time spent on approved family care leave; AB 2538\*.
- ◆ Federal compliance that authorizes STRS to make rollovers directly to another eligible retirement plan; AB 2721\*.
- ◆ Betts established a new survivor benefits and disability program for all new members, allowed persons already members of STRS to elect to participate in the new program, and other changes to bring STRS into federal compliance with the Older Workers' Benefit Protection Act (OWBPA); SB 1884\*, SB 1885\* and SB 1886\*. Following are significant features:
  - Members eligible for lifetime disability @ 50% of final comp
  - Increased lump sum death payment from \$2,000 to \$5,000 or \$20,000 as appropriate and included automatic index
  - Automatic children's benefit to age 21, if eligible
  - Reduced offsets
  - Eliminated remarriage penalty

## FEDERAL

- ◆ Mandatory Social Security for public employees who are not members of a retirement system that provides a minimum level of retirement benefits; IRS regulations.
- ◆ President signed the Unemployment Compensation Amendments Act of 1992 to allow for rollovers.

1991	STATE	FEDERAL
	<ul style="list-style-type: none"><li>◆ Grants family care leave for up to four months, as specified; AB 77.</li><li>◆ Allowed for the purchase of time spent in the Persian Gulf; SB 1171*.</li></ul>	

1990

## STATE

- ◆ Extended sunset date of the Golden Handshake Program to December 31, 1993, as specified, allowed disabled and inactive members to participate in the Dave Elder STRS Home Loan Program, and allowed service credit for the time spent in the Persian Gulf; AB 2609.
- ◆ Increased the post retirement earnings limit to \$15,000, adjusted annually according to the CCPI; AB 4048.
- ◆ Modified calculations used in post disability service retirement allowances for those members who retired after reinstatement from disability; AB 4284\*.
- ◆ Authorized STRS to establish a loan program to assist with natural disaster situations; AB 53X.
- ◆ Memorialized Congress to establish a process by which STRS retirees could purchase the quarters needed to meet Medicare Part A eligibility; AJR 71.
- ◆ Added Options 6 and 7 settlements to allow a retiree return to the unmodified, as specified; SB 682.
- ◆ Elder STRS Full Funding Act - revised the annual General Fund contribution to a level that provides full funding of normal cost and provided amortization of the STRS unfunded obligation; SB 1370.

## FEDERAL

- ◆ President signed the Older Workers Benefit Protection Act (OWBPA), which required STRS to enact new disability benefit programs that do not discriminate on the basis of age.

1990

STATE

FEDERAL

◆ Equity Study appropriated funds to study the equity of benefits available under STRS. The study was completed in 1991 and staff provided a report to the Legislature on the following inequities; SB 2469\*:

- Family allowance discontinues when spouse remarries - **completed**
  - Refund of contributions to the surviving spouse of a deceased active member when the spouse remarries
  - Payment of allowances to dependent children age 18 to 22 - **completed**
  - Service credit for part-time service - **completed**
  - Sick leave service credit on pre-retirement death of a member - **completed**
  - Eligibility to elect the pre-retirement option is not the same as eligibility to retire
  - Service retirement allowance formula for reinstated disabled member
- Allow beneficiary of deceased member to continue redepositing previously refunded contributions
- Payment of quarterly supplement following the death of a retired member
  - Cost basis for purchase of service credit
  - Eligibility for family allowance is different for reinstatement versus rehire
  - Service credit under the reduced workload program
  - Various other issues as identified in the Equity Study

1989

STATE

- ◆ Federal compliance on IRC Section 415 "grandfather" benefit limitations; AB 50\*.
- ◆ Extends interest payments to option beneficiaries for late monthly allowance payments; SB 686\*.
- ◆ Modified post-retirement earnings limit from 50% to 100% of the change in the CCPI; SB 1039.
- ◆ Established a funding mechanism, Supplemental Benefit Maintenance Account (SBMA) to restore purchasing power of STRS benefits; SB 1407.
- ◆ Requires annual distribution of the proceeds of the SBMA at 68.2% of the original purchasing power to members and their beneficiaries to restore benefit levels; SB 1513.

FEDERAL

1988	<b>STATE</b>	<b>FEDERAL</b>
	<ul style="list-style-type: none"> <li>◆ Defined the initial effective date for purposes of applying post-retirement benefit increases when converting from disability to service retirement allowance; AB 2042*.</li> <li>◆ Authorized certain retirees of STRS to elect to purchase up to four years of military service credit; AB 3195.</li> <li>◆ Established separate accounts for service credit, contributions and interest awarded a non-member spouse; SB 1190.</li> <li>◆ Exemption from Probate Code to expedite death claim payments under certain conditions; SB 2080*.</li> <li>◆ Modified membership qualifications for substitutes and part-time employees; SB 2082.</li> </ul>	<ul style="list-style-type: none"> <li>◆ President signed the Technical and Miscellaneous Revenue Act of 1988 (TAMRA), which modified limitations for Section 415(b) of the 1986 IRC for government plans.</li> </ul>

1987	<b>STATE</b>	<b>FEDERAL</b>
	<ul style="list-style-type: none"> <li>◆ Extended sunset date for the Golden Handshake Program to June 30, 1990; AB 960.</li> <li>◆ Authorizes concurrent retirement for STRS members who move to employment covered by the Legislator's Retirement System, as specified; SB 990*.</li> </ul>	

**SOCIAL SECURITY BENEFITS AND CalSTRS MEMBERS**  
**(Updated excerpt from Teacher' Retirement Board material for September 11, 1997)**  
**Revised January 2000**

**Mandatory Social Security For New Employees**

**Introduction**

News out of Washington indicates that another movement is underway to extend Social Security coverage to all new state and local government employees. The enactment of such a proposal would have a major fiscal impact on new California teachers and employers and on the State Teachers' Retirement System (CalSTRS). Currently, members and employers are paying 16% of payroll toward the System's total cost rate of 19.876% of payroll. The required contribution for Social Security for new hires would be 6.20% of payroll from both new hires and their employers. Adding the new Social Security contribution of 12.40% on top of the 19.876% total cost rate would create a total required contribution rate of 32.276% of payroll for new hires.

The CalSTRS defined benefit program is designed as a fully independent program with a 2% at age 60 retirement benefit plus ancillary disability and survivor benefits. The addition of Social Security on top of this program will create an overlap of disability and survivor benefits and create a joint benefit which could be considered excessive by many. Therefore mandatory Social Security coverage for new teachers could necessitate the closure of the current CalSTRS program to new members and the enactment of a new, lower cost CalSTRS program which complements the Social Security program. (It should be noted that while in some states, including California, there are judicial or constitutional guarantees against reductions in retirement benefits for public employees, these guarantees would not necessarily apply to "new hires".)

In 1980, in a report commissioned by Congress, the Universal Social Security Coverage Study Group established that mandatory Social Security coverage would result in the transfer of significantly higher retirement costs to state and local governments. The report included a study by 13 independent actuaries, which analyzed retirement plans of independent state systems, and proposed new benefits and costs for those systems coordinated with social security. The overall actuarial costs of the proposed plans, including social security taxes and assuming approximately equal benefits, would have increased on the average of 5% to 8% of payroll.

However, mandating Social Security on public employees is a recurring threat because Congress sees mandatory coverage as a way to reduce federal budget deficits. While Social Security and Medicare are considered trust funds, contributions to the system are considered revenues when measuring the federal budget deficit.

This issue paper will provide a historical background, a review of a previously completed alternative benefit study, some consequences of mandating Social Security on new hires, a summary of two benefit "offset" provisions and a review of Medicare issues

**Historical Background**

1935

Social Security was established originally as a modest retirement system for employees of private industry as the Old Age and Survivors Insurance program (OASI). Employees of state and local government were excluded from coverage when Congress passed the Social Security Act. This was because of the constitutional question of levying the employer portion of the Social Security tax on state and local government.

#### 1951

Public employees that were not in positions covered by a state or local retirement system were given the option of joining Social Security. Eight states overcame the restriction of no coverage in a retirement system dissolving the existing retirement system, obtaining Social Security coverage for the jurisdictions' public employees and then reinstating the retirement system with either the same or revised provisions. Coverage under the new state system was usually mandatory for new hires in the eight states.

#### 1954

The Social Security program was again amended to make coverage voluntary to public employees even if they were covered by a state plan. The choice was up to the states, subject to a majority vote of the members of the plan. If Social Security coverage was elected, it was an all or nothing choice; that is to say all employees would be included.

#### 1955

In California, an every-member vote was conducted by the California Teachers Association (CTA). (It should be noted that in 1955 the makeup of employee organizations was much different than it is today, e.g., administrators were members of CTA.) The election resulted in rejection of Social Security on full-time teaching by 4 to 1.

#### 1956

Entry into Social Security was made even easier. Coverage could be extended to employees who wanted the coverage, while those who did not desire coverage could be excluded, if all newly hired employees were automatically covered. This provision was eventually extended to 20 states, including California (State legislation was passed for school classified and state employees to be covered under this provision in 1959 and 1961, respectively).

Also in 1956, the Disability Insurance program was added, providing income to disabled workers. The program has since been

referred to as the Old-Age, Survivors, and Disability Insurance program (OASDI).

#### 1967

Title XVIII - Medical Enrollment Act of 1967 established medical coverage for persons age 65 and older.

#### 1977

Legislation was passed establishing the "Government Pension Offset" which reduces Social Security benefits under certain circumstances if there is a pension based on employment not covered by Social Security. The pension offset of spousal benefit, if the spouse is receiving a public retirement benefit, did not take effect until 1982 and only if the spouse was not eligible for retirement as of that date.

#### 1983

Legislation was passed establishing the "Windfall Elimination Provision". This provides for an alternate calculation, resulting in a lower Social Security benefit, for retirees who primarily worked in employment not covered by Social Security, and who had other jobs where they paid Social Security taxes long enough to become eligible for covered benefits.

#### 1985

Mandatory Medicare for new hires of state and local governments became law as part of the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA). All new hires in California public schools after April 1, 1986 are covered by Medicare.

#### 1986

The Tax Reform Act of 1986 made extensive amendments to Internal Revenue Code Section 401 concerning the integration of qualified retirement plans with Social Security benefits. The integration requirements were further complicated by modifications to the general plan "nondiscrimination" regulations. Integration with Social Security subjects plans to complex Internal Revenue Service regulations. Because of administrative



complexities involved in the integration of Social Security, it is generally recommended that integration be avoided and that "supplemental" plans totally independent of Social Security be developed if necessary.

#### 1988

As a result of Congressional consideration of mandatory Social Security for new hires, Chapter 743 (AB 147--Elder) which required CalSTRS to develop and submit to the Legislature an actuarially sound and funded alternative retirement plan which, when coupled with Social Security, would provide a member of CalSTRS with adequate retirement benefits.

#### 1989

State legislation was passed which made it optional for public school employers to hold elections for Medicare coverage for active members hired before April 1, 1986. Individual members could choose Medicare coverage if the employer offered the election. The effective date of the Medicare coverage could not be earlier than January 1, 1997.

#### 1990

As part of the Omnibus Budget Reconciliation Act of 1990 (OBRA), Congress enacted a law requiring all public employees not covered by a state or local retirement plan meeting specified standards to be covered by Social Security. This led to the development of the CalSTRS Cash Balance Benefit Program for part-time teachers.

#### 1997

A Social Security-Advisory Council composed of 13 members recruited from business, labor and think tanks recently issued reports on the current state and future of Social Security. The Council members had widely differing views on how to solve the ongoing funding problems. But one area of agreement was that all newly hired state and local government workers should be required to pay into the program. It has been estimated that

mandating Social Security coverage on new hires would raise about \$16.3 billion over a five-year period.

