## ECONOMIC IMPACT STATEMENT

<table>
<thead>
<tr>
<th>DEPARTMENT NAME</th>
<th>CONTACT PERSON</th>
<th>EMAIL ADDRESS</th>
<th>TELEPHONE NUMBER</th>
<th>NOTICE FILE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA State Teachers' Retirement System</td>
<td>Ellen Maurizio</td>
<td><a href="mailto:regulations@calstrs.com">regulations@calstrs.com</a></td>
<td>916-414-1995</td>
<td>Z 2013-1210-04</td>
</tr>
</tbody>
</table>

**DESCRIPTIVETITLEFROMNOTICEREGISTERORFORM400**
Creditable compensation

### A. ESTIMATED PRIVATE SECTOR COST IMPACTS

Include calculations and assumptions in the rulemaking record.

1. Check the appropriate box(es) below to indicate whether this regulation:
   - Impact business and/or employees
   - Impacts small businesses
   - Impacts jobs or occupations
   - Impacts California competitiveness
   - Imposes reporting requirements
   - Imposes prescriptive instead of performance
   - Impacts individuals
   - None of the above (Explain below):

   See "C. ESTIMATED BENEFITS"

   *If any box in Items 1 a through g is checked, complete this Economic Impact Statement. If box in Item 1.h. is checked, complete the Fiscal Impact Statement as appropriate.*

2. The **CA State Teachers' Retirement System** estimates that the economic impact of this regulation (which includes the fiscal impact) is:
   - Below $10 million
   - Between $10 and $25 million
   - Between $25 and $50 million
   - Over $50 million [If the economic impact is over $50 million, agencies are required to submit a Standardized Regulatory Impact Assessment as specified in Government Code Section 11346.3(c)].

3. Enter the total number of businesses impacted: 0

4. Enter the number of businesses that will be created: 0 eliminated: 0

5. Indicate the geographic extent of impacts: **Statewide**
   - Local or regional (List areas): 

6. Enter the number of jobs created: 400 and eliminated: 0

   Describe the types of jobs or occupations impacted: Primarily, the change affects the education profession with 279 jobs created, with induced effects to the economy of 121 jobs created.

7. Will the regulation affect the ability of California businesses to compete with other states by making it more costly to produce goods or services here?  
   - YES  
   - NO

   If YES, explain briefly: }

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PAGE 1
B. ESTIMATED COSTS Include calculations and assumptions in the rulemaking record.

1. What are the total statewide dollar costs that businesses and individuals may incur to comply with this regulation over its lifetime? $0
   a. Initial costs for a small business: $ ____________  Annual ongoing costs: $ ____________  Years: ____________
   b. Initial costs for a typical business: $ ____________  Annual ongoing costs: $ ____________  Years: ____________
   c. Initial costs for an individual: $ ____________  Annual ongoing costs: $ ____________  Years: ____________
   d. Describe other economic costs that may occur: ____________________________________________________________

2. If multiple industries are impacted, enter the share of total costs for each industry: n/a

3. If the regulation imposes reporting requirements, enter the annual costs a typical business may incur to comply with these requirements. Include the dollar costs to do programming, record keeping, reporting, and other paperwork, whether or not the paperwork must be submitted. $n/a

4. Will this regulation directly impact housing costs? □ YES  □ NO
   If YES, enter the annual dollar cost per housing unit: $ ____________________________
   Number of units: ____________________________

5. Are there comparable Federal regulations? □ YES  □ NO
   Explain the need for State regulation given the existence or absence of Federal regulations: CalSTRS is a California-specific retirement system.

   Enter any additional costs to businesses and/or individuals that may be due to State - Federal differences: $0

C. ESTIMATED BENEFITS Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.

1. Briefly summarize the benefits of the regulation, which may include among others, the health and welfare of California residents, worker safety and the State’s environment: See Attachment 1.

2. Are the benefits the result of: □ specific statutory requirements, or □ goals developed by the agency based on broad statutory authority?
   Explain: The regulations provide guidance to employers to report creditable compensation in a consistent manner.

3. What are the total statewide benefits from this regulation over its lifetime? $ Not estimated

4. Briefly describe any expansion of businesses currently doing business within the State of California that would result from this regulation: n/a

D. ALTERNATIVES TO THE REGULATION Include calculations and assumptions in the rulemaking record. Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.