### **Alternative Retirement Plan Study**

There have been several studies involving Social Security and CalSTRS over the years. The most thorough study related to the potential impact of mandating Social Security on the membership of CalSTRS was completed in 1989. Chapter 743, Statutes of 1988 (AB 147--Elder) specifically required the Teachers' Retirement Board to recommend an "alternative retirement plan" that would: 1) provide an "adequate retirement benefit" when coupled with Social Security, and 2) be actuarially sound and funded within the rates presently being contributed by the employer and employee to CalSTRS.

Many factors were considered in the design of the alternative plan(s), including:

- 1 . The Social Security program structures and benefit levels;
2. Employee and employer organizations' concerns which were submitted to the task force at task force meetings, Client Advisory Committee meetings, and Teachers' Retirement Board meetings;
3. "Target replacement ratios" were developed. "Target replacement ratio" is the percentage of a given pre-retirement gross salary that will produce the same post-retirement disposable income - the same standard of living - that was available immediately prior to retirement.
4. Federal government requirements in the area of pension plans, such as the applicable IRS provisions, the Employee Retirement Income Security Act (ERISA), and rulings by the Equal Employment Opportunity Commission (EEOC), and

5. The benefit program structures of twelve other states retirement system plans that provide benefits to public school teachers eligible for Social Security benefits; and
6. Guidance from legislative staff which indicated a preference for a CalSTRS plan that would be fully funded within the 8 percent of member salaries currently contributed by the employer. (This led to the development of alternatives that cost from 8 to 10 percent to supplement Social Security.)

The target replacement ratio to produce an equivalent benefit level was calculated at about 60% of the member's final salary prior to retirement. The total cost of the four alternatives developed ranged from about 23 to 26 percent of payroll when the cost of the 8 to 10 percent alternatives was added to the cost of Social Security. Therefore there would have been a cost increase for an equivalent benefit level of from 3 to 6 percent of payroll for new hires under the alternative plan options developed by the task force to meet the "target replacement ratio".

In 1998, the CalSTRS Consulting Actuary estimated the cost of a retirement plan which supplemented Social Security benefits to provide a total benefit equal to that currently provided by CalSTRS alone. In that analysis, the Consulting Actuary estimated that the additional combined cost to employers and employees would equal 7.05% of payroll, a 43% percent increase in costs from the levels currently being paid by CalSTRS-covered employees and employers.

Numerous plan design questions would need to be resolved along with the funding issues. Such plan design issues include whether or not the supplemental CalSTRS plan should provide ancillary disability and death benefits to augment those provided by Social Security. Also, since Social Security has a normal retirement age of 65, increasing to 67, should CalSTRS raise the normal retirement age and

should new adjustment factors be developed for early retirement? A great deal of research, plan design and costing would have to be performed before any reasonable recommendations concerning an approach to coordination with mandatory Social Security could be made.

#### Arguments in Opposition and Support of Requiring Social Security For State And Local Governments And Their New Hires

Arguments in opposition:

- The additional 12.40% cost for new members (6.20% for the employer plus 6.20% for the new member) would create a financial burden for California public schools and new hires. The average annual additional cost for a new hire would be at least \$1,600 each for the employer and the employee. Statewide the employer portion of the cost for new hires would be at least \$24 million a year. The additional required member-employer contribution of 12.40% approaches the normal cost of the current CalSTRS program (15.76%) leaving little room for the design of a supplemental retirement tier unless new funding can be found. Providing a retirement program that is coordinated with Social Security would require a 70 percent reduction in benefits to limit the cost to those currently part of CalSTRS. This could result in the need to develop a two-tier system with new hires being covered by Social Security and a lower cost retirement plan.
- Because the Social Security program offers disability and survivor coverage components, it is unlikely that the excellent CalSTRS disability and survivor coverage could be provided to new hires if a new retirement plan were to be designed.
- State and local government plans are much more soundly funded than Social Security and provide better benefits. State and local retirement plans are able to invest in securities providing a higher return than the

bonds held by Social Security. If Social Security is substituted for a large part of employees' retirement plan benefits, contributions will have to increase to fund the same level of benefits.

- The 1990 OBRA mandate required state and local employees be covered under a plan comparable to OASDI, if they are not covered by OASDI. This provided the connotation that coverage outside Social Security was appropriate.
- Coverage of new state and local workers would increase revenues to the Social Security fund for several years. However, Social Security does not have a short-term problem. Social Security has a long term funding problem because excess short term revenues are not being saved and invested to pay the accruing liabilities attributable to those revenues. If the cost of providing benefits exceeds the funding necessary to provide these benefits adding more people to the system will make matters worse, not better.
- There would be a loss of an element of control by the TRB to the federal government. The federal government controls the benefits and costs of the Social Security program. For example, benefits can and have been changed which have adversely impacted those eligible to receive as well as those receiving social security benefits. The future of the Social Security program is in doubt.

Arguments in support:

- The portability of Social Security benefits could be desirable for teachers who leave public school employment prior to vesting with CalSTRS or who have past or future employment in a state in which Social Security coverage is mandatory.
- There are various program features that may appeal to some members, e.g., Social

Security automatically provides a spousal benefit to married couples.

- The Social Security cost-of-living adjustment has a greater value than the CalSTRS improvement factor.

### **Social Security Program Benefit Reduction Provisions**

There are two provisions that may reduce benefits for many state and local government employees who are also eligible for Social Security from other employment. CalSTRS has received many complaints from retired members about these federal program "offset" provisions.

The first is the "Windfall Elimination Provision" (WEP) which was enacted by Congress in 1983. This provision primarily affects people who spend much of their working lives in employment that is not covered by Social Security, and who also have other jobs where they pay Social Security taxes long enough to become eligible for covered benefits. The formula used to calculate the Social Security benefit amount is modified, providing a lower Social Security benefit.

The modified formula is applied if the individual reached age 62 or became disabled after 1985 and first became eligible for a monthly pension in January 1986. This provision has a complex formula and affects people in different ways depending on dates a person becomes eligible for a pension and whether a person has "substantial" earnings for specified years. One example of the applied "Windfall Elimination Provision" follows:

Robert - Born in 1932 with Average Indexed Monthly Earnings of \$712

40% of first \$531	\$212
32% of next \$2,671(\$181)	58
15% of any remainder over \$3,202	<u>0</u>
Under WEP:	\$270

The second provision that has reduced the Social Security benefits of some CalSTRS retirees is the Government Pension Offset (GPO). Before the GPO offset was enacted, many state and local government employees qualified for both their pension allowance and for a spouse's benefit from Social Security. Two-thirds of the government pension is counted to offset the Social Security benefit. An example of the Government Pension Offset is as follows:

John - Age 65, \$1,000 - Social Security  
Mary - Age 65, \$500 - Social Security  
Spouse Benefits (50% of \$1,000)  
GPO Offset - Mary is a teacher:

\$1,200 - Per month CalSTRS Pension  
x 2/3  
\$ 800 - To be offset

\$500 - Spouse's Social Security  
- 800 - CalSTRS Pension to be offset  
\$ 0 - Payable in Social Security Spouse  
Benefits.

GPO Offset - Mary is a teacher and becomes a widow:

\$1,000 - Widow's Social Security  
- \$800 - 2/3 of CalSTRS Pension  
\$ 200 - Payable in Social Security Widow's  
Benefits

The National Education Association (NEA) has made efforts during the last two years to change the Social Security benefit reductions as it applies to retired state and local government employees. Because of the high cost of complete repeal of the "offsets", the NEA is pursuing an approach of exempting some modest amount of Social Security benefits from the offset, to protect low and middle income state and local retirees.

## **Mandatory Medicare**

Retired teachers in California are in very dissimilar health insurance circumstances depending on factors, such as their former

employer's policies for covering retirees, whether they have Medicare eligibility, age at retirement, etc. For example, only a few districts offer vested health insurance benefits for retired members. Some districts will make retiree contributions/benefits available to retirees until the retiree reaches age 65 or until they receive Medicare. Many districts provide neither contributions nor benefits to retirees except to offer them coverage in a separate "pool" from active members and require that retirees pay the full premium. Therefore, the most viable option for some retired teachers is securing some form of private health insurance and/or paying full Medicare A and B premiums themselves. (The Budget Reconciliation Bill enacted in August 1997 included a provision that individuals who have not qualified for Medicare coverage and must personally pay for Medicare A premiums, will not have to purchase Medicare after seven years of paid premiums. And those individuals that have already made payments for seven years are not required to pay Medicare A premiums.)

Over the past few years, CalSTRS has supported legislation to study alternatives for providing health care. After a number of prior vetoes, legislation authorizing such study was enacted in 1998. CalSTRS has participated in an effort to make it easier for school districts to participate in the health insurance programs offered by the Public Employees' Retirement System (PERS), which was eventually opposed and stopped by PERS affiliated employee organizations. CalSTRS supported and helped draft successful legislation sponsored by CTA and supported by CalSTRS employee organizations to make it optional for school districts to hold individual elections for members to join Medicare (772 school districts have made Medicare coverage available to CalSTRS members).

## GLOSSARY OF COMMONLY USED TERMS AT CalSTRS

CURRENT TERM	PREVIOUS TERM	DEFINITION
Active Member	Member	A <b>member</b> of the <b>Defined Benefit Program</b> who has performed creditable service within the last school year
Actuarial accrued liability		<b>Present value</b> of benefits payable in the future to current <b>members</b> or <b>participants</b>
Actuarial equivalent		Two <b>benefits</b> of equal present value, using mortality tables and interest rates adopted by the <b>Board</b>
Actuarial experience analysis		An actuarial investigation of the plan's experience that examines the factors that influence the cost of a retirement plan. It includes economic factors such as inflation, return on investment and wage increases as well as non-economic factors, such as mortality and rates of retirement and is the basis for adopting valuation assumptions
Actuarial gains and losses		The effect on the cost of a plan when experience differs from the assumptions used in determining the cost. (Because assumptions are long range and current experience fluctuates over the short range, actuarial gains and losses are normal occurrences and are not significant unless either gains or losses caused by the same factor consistently occur over an extended period of time.)
Actuarially assumed rate of return		The long-term annual rate of return of investment assumed in the valuation. The <b>actuarially assumed rate of return</b> for the June 30, 1997 valuation was 8%
Actuarially reduced		An allowance that has been reduced, but is still the <b>actuarial equivalent</b> of the original allowance
Actuarial valuation		The determination, as of a given date, of the <b>present value</b> of expected future liabilities of a pension plan, the assets of the plan, the <b>actuarial unfunded obligation</b> , the <b>normal cost rate</b> , the future salaries of members, and the resulting <b>amortization rate</b> for the <b>actuarial unfunded obligation</b> over a specified period
Additional earnings credit		An increase in earnings to the employee account and employer account in excess of the <b>minimum interest rate</b> in the <b>Cash Balance Benefit Program</b> , calculated as a percentage, as determined by the <b>Board</b> , of the ending prior fiscal year balance of each account

<sup>1</sup>Words and phrases in **bold** are defined elsewhere in the glossary

CURRENT TERM	PREVIOUS TERM	DEFINITION <sup>1</sup>
Ad hoc increase		A permanent increase to some or all benefits in force. It does not change the benefit plan, only the allowances currently being paid. The increase is usually granted because the regular cost-of-living adjustments have been less than inflation levels. , Ad hoc increases sometimes are and sometime are not included in the base for future ( <b>cost-of-living adjustments</b> )
Age factor		The percentage of <b>final compensation</b> per year of <b>credited service</b> payable as a <b>benefit</b> determined by the <b>member's</b> age at retirement
Amortization rate		The rate (usually expressed as a level percentage of payroll) needed to eliminate the <b>unfunded actuarial obligation</b> over a specified time. This rate is affected by changes in experience and by plan changes that apply to service performed prior to the valuation date
Annuitant reserve		A reserve established within the <b>Teachers' Retirement Fund</b> to which assets from a <b>Cash Balance Benefit Program participant's</b> account are transferred when the <b>participant</b> has elected to receive a benefit payment in the form of an <b>annuity</b>
Annuity		In the <b>Defined Benefit Program</b> , the amount paid to a <b>member</b> derived from voluntary contributions (no longer permitted) by a member in excess of those required for <b>creditable service</b> . In the <b>Cash Balance Benefit Program</b> , the amount of money paid monthly to a <b>participant</b> or <b>beneficiary</b>
Barnes Act		Part 13 of the Education Code, governing administration of the <b>Defined Benefit Program</b> . The formal name is the E. Richard Barnes Act
Basis of employment		The standard of time over which the employer expects <b>service</b> to be performed by an employee during the school year
Beneficiary		The person(s) or entity(ies) eligible to receive <b>Defined Benefit Program benefits</b> upon the death or disability of a member, or designated by a <b>participant</b> to receive <b>benefits</b> provided by the <b>Cash Balance Benefit Program</b> in the event of the <b>participant's</b> death

<sup>1</sup>Words and phrases in **bold** are defined elsewhere in the glossary

CURRENT TERM	PREVIOUS TERM	DEFINITION <sup>1</sup>
Benefit		<b>A monthly or lump sum payment made to a retired member, disabled member, retired participant, disabled participant or beneficiary</b>
Board		The <b>Teachers' Retirement Board</b>
California service		<b>Service</b> performed in California for which <b>service credit</b> may be given
Career bonus		A 0.2 percentage point increase in the <b>age factor</b> , up to a maximum <b>age factor</b> of 2.4%, for <b>Defined Benefit Program members</b> with 30 or more years of <b>credited service</b>
Cash Balance Benefit Program	State Teachers' Retirement System Cash Balance Plan	A program within the <b>State Teachers' Retirement Plan</b> available to persons employed to performed <b>creditable service</b> for less than 50% of full-time for employers who have elected to offer the program
Certificated		The holding by a person of a credential required by law to be held as a condition of valid employment in the position in which the person is employed
Class of employees		A group of employees who perform similar duties, are employed in the same type of program or share other similarities related to the work being performed
Compensation earnable		The annual <b>creditable compensation</b> that a person would earn during a school year if that person was employed on a full-time basis and worked full-time in that position
Concurrent retirement		The simultaneous retirement from the <b>Defined Benefit Program</b> and other specified California public retirement systems, in which <b>final compensation</b> for purposes of calculating a retirement allowance is based on the highest <b>final compensation</b> calculated for any of the eligible retirement systems
Contribution rate		The percentage of <b>creditable compensation</b> required to be paid by a <b>member, participant</b> or employer, as provided in the <b>Teachers' Retirement Law</b> , to finance the <b>benefits</b> provided by the <b>State Teachers' Retirement Plan</b>
Cost-of-living adjustment (COLA)		An adjustment made to an allowance to compensate for all or a part of the increase in the cost-of-living, usually as measured by a consumer price index. (See <b>improvement factor</b> )

<sup>1</sup>Words and phrases in **bold** are defined elsewhere in the glossary

CURRENT TERM	PREVIOUS TERM	DEFINITION <sup>1</sup>
Coverage A		A program of disability and <b>family allowances</b> available to persons who were <b>members on</b> October 15, 1992 and did not elect to be covered under <b>Coverage B</b>
Coverage B		A program of disability and <b>survivor benefits</b> available to persons who became <b>members after</b> October 15, 1992, or were <b>members on</b> October 15, 1992 and elected to be covered under <b>Coverage B</b>
Creditable compensation	Creditable earnings	In the <b>Defined Benefit Program</b> , the salary or other remuneration payable in cash by an employer to a <b>member</b> for <b>creditable service</b>
Creditable service		Specified <b>service</b> performed for an employer in a position requiring a credential, certificate or permit pursuant to the Education Code, or under standards adopted by the Board of Governors of the California Community Colleges or under the provisions of an approved charter for a charter school eligible to receive state apportionment
Credited interest		Interest credited to a <b>member's Defined Benefit Program</b> account at a rate set annually by the <b>Board</b> and refunded to the <b>member</b> or a <b>beneficiary</b> upon the <b>member's</b> termination of service. The <b>credited interest rate</b> is based on the average rate paid on two-year Treasury notes for the twelve months ending April 30, and for 1998-99 is set at 6%
Credited service		Service for which required contributions have been paid that are used to determine eligibility for an allowance payable under the <b>Defined Benefit Program</b>
Defined Benefit Program	State Teachers' Retirement System Defined Benefit Plan	The program of coverage available to <b>members</b> who perform <b>creditable service</b> , who have not elected to participate in the <b>Cash Balance Benefit Program</b> or who work less than half-time for an employer who has not elected to participate in the <b>Cash Balance Benefit Program</b>
Defined benefit plan		A retirement plan which specifies the <u>benefit</u> to be received after retirement, or the formula for determining such benefits. The benefits are not directly dependent on the individual's (and/or employer) contributions and the interest actually earned on those contributions. The contribution rate required for such a plan is determined through periodic valuations (Also see <b>hybrid plan</b> )

<sup>1</sup>Words and phrases in **bold** are defined elsewhere in the glossary



CURRENT TERM	PREVIOUS TERM	DEFINITION <sup>1</sup>
Defined contribution plan		A retirement plan where member and/or employer <u>contribution</u> rates are specified and the benefit is the accumulated contributions and interest credited to the member's account at the time of retirement, disability or termination of employment. Interest is credited at actual earning rates. An administrative charge may be deducted. Life annuities in the amount that can be purchased by the member's accumulation are often made available as one choice of distribution. The CalSTRS Tax-Sheltered Annuity 403(b) plan is a defined contribution plan. (Also see <b>hybrid plan</b> )
Disabled member	Disabillant	A member of the <b>Defined Benefit Program</b> receiving a <b>disability allowance</b>
Disabled participant		A member of the <b>Cash Balance Benefit Program</b> receiving a <b>disability benefit</b>
Disability allowance		An amount payable on a monthly basis to a <b>disabled member</b> subject to <b>Coverage A</b>
Disability benefit		A benefit payable to a <b>disabled participant</b> of the <b>Cash Balance Benefit Program</b>
Disability retirement allowance		An amount payable on a monthly basis to a <b>member</b> who has retired for disability subject to <b>Coverage B</b> , or retired for disability prior to 7/1/72
Entry age normal cost method		A method of calculating normal cost, that spreads cost as a level percentage of payroll over the entire working life of a member. This is the method used in the Defined Benefit Program
Family Allowance		A monthly allowance payable upon the death of an <b>active member</b> or a <b>disabled member</b> who was subject to <b>Coverage A</b> (Similar to <b>Survivor Allowance</b> , which is applicable to <b>member</b> deaths prior to July 1, 1972)

<sup>1</sup>Words and phrases in **bold** are defined elsewhere in the glossary

CURRENT TERM	PREVIOUS TERM	DEFINITION <sup>1</sup>
Final compensation		The highest average annual <b>compensation earnable</b> by a <b>member</b> during any period of three consecutive years while an <b>active member</b> , unless the member is a classroom teacher who retired during the term of a negotiated agreement to calculate <b>final compensation</b> on the basis of the highest 12 consecutive months, or <b>concurrently retires</b> with another California public retirement system, in which case service in the other systems is also considered when calculating <b>final compensation</b> (See also <b>Indexed Final Compensation</b> and <b>Projected Final Compensation</b> )
Full-time		The days or hours of <b>creditable service</b> the employer requires be performed by a <b>class of employees</b> in a school year to earn the <b>compensation earnable</b> for that class, subject to minimum standard of days or hours specified in the Education Code
Full-time equivalent		The time a person who is employed on a part-time basis would be required to serve in a school year if he or she were employed full-time in that position
Funding period		The time frame over which <b>amortization</b> occurs. It properly represents a specific date in the future at which time <b>amortization</b> is expected to be complete. This is known as a "closed" funding period. If <b>contribution rates</b> are fixed, the funding period will vary with each <b>actuarial valuation</b> . If <b>contribution rates</b> are adjusted after each <b>actuarial valuation</b> , the funding period is usually fixed and the <b>contribution rate</b> is adjusted to the level needed to <b>amortize</b> by the end of the funding period
Funding rate		<b>The cost, expressed as a level1 percentage of payroll, of paying the normal cost and eliminating the actuarial unfunded obligation over a specified period of time. It is the sum of the normal cost rate plus the amortization rate</b>
Gain and Loss Reserve		A reserve account established for the <b>Cash Balance Benefit Program</b> available to be drawn upon to the extent necessary to credit interest to employee accounts and employer accounts if investment earnings are not adequate to meet the <b>minimum interest rate</b>

<sup>1</sup>Words and phrases in **bold** are defined elsewhere in the glossary

CURRENT TERM	PREVIOUS TERM	DEFINITION <sup>1</sup>
Hybrid plan		A retirement plan that has features of both a <b>defined contribution plan</b> and a <b>defined benefit plan</b> . The <b>Cash Balance Benefit Program</b> is a hybrid plan because it provides a minimum guaranteed benefit by specifying contribution rates and a guaranteed <b>minimum interest rate</b> , and therefore meets the IRS definition of a <b>defined benefit plan</b> , but the ultimate benefit to the employee is, to a degree, determined by the rate of return earned by employee and employer contributions, and therefore acts like a <b>defined contribution plan</b>
Improvement factor		A simple increase of 2% in benefits provided on September 1 of each year following the first anniversary of the effective date of retirement, or the date monthly benefits accrue to a <b>beneficiary</b> . More commonly referred to as a <b>cost-of-living adjustment (COLA)</b>
Inactive member		<b>A member who is not a retired member or a disabled member and</b> has not earned compensation during the school year ending June 30.
Indexed final compensation		<b>Final compensation</b> upon which a disability allowance or disability retirement allowance was based, adjusted annually by the rate of change in the average <b>compensation earnable</b> , as determined by the <b>Board</b> . Used in determining whether a <b>disability allowance</b> should be terminated or has been overpaid because the <b>member</b> has received earnings from other sources in excess of specified limits
Joint and survivor annuity		A plan feature where a <b>retired participant</b> in the <b>Cash Balance Benefit Program</b> may choose to redistribute his or her retirement <b>benefit</b> over both the life of the <b>participant</b> and that of a <b>beneficiary</b> chosen by the <b>participant</b> (Similar to an <b>option</b> available to a member of the <b>Defined Benefit Program</b> )
Member		A person who has performed <b>creditable service</b> under the <b>Defined Benefit Program</b> and has earned compensation for that service, and has not received a refund for that service
Minimum interest rate		The annual rate determined by the <b>Board</b> and credited to employee accounts and employer accounts in the <b>Cash Balance Benefit Program</b> . The rate is based on the average rate paid on 30-year Treasury bonds for the twelve month period ending April 30, rounded up to the nearest ¼ percentage point. For 1998-99, the rate is 6.5%
Mortality rate		The average expected death rate for a group of individuals at a given age