1. List alternatives considered and describe them below. If no alternatives were considered, explain why not: See Attachment 1.
2. Summarize the total statewide costs and benefits from this regulation and each alternative considered:

   Regulation: Benefit: $ See Attachmt 1  Cost: $ See Attachmt 1
   Alternative 1: Benefit: $ See Attachmt 1  Cost: $ See Attachmt 1
   Alternative 2: Benefit: $ _____________ Cost: $ _____________

3. Briefly discuss any quantification issues that are relevant to a comparison of estimated costs and benefits for this regulation or alternatives: See Attachment 1.

4. Rulemaking law requires agencies to consider performance standards as an alternative, if a regulation mandates the use of specific technologies or equipment, or prescribes specific actions or procedures. Were performance standards considered to lower compliance costs? □ YES  □ NO

   Explain: n/a

E. MAJOR REGULATIONS Include calculations and assumptions in the rulemaking record.

   California Environmental Protection Agency (Cal/EPA) boards, offices and departments are required to submit the following (per Health and Safety Code section 57005). Otherwise, skip to E4.

1. Will the estimated costs of this regulation to California business enterprises exceed $10 million? □ YES  □ NO

   If YES, complete E2. and E3
   If NO, skip to E4

2. Briefly describe each alternative, or combination of alternatives, for which a cost-effectiveness analysis was performed:

   Alternative 1:

   Alternative 2:

   (Attach additional pages for other alternatives)

3. For the regulation, and each alternative just described, enter the estimated total cost and overall cost-effectiveness ratio:

   Regulation: Total Cost $ ________________ Cost-effectiveness ratio: $ ________________
   Alternative 1: Total Cost $ ________________ Cost-effectiveness ratio: $ ________________
   Alternative 2: Total Cost $ ________________ Cost-effectiveness ratio: $ ________________

4. Will the regulation subject to OAL review have an estimated economic impact to business enterprises and individuals located in or doing business in California exceeding $50 million in any 12-month period between the date the major regulation is estimated to be filed with the Secretary of State through 12 months after the major regulation is estimated to be fully implemented? □ YES  □ NO

   If YES, agencies are required to submit a Standardized Regulatory Impact Assessment (SRIA) as specified in Government Code Section 11346.3(c) and to include the SRIA in the Initial Statement of Reasons.

5. Briefly describe the following:

   The increase or decrease of investment in the State: _________________________________

   The incentive for innovation in products, materials or processes: _________________________________

   The benefits of the regulations, including, but not limited to, benefits to the health, safety, and welfare of California residents, worker safety, and the state's environment and quality of life, among any other benefits identified by the agency: _________________________________
FISCAL IMPACT STATEMENT

A. FISCAL EFFECT ON LOCAL GOVERNMENT  Indicate appropriate boxes 1 through 6 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.

☐ 1. Additional expenditures in the current State Fiscal Year which are reimbursable by the State. (Approximate) (Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

$ __________________________________________

☐ a. Funding provided in __________________________________________________________

Budget Act of _______________ or Chapter ___________ , Statutes of ________________

☐ b. Funding will be requested in the Governor's Budget Act of ____________________________

Fiscal Year: ________________________________

☐ 2. Additional expenditures in the current State Fiscal Year which are NOT reimbursable by the State. (Approximate) (Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

$ __________________________________________

Check reason(s) this regulation is not reimbursable and provide the appropriate information:

☐ a. Implements the Federal mandate contained in ________________________________________

☐ b. Implements the court mandate set forth by the __________________________________________

Case of: __________________________________________ vs. ____________________________

☐ c. Implements a mandate of the people of this State expressed in their approval of Proposition No. __________________________________________

Date of Election: ____________________________

☐ d. Issued only in response to a specific request from affected local entity(s).

Local entity(s) affected: ______________________________________________________________

☐ e. Will be fully financed from the fees, revenue, etc. from: ______________________________

Authorized by Section: ____________________________ of the ____________________________ Code;

☐ f. Provides for savings to each affected unit of local government which will, at a minimum, offset any additional costs to each;

☐ g. Creates, eliminates, or changes the penalty for a new crime or infraction contained in __________________________________________

☒ 3. Annual Savings. (approximate)

$ See Attachment 1. ____________________________________________

☐ 4. No additional costs or savings. This regulation makes only technical, non-substantive or clarifying changes to current law regulations.