<sup>1</sup>Words and phrases in **bold** are defined elsewhere in the glossary

CURRENT TERM	PREVIOUS TERM	DEFINITION <sup>1</sup>
Multiple retirement		A retirement by a <b>member</b> subsequent to the <b>reinstatement</b> of the <b>member</b> who had been receiving a <b>service retirement allowance</b> or a <b>disability retirement allowance</b>
Normal cost rate		The cost, expressed as a level percentage of payroll, of current or future (as opposed to prior) service. (When a plan change or a change in experience changes the expected liabilities only for service prior to the valuation date, this cost change will be shown in the amortization rate. When a change affects only liabilities for service to be performed after the valuation date, the change will affect the normal cost rate. If the change is applicable to all service, both before and after the valuation date, it will affect both the normal cost rate and the amortization rate)
Normal retirement age		The age at which a member is eligible for a <b>service retirement allowance</b> without reduction because of age and without special qualifications. The normal retirement age for <b>members</b> of the <b>Defined Benefit Program</b> and <b>participants</b> in the <b>Cash Balance Benefit Program</b> is age 60

<sup>1</sup>Words and phrases in **bold** are defined elsewhere in the glossary

CURRENT TERM	PREVIOUS TERM	DEFINITION <sup>1</sup>
Option		<p>An election by a <b>member</b> to provide an allowance that is <b>actuarially reduced</b> from the <b>unmodified allowance</b> and is payable to a <b>beneficiary</b> upon the <b>member's</b> death. CalSTRS currently has 7 options</p> <p><u>Option 2:</u>  <i>Joint and 100 percent to <b>beneficiary</b>:</i> Upon the retired member's death the modified allowance will continue to be paid to the <b>option beneficiary</b> for life.</p> <p><u>Option 3:</u>  <i>Joint and 50 percent to <b>beneficiary</b>.</i> Upon the retired member's death, one-half of the modified allowance will continue to be paid to the <b>option beneficiary</b> for life.</p> <p><u>Option 4:</u>  <i>Joint and 66 2/3 percent to survivor:</i> Upon the death of either the <b>retired member</b> or the <b>option beneficiary</b>, two-thirds of the modified allowance will continue to be paid to the survivor for life.</p> <p><u>Option 5:</u>  <i>Joint and 50 percent to survivor:</i> Upon the death of either the <b>retired member</b> or the <b>option beneficiary</b>, one-half of the modified allowance will continue to be paid to the survivor for life.</p> <p><u>Option 6:</u>  <i>Joint and 100 percent to <b>beneficiary with "Pop Up"</b>:</i> Upon the <b>retired member's</b> death, the modified allowance will continue to be paid to the <b>option beneficiary</b> for life. If the <b>option beneficiary</b> predeceases the <b>retired member</b>, the <b>retired member's</b> allowance will be raised or "pop up" to the <b>unmodified allowance level</b>.</p> <p><u>Option 7:</u>  <i>Joint and 50 percent to <b>beneficiary with "Pop Up"</b>:</i> Upon the <b>retired member's</b> death, one-half of the modified allowance will continue to be paid to the <b>option beneficiary</b> for life. If the <b>option beneficiary</b> predeceases the <b>retired member</b>, the <b>retired member's</b> allowance will pop up to the <b>unmodified allowance level</b></p> <p><u>Option 8</u>  Provides joint and survivor benefits to two or more option beneficiaries. Member may elect the same or a different option for each option beneficiary and may also reserve a portion of the allowance as unmodified. Upon the death of the member the option beneficiaries receive an allowance as stated under the designated options. If any of the option beneficiaries predecease the member, the allowance will change as stated under those designated options.</p>

<sup>1</sup>Words and phrases in **bold** are defined elsewhere in the glossary

CURRENT TERM	PREVIOUS TERM	DEFINITION <sup>1</sup>
Option beneficiary		A person designated to receive an allowance that is <b>actuarially reduced</b> from the <b>unmodified allowance</b> and is payable upon the <b>member's</b> death. ( <b>Participants</b> of the <b>Cash Balance Benefit Program</b> may elect to have <b>annuity</b> payments paid to <b>beneficiaries</b> on a similar basis, although such <b>beneficiaries</b> are not defined as <b>option beneficiaries</b> in that program)
Overtime		The total service performed by a <b>member</b> in excess of the hours of work considered normal for employees employed on a full-time basis
Participant		A person who has performed <b>creditable service</b> subject to coverage by the <b>Cash Balance Benefit Program</b> , who has contributions credited under the program or is receiving an <b>annuity</b> under the program
Permissive service credit		Specified previous service, such as maternity/paternity leave, sabbaticals or teaching in public schools in another state or territory, or up to 5 years of service credit not associated with any prior service, for which a member may purchase service credit
Pre-retirement option election		An election by a member who is eligible to retire to designate an <b>option</b> and a <b>beneficiary</b> , and in which the selected <b>option</b> allowance would be payable upon the death of the <b>member</b> , if the death preceded the <b>member's</b> retirement
Present value		Current value of a series of future payments computed with adjustments for (1) expected payment increases ( <b>improvement factor</b> ), (2) the likelihood of payment ( <b>mortality</b> ) and (3) the time value of money (interest)
Projected final compensation		The <b>final compensation</b> used when the <b>disability allowance</b> or <b>family allowance</b> was computed, increased by 2% compounded annually to the earlier of <b>normal retirement age</b> or the date the <b>disability allowance</b> is terminated. Used in determining a <b>service retirement allowance</b> for a <b>member</b> who is receiving a <b>disability allowance</b> and has reached <b>normal retirement age</b> or later if there is a dependent child, and to compute Option 3 allowance for eligible spouse after the death of a <b>member</b>

<sup>1</sup>Words and phrases in **bold** are defined elsewhere in the glossary

CURRENT TERM	PREVIOUS TERM	DEFINITION <sup>1</sup>
Projected service		The <b>credited service</b> plus the service credit that would have been earned if a <b>disabled member</b> had continued to earn <b>credited service</b> to the earlier of <b>normal retirement age</b> or the date the <b>disability allowance</b> is terminated. Used in determining a <b>service retirement allowance</b> for a <b>member</b> who is receiving a <b>disability allowance</b> and has reached <b>normal retirement age</b> or later when there is no dependent child, and to compute Option 3 allowance for eligible spouse after the death of a <b>member</b>
Purchasing power protection payments		Supplemental payments made to members whose current allowance is worth less than 75% of the original allowance, when adjusted for increases in the California Consumer Price Index (CPI). Also called <b>supplemental benefit maintenance payments</b>
Reciprocity	Concurrent retirement	A relationship between the California <b>State Teachers' Retirement Plan</b> and other specified California public retirement systems in which a person who is both a <b>member</b> of the <b>Defined Benefit Program</b> and the other system(s) is eligible for specific benefits, including the right to redeposit previously refunded contributions without being re-employed in a position subject to coverage in that retirement system, and to have <b>final compensation</b> computed based on highest compensation of either system
Regular interest		Interest equivalent to the average rate paid during the prior year for maturities of over one year in length by fixed-income securities. Applied to the amount due from <b>members</b> redepositing previously withdrawn contributions and making installment payments for <b>permissive service credit</b> , and to employers when reporting contributions after the specified deadlines
Reinstatement		The termination of a <b>service retirement allowance</b> or <b>disability retirement allowance</b> and establishing status either as an <b>inactive member</b> or an <b>active member</b>
Retired member	Retirant	A <b>member</b> receiving a <b>service retirement allowance</b> or a <b>disability retirement allowance</b>
Retired participant		A <b>participant</b> of the <b>Cash Balance Benefit Program</b> who elected to receive a <b>benefit</b> in the form of an <b>annuity</b> upon retirement

<sup>1</sup>Words and phrases in **bold** are defined elsewhere in the glossary

CURRENT TERM	PREVIOUS TERM	DEFINITION <sup>1</sup>
Salary		In the <b>Cash Balance Benefit Program</b> , compensation payable in cash by an employer to a <b>participant</b> for <b>creditable service</b> (Similar to <b>creditable compensation</b> to <b>Defined Benefit Program members</b> )
Service		Service performed for compensation in a position requiring membership in the <b>Defined Benefit Program</b> or permitting participation in the <b>Cash Balance Benefit Program</b>
Service retirement allowance		A monthly <b>benefit</b> payable to a <b>member</b> of the <b>Defined Benefit Program</b> upon retirement for reasons other than disability
Single life annuity		An election by a participant in the <b>Cash Balance Benefit Program</b> in which an <b>annuity benefit</b> ceases being paid upon the death of the <b>participant</b>
State Teachers' Retirement Plan		The plan of retirement benefits and other ancillary benefits provided through the <b>Defined Benefit Program</b> and the <b>Cash Balance Benefit Program</b>
State Teachers' Retirement System		<b>The agency that administers the State Teachers' Retirement Plan</b>
Supplemental benefit maintenance payments		Supplemental payments made to <b>members</b> and <b>beneficiaries</b> of the <b>Defined Benefit Program</b> whose current allowance is worth less than 75% of the original allowance, when adjusted for increases in the California Consumer Price Index (CCPI). Also called <b>purchasing power protection payments</b>
Survivor allowance		A monthly allowance payable upon the death of an <b>active member</b> or a <b>disabled member</b> prior to July 1, 1972 (Similar to <b>family allowance</b> , which is applicable to <b>member</b> deaths on or after July 1, 1972)
Survivor benefit allowance		<b>A monthly allowance payable upon the death of an active member who was subject to Coverage B</b>
Teachers' Retirement Board		A 12-member <b>Board</b> that manages the <b>State Teachers' Retirement System</b>

<sup>1</sup>Words and phrases in **bold** are defined elsewhere in the glossary



CURRENT TERM	PREVIOUS TERM	DEFINITION <sup>1</sup>
Teachers' Retirement Fund		The trust fund in the State Treasury in which all contributions and investment earnings associated with the <b>Defined Benefit Program</b> and the <b>Cash Balance Benefit Program</b> are held and from which all <b>benefits</b> are paid
Teachers' Retirement Law		Part 13 of the Education Code, governing administration of the <b>Defined Benefit Program</b> and Part 14 of the Education Code, governing administration of the <b>Cash Balance Benefit Program</b>
Termination benefit		The benefit paid from the employee account and the employer account to a <b>Cash Balance Benefit Program participant</b> on a lump-sum basis upon termination of service for any reason other than death, disability or retirement of the <b>participant</b>
Traditional unit credit cost method		A method under which <b>actuarial accrued liability</b> is equal to the present value of benefits for service accrued to the valuation date. The <b>normal cost</b> is equal to the actuarial present value of benefits allocated to a valuation year. This is the cost method used for the <b>Cash Balance Benefit Program</b>
Unfunded actuarial obligation		The additional assets a retirement plan would need to have on the valuation date in order to meet the expected liabilities of the plan for service that has been performed in the past. This figure does not include any liabilities that will be incurred for future service or any assets that will be received in the future. The liabilities are based upon anticipated future salary increases that will be used to determine future benefits. The value is dependent on the actuarial assumptions, the population, the actuarial cost method and the asset valuation method. Sometimes called the unfunded actuarial accrued liability
Unmodified allowance		The maximum monthly <b>benefit</b> paid to a <b>retired member</b> , which terminates upon the death of that <b>member</b>
Valuation assumptions		The factors used in calculating the expected future liabilities and assets of a retirement plan. They are long-range averages and are not necessarily indicative of current conditions. The most commonly quoted assumptions are return on investments, wage inflation and rate of inflation. Other assumptions, such as <b>mortality rate</b> and turnover, concern the number of people contributing to the retirement plan or drawing a <b>benefit</b> from the plan

<sup>1</sup>Words and phrases in **bold** are defined elsewhere in the glossary

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)  
November 17, 1999

**POPULATION INFORMATION**

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CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
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**TABLE 1**  
**Active Member Characteristics**

<u>Fiscal Year Ending June 30</u>	<u>Count</u>	<u>Average Earnable Salary<sup>1</sup></u>	<u>Average Age</u>	<u>Average Service</u>	<u>Average Service Projected To Age 60</u>
1990	299,860	\$38,141	44.3	12.0	27.7
1991	306,791	39,899	44.3	11.9	27.6
1992	312,579	40,100	44.5	11.9	27.4
1993	313,617	39,945	44.7	12.0	27.3
1994	319,176	40,180	44.7	12.0	27.2
1995	327,513	40,716	44.8	11.9	27.1
1996	336,725	41,577	44.9	11.8	27.0
1997	364,000	42,557	44.5	11.3	26.8
1998	385,530	43,766	44.3	11.0	26.7
1999	402,220	45,421	44.2	10.8	26.6

<sup>1</sup> Average salary that would be paid if members worked on a full-time basis

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 2**  
**Active Member Salary Characteristics**

Fiscal Year Ending June 30	Count	--- EARNED SALARY ---		----- EARNABLE SALARY <sup>1</sup> -----		
		Total Salary	Average Salary	Average Salary	% Increase Over Prior Yr	Average Increase to 1999
1990	299,860	\$10,724,811,531	\$35,766	\$38,141	5.0%	2.0%
1991	306,791	11,476,284,966	37,408	39,899	4.6	1.6
1992	312,579	11,728,522,769	37,522	40,100	0.5	1.8
1993	313,617	11,712,337,653	37,346	39,945	-0.4	2.2
1994	319,176	11,978,064,140	37,528	40,180	0.6	2.5
1995	327,513	12,411,264,262	37,895	40,716	1.3	2.8
1996	336,725	12,994,673,531	38,591	41,577	2.1	3.0
1997	364,000	14,371,068,403	39,481	42,557	2.4	3.3
1998	385,530	15,725,658,541	40,790	43,766	2.8	3.8
1999	402,220	17,007,886,951	42,285	45,421	3.8	-
Count			<u>Male</u> 120,770	<u>Female</u> 281,450		<u>Total</u> 402,220
Percent of Total			30.0%	70.0%		100.0%
Average Age			45.4	43.7		44.2
Average Service			12.0	10.3		10.8
Calculated Average Entry Age			33.4	33.4		33.4
Average Earnable Salary			\$47,169	\$44,671		\$45,421
Average Accumulated Contributions			\$55,663	\$43,991		\$47,496

<sup>1</sup> Salary that would be paid if members worked on a full-time basis

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 3**  
**Distribution of Active Members by Age and Service**  
 (Age and Service to nearest full year as of June 30, 1999)  
**ACTIVE MALE MEMBERS**

<u>Age</u>	<u>Service</u>					
	Less Than <u>.500</u>	1 Thru <u>5</u>	6 Thru <u>10</u>	11 Thru <u>15</u>	16 Thru <u>20</u>	21 Thru <u>25</u>
Less than 25	351	739	0	0	0	0
25 to 30	1,400	9,207	171	0	0	0
30 to 35	1,046	8,869	3,280	66	0	0
35 to 40	923	5,581	4,168	2,309	55	0
40 to 45	826	4,641	3,196	3,416	1,905	116
45 to 50	812	4,556	3,038	3,267	2,944	3,745
50 to 55	766	3,936	2,615	2,647	2,287	4,255
55 to 60	458	2,180	1,353	1,359	1,072	1,529
60 to 65	237	1,099	573	616	409	453
65 to 70	131	474	207	169	138	140
70 and over	66	285	89	60	43	28
Age Unknown	0	7	0	0	0	0
<b>Total</b>	<b>7,016</b>	<b>41,574</b>	<b>18,690</b>	<b>13,909</b>	<b>8,853</b>	<b>10,266</b>

<u>Age</u>	<u>Service</u>					<u>Total</u>
	26 Thru <u>30</u>	31 Thru <u>35</u>	36 Thru <u>40</u>	41 Thru <u>45</u>	Over <u>45</u>	
Less than 25	0	0	0	0	0	1,090
25 to 30	0	0	0	0	0	10,778
30 to 35	0	0	0	0	0	13,261
35 to 40	0	0	0	0	0	13,036
40 to 45	0	0	0	0	0	14,100
45 to 50	333	0	0	0	0	18,695
50 to 55	6,229	566	0	0	0	23,301
55 to 60	4,021	4,589	334	0	0	16,895
60 to 65	963	1,455	990	38	0	6,833
65 to 70	160	233	249	109	0	2,010
70 and over	48	57	25	41	22	764
Age Unknown	0	0	0	0	0	7
<b>Total</b>	<b>11,754</b>	<b>6,900</b>	<b>1,598</b>	<b>188</b>	<b>22</b>	<b>120,770</b>

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 3**  
**Distribution of Active Members by Age and Service**  
 (Age and Service to nearest full year as of June 30, 1999)  
**ACTIVE FEMALE MEMBERS**

<u>Age</u>	<u>Service</u>					
	Less Than <u>.500</u>	1 Thru <u>5</u>	6 Thru <u>10</u>	11 Thru <u>15</u>	16 Thru <u>20</u>	21 Thru <u>25</u>
Less than 25	1,363	3,553	0	0	0	0
25 to 30	2,992	29,810	854	0	0	0
30 to 35	1,696	20,013	10,485	488	0	0
35 to 40	1,431	11,834	9,456	6,918	243	0
40 to 45	1,715	12,022	7,834	7,556	4,856	277
45 to 50	1,573	12,474	9,260	8,480	6,714	6,595
50 to 55	1,152	9,314	8,278	8,935	5,997	6,650
55 to 60	584	4,263	3,806	5,009	4,169	3,939
60 to 65	233	1,491	1,214	1,673	1,620	1,669
65 to 70	94	520	340	460	422	464
70 and over	59	328	126	126	122	104
Age Unknown	41	348	0	0	0	0
<b>Total</b>	<b>12,933</b>	<b>105,970</b>	<b>51,653</b>	<b>39,645</b>	<b>24,143</b>	<b>19,698</b>

<u>Age</u>	<u>Service</u>					<u>Total</u>
	26 Thru <u>30</u>	31 Thru <u>35</u>	36 Thru <u>40</u>	41 Thru <u>45</u>	Over <u>45</u>	
Less than 25	0	0	0	0	0	4,916
25 to 30	0	0	0	0	0	33,656
30 to 35	0	0	0	0	0	32,682
35 to 40	0	0	0	0	0	29,882
40 to 45	0	0	0	0	0	34,260
45 to 50	603	0	0	0	0	45,699
50 to 55	9,256	1,065	0	0	0	50,647
55 to 60	4,841	5,610	543	0	0	32,764
60 to 65	1,525	1,525	949	50	0	11,949
65 to 70	421	390	170	104	7	3,392
70 and over	110	112	61	40	26	1,214
Age Unknown	0	0	0	0	0	389
<b>Total</b>	<b>16,756</b>	<b>8,702</b>	<b>1,723</b>	<b>194</b>	<b>33</b>	<b>281,450</b>

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 3**  
**Distribution of Active Members by Age and Service**  
 (Age and Service to nearest full year as of June 30, 1999)  
**TOTAL ACTIVE MEMBERS**

Service

<u>Age</u>	<u>Less Than .500</u>	<u>1 Thru 5</u>	<u>6 Thru 10</u>	<u>11 Thru 15</u>	<u>16 Thru 20</u>	<u>21 Thru 25</u>
Less than 25	1,714	4,292	0	0	0	0
25 to 30	4,392	39,017	1,025	0	0	0
30 to 35	2,742	28,882	13,765	554	0	0
35 to 40	2,354	17,415	13,624	9,227	298	0
40 to 45	2,541	16,663	11,030	10,972	6,761	393
45 to 50	2,385	17,030	12,298	11,747	9,658	10,340
50 to 55	1,918	13,250	10,893	11,582	8,284	10,905
55 to 60	1,042	6,443	5,159	6,368	5,241	5,468
60 to 65	470	2,590	1,787	2,289	2,029	2,122
65 to 70	225	994	547	629	560	604
70 and over	125	613	215	186	165	132
Age Unknown	41	355	0	0	0	0
Total	19,949	147,544	70,343	53,554	32,996	29,964

<u>Age</u>	<u>26 Thru 30</u>	<u>31 Thru 35</u>	<u>Service 36 Thru 40</u>	<u>41 Thru 45</u>	<u>Over 45</u>	<u>Total</u>
Less than 25	0	0	0	0	0	6,006
25 to 30	0	0	0	0	0	44,434
30 to 35	0	0	0	0	0	45,943
35 to 40	0	0	0	0	0	42,918
40 to 45	0	0	0	0	0	48,360
45 to 50	936	0	0	0	0	64,394
50 to 55	15,485	1,631	0	0	0	73,948
55 to 60	8,862	10,199	877	0	0	49,659
60 to 65	2,488	2,980	1,939	88	0	18,782
65 to 70	581	623	419	213	7	5,402
70 and over	158	169	86	81	48	1,978
Age Unknown	0	0	0	0	0	396
Total	28,510	15,602	3,321	382	55	402,220

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
 POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)  
 November 17, 1999

**TABLE 4**  
**Active Members Classified by Age**

MALE

<u>Age</u>	<u>Count</u>	<u>Average Service Credit</u>	<u>Average Earnable Salary</u>	<u>Age</u>	<u>Count</u>	<u>Average Service Credit</u>	<u>Average Earnable Salary<sup>1</sup></u>
20	4	.346	\$27,014	47	3,735	11.864	\$49,113
21	7	1.073	28,702	48	3,977	12.951	50,573
22	31	.850	25,313	49	4,284	13.873	51,564
23	287	.696	26,875	50	4,566	14.912	52,540
24	761	.911	27,257	51	4,675	16.029	53,633
25	1,419	1.207	28,067	52	5,131	17.103	54,442
26	1,690	1.486	28,986	53	4,889	18.095	55,431
27	2,039	1.828	30,380	54	4,040	19.080	56,173
28	2,641	2.121	31,162	55	3,919	20.138	56,661
29	2,989	2.456	32,442	56	3,856	20.860	57,480
30	2,866	2.884	33,366	57	3,533	21.740	56,962
31	2,707	3.278	34,852	58	2,992	23.151	58,277
32	2,605	3.747	36,274	59	2,595	22.881	58,013
33	2,541	4.161	37,123	60	2,216	22.718	57,903
34	2,542	4.489	38,196	61	1,645	21.779	57,087
35	2,587	5.060	39,353	62	1,187	20.449	55,595
36	2,607	5.437	40,163	63	978	20.800	55,500
37	2,594	6.050	41,481	64	807	20.310	55,031
38	2,618	6.558	42,313	65	611	18.509	51,201
39	2,630	6.921	42,739	66	465	18.170	51,594
40	2,645	7.453	44,028	67	376	19.221	53,226
41	2,656	7.815	44,279	68	304	17.526	49,274
42	2,866	8.299	44,889	69	254	18.266	50,760
43	2,977	8.856	45,841	70	176	15.465	47,457
44	2,956	9.445	46,067	71	138	15.189	47,027
45	3,207	10.208	47,254	71+	450	12.729	40,899
46	3,492	11.151	48,738	Age Unknown	7	2.745	29,269
				Total	120,770	12.009 <sup>2</sup>	\$47,169 <sup>2</sup>

<sup>1</sup> Average salary that would be paid if members worked on a full-time basis

<sup>2</sup> Overall averages



CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 4**  
**Active Members Classified by Age**

**FEMALE**

<u>Age</u>	<u>Count</u>	<u>Average Service Credit</u>	<u>Average Earnable Salary</u>	<u>Age</u>	<u>Count</u>	<u>Average Service Credit</u>	<u>Average Earnable Salary<sup>1</sup></u>
20	20	1.243	\$26,761	47	9,351	10.880	\$47,061
21	35	.740	24,161	48	9,579	11.478	47,605
22	154	.546	23,589	49	9,895	12.419	48,951
23	1,421	.676	25,979	50	10,182	13.177	49,737
24	3,286	1.037	28,248	51	10,441	14.112	50,793
25	5,047	1.381	29,707	52	11,390	15.314	51,717
26	6,062	1.739	30,912	53	10,288	16.119	52,311
27	6,891	2.151	32,123	54	8,346	16.827	52,631
28	7,491	2.519	33,060	55	7,918	17.288	53,135
29	8,165	2.926	34,320	56	7,714	18.534	53,708
30	7,632	3.359	35,364	57	6,935	19.027	53,479
31	6,927	3.826	36,610	58	5,502	19.459	53,546
32	6,403	4.382	37,372	59	4,695	20.173	54,248
33	5,910	4.925	38,695	60	3,732	20.443	54,310
34	5,810	5.390	39,664	61	2,956	19.821	52,822
35	5,767	5.850	40,312	62	2,237	18.815	51,788
36	5,975	6.397	41,641	63	1,654	18.968	51,979
37	5,963	6.640	41,518	64	1,370	18.734	50,799
38	6,090	6.993	42,312	65	1,062	18.857	51,047
39	6,087	7.286	42,299	66	796	18.475	51,123
40	6,198	7.521	42,406	67	612	19.209	50,731
41	6,332	7.787	43,140	68	504	19.342	50,529
42	6,828	8.266	43,801	69	418	18.957	49,478
43	7,225	8.769	44,413	70	300	17.136	46,611
44	7,677	8.995	44,366	71	211	17.385	46,836
45	8,154	9.883	45,972	71+	703	16.016	43,896
46	8,720	10.359	46,497	Age Unknown	389	1.910	32,004
				Total	281,450	10.317 <sup>2</sup>	\$44,671 <sup>2</sup>

<sup>1</sup> Average salary that would be paid if members worked on a full-time basis

<sup>2</sup> Overall averages

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 4**  
**Active Members Classified by Age**

**TOTAL**

<u>Age</u>	<u>Count</u>	<u>Average Service Credit</u>	<u>Average Earnable Salary</u>	<u>Age</u>	<u>Count</u>	<u>Average Service Credit</u>	<u>Average Earnable Salary<sup>1</sup></u>
20	24	1.094	\$26,803	47	13,086	11.161	\$47,647
21	42	.796	24,918	48	13,556	11.910	48,476
22	185	.597	23,878	49	14,179	12.859	49,740
23	1,708	.680	26,130	50	14,748	13.714	50,605
24	4,047	1.013	28,062	51	15,116	14.705	51,671
25	6,466	1.343	29,347	52	16,521	15.870	52,563
26	7,752	1.684	30,492	53	15,177	16.756	53,316
27	8,930	2.077	31,725	54	12,386	17.562	53,786
28	10,132	2.415	32,565	55	11,837	18.232	54,303
29	11,154	2.800	33,817	56	11,570	19.309	54,965
30	10,498	3.229	34,818	57	10,468	19.943	54,655
31	9,634	3.672	36,116	58	8,494	20.760	55,213
32	9,008	4.198	37,055	59	7,290	21.137	55,589
33	8,451	4.695	38,222	60	5,948	21.291	55,648
34	8,352	5.116	39,217	61	4,601	20.521	54,347
35	8,354	5.606	40,015	62	3,424	19.381	53,108
36	8,582	6.105	41,192	63	2,632	19.649	53,287
37	8,557	6.461	41,507	64	2,177	19.318	52,368
38	8,708	6.862	42,313	65	1,673	18.730	51,103
39	8,717	7.176	42,432	66	1,261	18.362	51,297
40	8,843	7.501	42,891	67	988	19.213	51,681
41	8,988	7.795	43,477	68	808	18.659	50,057
42	9,694	8.276	44,123	69	672	18.696	46,962
43	10,202	8.794	44,830	70	476	16.518	46,924
44	10,633	9.120	44,839	71	349	16.516	46,911
45	11,361	9.975	46,334	71+	1,153	14.733	42,726
46	12,212	10.585	47,138	Age Unknown	396	1.925	31,956
				Total	402,220	10.825 <sup>2</sup>	\$45,421 <sup>2</sup>

<sup>1</sup> Average salary that would be paid if members worked on a full-time basis

<sup>2</sup> Overall averages

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)  
November 17, 1999

**TABLE 5**

**Number of Inactive Members**

Fiscal Year Ending <u>June 30</u>	<u>Total</u>	Male <u>% of Total</u>	Female <u>% of Total</u>
1990	47,063	28.7%	71.3%
1991	49,396	28.5	71.5
1992	50,898	28.0	72.0
1993	51,094	27.3	72.7
1994	53,222	27.2	72.8
1995	54,159	26.7	73.3
1996	56,424	26.8	73.2
1997	59,385	27.2	72.8
1998	61,848	27.4	72.6
1999	69,112	27.7	72.3

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 6**  
**Inactive Member Characteristics**

Fiscal Year Ending <u>June 30</u>	<u>Total</u>	Average Contributions on Deposit	Average <u>Age</u>	Average Years <u>Service Credit</u>	Average Years <u>Inactive</u>
1990	47,063	\$ 7,456	48.2	3.6	7.4
1991	49,396	7,900	48.4	3.6	7.8
1992	50,898	8,312	48.3	3.5	8.0
1993	51,094	9,078	48.1	3.6	8.1
1994	53,222	9,607	47.9	3.5	8.2
1995	54,159	10,282	47.4	3.6	8.0
1996	56,424	10,931	47.2	3.5	8.0
1997	59,385	11,431	47.3	3.5	8.2
1998	61,848	11,731	47.5	3.4	8.3
1999	69,112	12,105	47.1	3.3	8.0

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 7**

**Number of Members Retired for Service<sup>1</sup>**

Fiscal Year Ending June 30	<u>Total</u>	<u>Male</u> % of Total	<u>Female</u> % of Total
1990	110,465	35.9%	64.1%
1991	115,010	36.6	63.4
1992	118,963	37.1	62.9
1993	122,762	37.6	62.4
1994	126,476	37.9	62.1
1995	130,576	38.1	61.9
1996	133,764	38.2	61.8
1997	135,809	38.3	61.7
1998	139,193	38.3	61.7
1999	142,309	38.3	61.7

<sup>1</sup> Does not include formerly disabled members

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 8**

**All Members Retired for Service Characteristics<sup>1</sup>**

Fiscal Year Ending <u>June 30</u>	Average Age <u>At Retirement</u>	Average Years of Service <u>Credit</u>	Average Final <u>Compensation</u>	Average Current Allowance <u>Payable</u>
1990	60.6	23.6	\$2,025	\$1,040
1991	60.9	23.8	2,160	1,115
1992	60.8	24.2	2,285	1,217
1993	60.9	24.3	2,414	1,297
1994	60.9	24.5	2,532	1,369
1995	60.9	24.6	2,637	1,434
1996	60.9	24.7	2,743	1,502
1997	60.8	24.8	2,837	1,566
1998	60.8	24.7	2,945	1,638
1999	60.7	24.8	3,057	1,729

<sup>1</sup> Does not include formerly disabled members

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 9**  
**Members Retired for Service**  
**During the 1998/99 Fiscal Year<sup>1</sup>**  
 Classified by Unmodified Allowance

Monthly Unmodified Allowance	Count	<u>MALE</u>			
		Average Age at Retirement	Average Service Credit	Average Final Compensation	Average Allowance Payable
Less than \$500108	61.5	7.218	\$2,786	\$287	
500 - 1000	137	60.5	11.401	3,780	707
1000 - 1500	140	60.5	16.558	4,214	1,155
1500 - 2000	173	59.7	22.908	4,447	1,626
2000 - 2500	229	59.7	26.976	4,557	2,088
2500 - 3000	287	59.6	29.988	4,836	2,586
3000 - 3500	384	60.9	32.424	4,815	2,984
3500 - 4000	340	61.8	34.358	4,893	3,441
4000 - 4500	337	62.8	36.344	4,999	3,824
4500 - 5000	220	63.5	37.936	5,314	4,271
More than \$5000	312	64.8	40.244	6,122	5,206
Total	2,667	61.6 <sup>2</sup>	30.260 <sup>2</sup>	\$4,833 <sup>2</sup>	\$2,989 <sup>2</sup>

Monthly Unmodified Allowance	Count	<u>FEMALE</u>			
		Average Age at Retirement	Average Service Credit	Average Final Compensation	Average Allowance Payable
Less than \$500301	60.9	7.647	\$2,284	\$ 298	
500 - 1000 480	59.7	12.884	3,452	737	
1000 - 1500 507	60.0	17.473	4,007	1,216	
1500 - 2000 564	59.5	22.578	4,274	1,695	
2000 - 2500 590	60.3	26.140	4,498	2,174	
2500 - 3000 577	60.7	29.474	4,670	2,657	
3000 - 3500 566	61.4	32.261	4,785	3,140	
3500 - 4000 469	62.3	34.173	4,889	3,632	
4000 - 4500 277	63.2	35.836	5,187	4,083	
4500 - 5000 131	63.5	38.038	5,363	4,556	
More than \$5000	119	64.8	39.845	6,311	5,486
Total	4,581	60.9 <sup>2</sup>	25.415 <sup>2</sup>	\$4,371 <sup>2</sup>	\$2,335 <sup>2</sup>

<sup>1</sup> Does not include formerly disabled members

<sup>2</sup> Overall averages

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 9**

(CAFR)

**Members Retired for Service  
 During the 1998/99 Fiscal Year<sup>1</sup>**

Classified by Unmodified Allowance

**TOTAL**

<u>Monthly Unmodified Allowance</u>	<u>Count</u>	<u>Average Age at Retirement</u>	<u>Average Service Credit</u>	<u>Average Final Compensation</u>	<u>Average Allowance Payable</u>
Less than \$500	409	61.1	7.534	\$2,417	\$295
500 - 1000	617	59.9	12.553	3,525	731
1000 - 1500	647	60.1	17.274	4,052	1,203
1500 - 2000	737	59.6	22.656	4,315	1,679
2000 - 2500	819	60.1	26.373	4,514	2,150
2500 - 3000	864	60.3	29.645	4,725	2,633
3000 - 3500	950	61.2	32.327	4,797	3,077
3500 - 4000	809	62.1	34.250	4,891	3,552
4000 - 4500	614	63.0	36.116	5,083	3,940
4500 - 5000	351	63.5	37.974	5,332	4,377
More than \$5000	431	64.8	40.134	6,174	5,283
<b>Totals</b>	<b>7,248</b>	<b>61.2<sup>2</sup></b>	<b>27.198<sup>2</sup></b>	<b>\$4,541<sup>2</sup></b>	<b>\$2,575<sup>2</sup></b>

<sup>1</sup> Does not include formerly disabled members

<sup>2</sup> Overall averages



CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
 POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)  
 November 17, 1999

**TABLE 10**

**Members Retired for Service  
 During 1998/99 Fiscal Year<sup>1</sup>**

Classified by Age and Joint & Survivor Annuity Option Elected<sup>2</sup>

**MALE**

	<u>Age</u>	<u>Total</u>	<u>Options</u> <u>Unmod.</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Under	55	11	4	3	0	0	0	2	2
	55	87	44	11	2	0	1	15	14
	56	172	75	24	6	1	3	38	25
	57	128	55	13	5	3	1	34	17
	58	161	58	16	5	3	5	44	30
	59	193	63	21	12	7	4	56	30
	60	332	97	50	9	5	7	109	55
	61	297	95	38	11	8	5	95	45
	62	271	79	32	12	12	3	90	43
	63	201	48	22	12	7	2	73	37
	64	175	38	21	5	5	1	65	40
	65	152	40	30	5	7	0	52	18
	66	137	38	28	4	1	3	51	12
	67	82	23	14	5	0	0	29	11
	68	72	20	21	3	3	0	18	7
	69	52	15	10	3	0	1	16	7
	70	42	7	13	1	0	1	16	4
	71	29	13	4	0	0	0	8	4
	72	21	8	2	2	1	0	7	1
	73	17	8	0	1	0	0	6	2
74	7	4	1	0	0	0	2	0	
75	12	1	3	1	0	0	5	2	
Over	75	16	7	3	2	1	0	2	1
Age Unknown		0	0	0	0	0	0	0	0
<b>Total</b>		<b>2,667</b>	<b>840</b>	<b>380</b>	<b>106</b>	<b>64</b>	<b>37</b>	<b>833</b>	<b>407</b>
<b>% of</b>									
<b>Total Males</b>		<b>100.00%</b>	<b>31.5%</b>	<b>14.2%</b>	<b>4.0%</b>	<b>2.4%</b>	<b>1.4%</b>	<b>31.2%</b>	<b>15.3%</b>

<sup>1</sup> Does not include formerly disabled members

<sup>2</sup> See Plan Summary for description of Joint and Survivor Annuities

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 10**

**Members Retired for Service  
 During 1998/99 Fiscal Year<sup>1</sup>**

Classified by Age and Joint & Survivor Annuity Option Elected<sup>2</sup>

		<b><u>FEMALE</u></b>							
		<u>Options</u>							
	<u>Age</u>	<u>Total</u>	<u>Unmod.</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Under	55	30	17	2	0	0	0	4	7
	55	234	141	7	5	0	0	35	46
	56	459	291	11	13	0	2	73	69
	57	297	183	11	8	0	1	47	47
	58	333	203	11	0	0	1	52	66
	59	340	202	8	6	1	2	65	56
	60	512	306	8	14	2	1	88	93
	61	544	325	17	11	1	1	85	104
	62	339	210	3	11	1	1	50	63
	63	280	177	4	6	0	0	44	49
	64	239	167	3	7	0	0	28	34
	65	222	151	4	4	1	1	25	36
	66	175	124	4	5	0	1	11	30
	67	145	104	2	2	1	0	17	19
	68	102	77	5	2	0	1	6	11
	69	76	60	3	2	0	0	5	6
	70	59	48	0	2	0	0	4	5
	71	64	49	0	3	1	0	5	6
	72	38	34	0	0	0	1	1	2
	73	27	20	1	2	0	0	2	2
	74	15	12	1	0	0	0	1	1
	75	19	14	0	3	0	0	2	0
Over	75	32	26	2	0	0	0	1	3
Age Unknown		0	0	0	0	0	0	0	0
	Total-	4,581	2,941	107	106	8	13	651	755
% of									
Total Females		100.00%	64.2%	2.3%	2.3%	.2%	.3%	14.2%	16.5%

<sup>1</sup> Does not include formerly disabled members

<sup>2</sup> See Plan Summary for description of Joint and Survivor Annuities

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
 POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)  
 November 17, 1999

**TABLE 10**

(CAFR)

**Members Retired for Service**

**During 1998/99 Fiscal Year<sup>1</sup>**

Classified by Age and Joint & Survivor Annuity Option Elected<sup>2</sup>

TOTAL

		<u>Options</u>							
	<u>Age</u>	<u>Total</u>	<u>Unmod.</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Under	55	41	21	5	0	0	0	6	9
	55	321	185	18	7	0	1	50	60
	56	631	366	35	19	1	5	111	94
	57	425	238	24	13	3	2	81	64
	58	494	261	27	5	3	6	96	96
	59	533	265	29	18	8	6	121	86
	60	844	403	58	23	7	8	197	148
	61	841	420	55	22	9	6	180	149
	62	610	289	35	23	13	4	140	106
	63	481	225	26	18	7	2	117	86
	64	414	205	24	12	5	1	93	74
	65	374	191	34	9	8	1	77	54
	66	312	162	32	9	1	4	62	42
	67	227	127	16	7	1	0	46	30
	68	174	97	26	5	3	1	24	18
	69	128	75	13	5	0	1	21	13
	70	101	55	13	3	0	1	20	9
	71	93	62	4	3	1	0	13	10
	72	59	42	2	2	1	1	8	3
73	44	28	1	3	0	0	8	4	
74	22	16	2	0	0	0	3	1	
75	31	15	3	4	0	0	7	2	
Over	75	48	33	5	2	1	0	3	4
Age Unknown		0	0	0	0	0	0	0	0
Total		7,248	3,781	487	212	72	50	1,484	1,162

<sup>1</sup> Does not include formerly disabled members

<sup>2</sup> See Plan Summary for description of Joint and Survivor Annuities

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
 POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)  
 November 17, 1999

**TABLE 11**  
 (CAFR)  
**Members Retired for Service Characteristics<sup>1</sup>**  
**By Year of Retirement**

Effective Date of Retirement by Service Credit	Number	Average of Retirements	Average Service Credit	Average Monthly Benefit	Average Final Compensation	Age At Retirement
<b>7/1/89 thru 6/30/90</b>		6,428	26.2	\$1,839	\$3,513	60.9
<b>7/1/90 thru 6/30/91</b>		7,712	26.9	\$1,813	\$3,748	61.3
<b>7/1/91 thru 6/30/92</b>		6,913	26.6	\$2,050	\$3,862	61.4
<b>7/1/92 thru 6/30/93</b>		7,780	26.8	\$2,153	\$3,960	61.3
<b>7/1/93 thru 6/30/94</b>		7,152	27.0	\$2,187	\$4,043	60.9
<b>7/1/94 thru 6/30/95</b>						
0 - 5		97	2.1	\$ 267	-	-
5 - 10		534	7.2	356	-	-
10 - 15		433	12.4	687	-	-
15 - 20		617	17.6	1,116	-	-
20 - 25		899	22.6	1,566	-	-
25 - 30		1,423	27.6	2,044	-	-
30 - 35		1,719	32.4	2,461	-	-
35 - 40		1,185	37.0	3,006	-	-
40 & over		233	42.7	3,669	-	-
Total		7,140	26.5	\$1,984	\$4,030	61.1
<b>7/1/95 thru 6/30/96</b>						
0 - 5		68	2.5	\$ 241	-	-
5 - 10		474	7.3	395	-	-
10 - 15		514	12.4	763	-	-
15 - 20		639	17.6	1,222	-	-
20 - 25		883	22.6	1,663	-	-
25 - 30		1,298	27.7	2,171	-	-
30 - 35		1,660	32.4	2,662	-	-
35 - 40		1,213	37.1	3,393	-	-
40 & over		236	42.1	4,107	-	-
Total		6,985	26.6	\$2,171	\$4,110	61.3

<sup>1</sup> Does not include formerly disabled members

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
November 17, 1999

**TABLE 11 (Continued)**  
**Members Retired for Service Characteristics<sup>1</sup>**  
**By Year of Retirement**

Effective Date of Retirement by <u>Service Credit</u>	Number of <u>Retirements</u>	Average of <u>Service Credit</u>	Average Monthly <u>Benefit</u>	Average Final <u>Compensation</u>	Age At <u>Retirement</u>
<b>7/1/96 thru 6/30/97</b>					
0 - 5	50	2.4	\$ 292	-	-
5 - 10	419	7.3	398	-	-
10 - 15	480	12.4	769	-	-
15 - 20	526	17.6	1,245	-	-
20 - 25	790	22.6	1,724	-	-
25 - 30	1,066	27.6	2,251	-	-
30 - 35	1,447	32.5	2,722	-	-
35 - 40	1,026	37.2	3,443	-	-
40 & over	207	42.0	4,080	-	-
Total	6,011	26.6	\$2,210	\$4,206	60.9
<b>7/1/97 thru 6/30/98</b>					
0 - 5	73	2.5	\$ 298	-	-
5 - 10	530	7.4	414	-	-
10 - 15	572	12.6	834	-	-
15 - 20	581	17.7	1,280	-	-
20 - 25	884	22.6	1,811	-	-
25 - 30	1,356	27.7	2,331	-	-
30 - 35	1,799	32.5	2,817	-	-
35 - 40	1,259	37.2	3,548	-	-
40 & over	278	42.0	4,251	-	-
Total	7,332	26.8	\$2,310	\$4,345	60.8
<b>7/1/98 thru 6/30/99</b>					
0 - 5	72	2.8	\$ 355	-	-
5 - 10	459	7.6	491	-	-
10 - 15	611	12.6	959	-	-
15 - 20	644	17.5	1,394	-	-
20 - 25	806	22.6	1,999	-	-
25 - 30	1,081	27.6	2,574	-	-
30 - 35	1,852	32.5	3,237	-	-
35 - 40	1,312	37.2	4,093	-	-
40 & over	411	42.6	5,147	-	-
Total	7,248	27.2	\$2,706	\$4,541	61.2

<sup>1</sup> Does not include formerly disabled members

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
 POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)  
 November 17, 1999

**TABLE 12**

**Members Retired for Service Classified by Years in Retirement<sup>1</sup>**

<u>MALE</u>						
<u>Years in Retirement</u>	<u>Count</u>	<u>Average Age at Retirement</u>	<u>Average Service Credit</u>	<u>Average Final Compensation</u>	<u>Average Unmodified Allowance<sup>2</sup></u>	<u>Average Allowance Payable<sup>3</sup></u>
Less than 1	2,667	61.6	30.260	\$4,833	\$3,240	\$2,989
1	2,657	60.9	29.854	4,607	2,789	2,559
2	2,226	61.0	28.715	4,518	2,667	2,494
3	2,650	60.8	29.238	4,452	2,647	2,530
4	2,716	61.0	28.931	4,339	2,522	2,452
5	2,822	60.8	29.295	4,397	2,580	2,568
6	3,186	61.2	29.463	4,306	2,550	2,572
7	2,718	61.2	28.997	4,164	2,437	2,484
8	3,109	61.0	29.044	4,015	2,353	2,448
9	2,625	60.6	27.634	3,803	2,111	2,325
10	2,692	60.7	27.733	3,552	1,936	2,152
11	2,363	60.6	27.168	3,362	1,834	2,091
12	2,538	60.5	27.544	3,216	1,763	2,022
13	1,981	60.2	27.345	2,974	1,584	1,838
14	2,262	60.3	27.355	2,827	1,524	1,769
15	2,370	60.2	26.099	2,651	1,357	1,586
16	2,148	60.3	26.162	2,536	1,304	1,539
17	1,764	59.9	26.289	2,351	1,227	1,463
18	1,599	59.8	25.286	2,131	1,058	1,282
19	1,398	59.6	24.234	1,994	950	1,162
20 and more	5,979	60.2	23.654	1,593	769	1,025
<b>Total</b>	<b>54,470</b>	<b>60.6<sup>4</sup></b>	<b>27.596<sup>4</sup></b>	<b>\$3,456<sup>4</sup></b>	<b>\$1,967<sup>4</sup></b>	<b>\$2,066<sup>4</sup></b>

<sup>1</sup> Does not include formerly disabled members

<sup>2</sup> Initial allowance before application of option factor

<sup>3</sup> Includes cumulative application of annual 2% benefit improvement factor

<sup>4</sup> Overall averages

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
 POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)  
 November 17, 1999

**TABLE 12**

**Members Retired for Service Classified by Years in Retirement<sup>1</sup>**

<b><u>FEMALE</u></b>						
<u>Years in Retirement</u>	<u>Count</u>	<u>Average Age at Retirement</u>	<u>Average Service Credit</u>	<u>Average Final Compensation</u>	<u>Average Unmodified Allowance<sup>2</sup></u>	<u>Average Allowance Payable<sup>3</sup></u>
Less than 1	4,581	60.9	25.415	\$4,371	\$2,394	\$2,335
1	4,635	60.7	25.036	4,196	2,104	2,043
2	3,747	60.7	23.897	4,034	1,987	1,968
3	4,179	60.9	24.074	3,892	1,923	1,948
4	4,220	60.9	24.359	3,839	1,899	1,959
5	4,122	61.0	24.583	3,851	1,900	2,005
6	4,232	61.2	24.429	3,750	1,837	1,972
7	3,783	61.0	24.162	3,666	1,803	1,961
8	4,091	61.4	24.677	3,564	1,784	1,981
9	3,246	61.0	22.860	3,298	1,543	1,788
10	3,387	61.0	22.940	3,093	1,414	1,662
11	2,796	60.8	22.145	2,917	1,331	1,601
12	2,965	60.7	22.041	2,758	1,238	1,499
13	2,785	60.6	22.739	2,507	1,123	1,378
14	2,893	60.6	22.677	2,381	1,063	1,324
15	2,931	60.5	22.489	2,250	990	1,254
16	2,870	60.7	22.374	2,134	950	1,222
17	2,508	60.5	21.766	1,940	855	1,115
18	2,429	60.5	21.341	1,798	780	1,037
19	2,312	60.3	21.101	1,648	703	953
20 and more	19,127	60.7	21.386	1,171	507	768
<b>Total</b>	<b>87,839</b>	<b>60.8<sup>4</sup></b>	<b>23.053<sup>4</sup></b>	<b>\$2,810<sup>4</sup></b>	<b>\$1,347<sup>4</sup></b>	<b>\$1,520<sup>4</sup></b>

<sup>1</sup> Does not include formerly disabled members

<sup>2</sup> Initial allowance before application of option factor

<sup>3</sup> Includes cumulative application of annual 2% benefit improvement factor

<sup>4</sup> Overall averages

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
 POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)  
 November 17, 1999

**TABLE 12**

**Members Retired for Service Classified by Years in Retirement<sup>1</sup>**

<u>Years in Retirement</u>	<u>Count</u>	<u>Average Age at Retirement</u>	<u>TOTAL</u>			
			<u>Average Service Credit</u>	<u>Average Final Compensation</u>	<u>Average Unmodified Allowance<sup>2</sup></u>	<u>Average Allowance Payable<sup>3</sup></u>
Less than 1	7,248	61.2	27.198	\$4,541	\$2,706	\$2,575
1	7,292	60.8	26.791	4,346	2,354	2,231
2	5,973	60.8	25.693	4,214	2,241	2,164
3	6,829	60.9	26.078	4,109	2,204	2,174
4	6,936	61.0	26.149	4,035	2,143	2,152
5	6,944	60.9	26.498	4,073	2,177	2,234
6	7,418	61.2	26.591	3,989	2,143	2,230
7	6,501	61.1	26.183	3,874	2,068	2,180
8	7,200	61.2	26.563	3,759	2,030	2,182
9	5,871	60.8	24.995	3,524	1,797	2,028
10	6,079	60.9	25.063	3,296	1,645	1,879
11	5,159	60.7	24.446	3,121	1,561	1,826
12	5,503	60.6	24.579	2,969	1,480	1,741
13	4,766	60.5	24.654	2,701	1,314	1,569
14	5,155	60.4	24.730	2,577	1,265	1,519
15	5,301	60.4	24.103	2,429	1,154	1,403
16	5,018	60.5	23.995	2,306	1,101	1,358
17	4,272	60.3	23.634	2,110	1,008	1,259
18	4,028	60.2	22.907	1,930	890	1,134
19	3,710	60.0	22.282	1,779	796	1,032
20 and more	25,106	60.6	21.926	1,272	569	829
<b>Total</b>	<b>142,309</b>	<b>60.7<sup>4</sup></b>	<b>24.792<sup>4</sup></b>	<b>\$3,057<sup>4</sup></b>	<b>\$1,584<sup>4</sup></b>	<b>\$1,729<sup>4</sup></b>

<sup>1</sup> Does not include formerly disabled members

<sup>2</sup> Initial allowance before application of option factor

<sup>3</sup> Includes cumulative application of annual 2% benefit improvement factor

<sup>4</sup> Overall averages



CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
 POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)  
 November 17, 1999

**TABLE 13**

**Characteristics of Members Going on Disability**

Fiscal Year Ending <u>June 30</u>	<u>Count</u>	<u>MALE</u>			
		Disability Allowance <u>Payable</u>	Service <u>Credit</u>	Final <u>Compensation</u>	Age at <u>Disability</u>
1990	76	\$1,726	18.522	\$3,214	50.2
1991	108	1,861	19.709	3,320	50.4
1992	111	1,894	17.637	3,468	49.2
1993	116	1,909	16.340	3,314	50.8
1994	151	1,995	17.754	3,948	51.2
1995	132	1,893	16.764	3,821	52.1
1996	144	1,953	16.514	3,767	51.7
1997	131	2,097	16.949	4,091	51.9
1998	126	2,040	14.400	4,557	51.4
1999	103	2,330	16.955	4,198	53.9

Fiscal Year Ending <u>June 30</u>	<u>Count</u>	<u>FEMALE</u>			
		Disability Allowance <u>Payable</u>	Service <u>Credit</u>	Final <u>Compensation</u>	Age at <u>Disability</u>
1990	160	\$1,634	16.595	\$3,108	49.8
1991	198	1,651	16.387	3,101	50.0
1992	187	1,834	17.831	3,404	50.3
1993	272	1,767	17.155	3,294	50.1
1994	317	1,743	15.130	3,546	51.5
1995	337	1,834	15.581	3,591	50.9
1996	352	1,821	15.722	3,590	52.0
1997	333	1,854	15.154	3,802	52.1
1998	325	1,972	15.345	3,888	52.5
1999	311	2,042	15.192	3,970	51.6

Note--some data are updated in the following year to include late approvals of disability applications.

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 13**  
 (CAFR)

**Characteristics of Members Going on Disability**

**TOTAL**

Fiscal Year Ending <u>June 30</u>	<u>Count</u>	Disability Allowance <u>Payable</u>	Service <u>Credit</u>	Final <u>Compensation</u>	Age at <u>Disability</u>
1990	236	\$1,664	17.215	\$3,142	49.9
1991	306	1,725	17.559	3,178	50.1
1992	298	1,856	17.759	3,428	49.9
1993	388	1,809	16.014	3,300	50.3
1994	468	1,824	15.977	3,676	51.4
1995	469	1,851	15.914	3,656	51.3
1996	496	1,859	15.952	3,641	51.9
1997	464	1,923	15.660	3,883	52.0
1998	451	1,989	14.446	3,906	52.3
1999	414	2,114	15.630	4,027	52.2

Note--some data are updated in the following year to include late approvals of disability applications.

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)  
November 17, 1999

**TABLE 14**  
(CAFR)

**Number of Benefit Recipients by Type of Benefit**

<u>Year Ending June 30</u>	<u>Service Retirement</u>	<u>Disability Benefits</u>	<u>Benefits for Survivors</u>	<u>Total Benefit Recipients</u>
1990	110,465	4,830	7,941	123,236
1991	115,010	4,872	8,292	128,174
1992	118,963	4,914	8,634	132,511
1993	122,762	4,879	9,346	136,987
1994	126,476	5,126	10,271	141,873
1995	130,576	5,331	10,898	146,805
1996	133,764	5,540	11,501	150,805
1997	135,809	5,676	12,154	153,639
1998	139,193	5,758	12,796	157,747
1999	142,309	5,822	13,326	161,457

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 15**

**Refunds of Member Contributions and Interest**  
 Characteristics by Fiscal Year and Service Credit

**MALE**

Fiscal Year	<u>From Active Status</u>			<u>From Inactive Status<sup>1</sup></u>			<u>Average Contributions</u>	<u>Total Count</u>
	<u>Count by Amount of Service Credit</u>		<u>Average Service Credit</u>	<u>Count by Amount of Service Credit</u>		<u>Average Service Credit</u>		
	<u>&lt;5</u>	<u>5+</u>		<u>&lt;5</u>	<u>5+</u>			
1991-1992	1,433	286	3.146	239	72	4.000	\$8,506	2,030
1992-1993	1,348	312	3.576	1,428	101	1.577	6,595	3,189
1993-1994	1,078	304	3.715	700	76	2.095	8,695	2,158
1994-1995	966	313	3.681	1,185	116	1.853	7,719	2,580
1995-1996	987	299	3.562	775	123	2.434	9,439	2,184
1996-1997	845	229	3.413	647	140	2.606	9,795	1,861
1997-1998	1,202	249	2.905	667	130	2.630	9,043	2,248
1998-1999	1,258	232	3.047	642	120	2.640	9,949	2,252

<sup>1</sup> Status is determined as of the end of the previous fiscal year. Inactive Status describes a member who has not contributed during that previous fiscal year.

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 15**

**Refunds of Member Contributions and Interest**  
 Characteristics by Fiscal Year and Service Credit

**FEMALE**

Fiscal Year	<u>From Active Status</u>			<u>From Inactive Status<sup>1</sup></u>			Average Contributions	Total Count
	Count by Amount of Service Credit		Average Service Credit	Count by Amount of Service Credit		Average Service Credit		
	<5	5+		<5	5+			
1991-1992	2,622	516	3.084	644	257	4.172	\$8,204	4,039
1992-1993	2,311	508	3.245	2,651	380	2.435	6,599	5,850
1993-1994	1,910	556	3.670	1,472	245	2.745	8,810	4,183
1994-1995	1,738	529	3.752	2,400	421	2.556	8,024	5,088
1995-1996	1,619	527	3.709	1,807	412	3.024	9,542	4,365
1996-1997	1,380	457	3.722	1,517	407	3.369	10,860	3,761
1997-1998	1,719	428	3.100	1,399	392	3.365	10,213	3,938
1998-1999	2,041	409	3.105	1,368	368	3.277	10,513	4,186

<sup>1</sup> Status is determined as of the end of the previous fiscal year. Inactive Status describes a member who has not contributed during that previous fiscal year.

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM  
**POPULATION INFORMATION FOR FISCAL YEAR 1998-1999 (As of JUNE 30, 1999)**  
 November 17, 1999

**TABLE 15**

**Refunds of Member Contributions and Interest**  
 Characteristics by Fiscal Year and Service Credit

**TOTAL**

Fiscal Year	<u>From Active Status</u>			<u>From Inactive Status<sup>1</sup></u>			<u>Average Contributions</u>	<u>Total Count</u>
	<u>Count by Amount of Service Credit</u>		<u>Average Service Credit</u>	<u>Count by Amount of Service Credit</u>		<u>Average Service Credit</u>		
	<u>&lt;5</u>	<u>5+</u>		<u>&lt;5</u>	<u>5+</u>			
1991-1992	4,055	802	3.106	883	329	4.128	\$8,305	6,069
1992-1993	3,659	820	3.368	4,079	481	2.147	6,597	9,039
1993-1994	2,988	860	3.687	2,172	321	2.543	8,771	6,341
1994-1995	2,704	842	3.727	3,585	537	2.334	7,921	7,668
1995-1996	2,606	826	3.654	2,582	535	2.854	9,508	6,549
1996-1997	2,225	686	3.608	2,164	547	3.147	10,507	5,622
1997-1998	2,921	677	3.022	2,066	522	3.139	9,788	6,186
1998-1999	3,299	641	3.083	2,010	488	3.083	10,316	6,438

<sup>1</sup> Status is determined as of the end of the previous fiscal year. Inactive Status describes a member who has not contributed during that previous fiscal year.