☐ 5. No fiscal impact exists. This regulation does not affect any local entity or program.

☐ 6. Other. Explain ________________________________________________________________
The figure attests that the agency has completed the STD. 399 according to the instructions in SAM sections 6601-6616, and understands the impact of the proposed rulemaking. State boards, offices, or departments not under an Agency Secretary must have the form signed by the highest ranking official in the organization.

Finance approval and signature is required when SAM sections 6601-6616 require completion of Fiscal Impact Statement in the STD. 399.
Economic and Fiscal Impact Statement

C. ESTIMATED BENEFITS

1. Briefly summarize the benefits of the regulation, which may include among others, the health and welfare of California residents, worker safety and the State’s environment:

The regulations will not affect the creation, expansion or elimination of businesses within the state. The regulations will have no effect on the health and welfare of California residents, worker safety and the state’s environment. However, the regulations will have direct and induced economic effects that will positively influence the economy in 2015.

Benefit to active members and local government

The direct effects on active members and local government using the assumptions described below in 2015 are as follows:

- Benefit to active members: $10,059,042
- Benefit to local government finances: $12,221,467

While businesses are not directly affected by these regulations, there is an induced effect on business enterprises in California. The economic impact of these regulations has an effect on nearly all economic sectors in the state.

The economic impact during the first 12 months following implementation will stem from increases to CalSTRS active members’ pre-tax compensation and increased local government finances resulting from reduced contributions to CalSTRS. Economic impact was estimated using economic modeling software. Pre-tax compensation was first reduced by $2.2 million (to account for contributions to CalSTRS on the savings to local government) and then modeled as an employee compensation increase in the state and local government (education) sector. This yielded total economic output of $42.4 million, as shown in the summary table below.

<table>
<thead>
<tr>
<th>Economic Impact</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Effect</td>
<td>23,470,553.20</td>
</tr>
<tr>
<td>Induced Effect</td>
<td>18,924,943.60</td>
</tr>
<tr>
<td>Total Effect</td>
<td>$42,395,496.80</td>
</tr>
</tbody>
</table>

1 IMPLAN Group, LLC, IMPLAN System (data and software), 16740 Birkdale Commons Parkway, Suite 206, Huntersville, NC 28078, www.IMPLAN.com.
Methodology

Compensation that is currently reported as “special compensation” (compensation that is reported to CalSTRS without being associated with additional service credit) can be reported in one of four ways going forward:

<table>
<thead>
<tr>
<th>Reporting Method</th>
<th>Contributions Credited to Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Part of salary</td>
<td>DB (DBS if inconsistent)</td>
</tr>
<tr>
<td>2. No change – remains special compensation</td>
<td>DB</td>
</tr>
<tr>
<td>3. An additional assignment</td>
<td>DBS (DB if less than one year of service credit)</td>
</tr>
<tr>
<td>4. Noncreditable – not reported</td>
<td>Neither DB nor DBS (remains in take-home pay)</td>
</tr>
</tbody>
</table>

Because of the lack of detailed information regarding pay types currently distributed and how contracts may be drawn in the future, a range encompassing the most extreme possible outcomes is provided in the accompanying letter from CalSTRS consulting actuary, Milliman.²

The estimated impact of the regulations on special compensation encompasses a very broad range, and the actual amount of the impact would be within that range. Based on discussions with employers on the nature of special compensation, and how such compensation would be credited under the regulations, CalSTRS used the following assumptions that would result in the maximum reasonably anticipated economic impact by dividing the maximum value of the range into thirds:

- One-third would become noncreditable;
- One-third would become creditable to the Defined Benefit Supplement (DBS) Program; and
- One-third would remain creditable to the Defined Benefit (DB) Program, either as special compensation or through being structured permanently into salary.

These ratios give a better idea of possible outcome than focusing on either the minimum or maximum of the range alone. CalSTRS believes the numbers that result when the ratios are applied to the maximum range of special compensation are reasonable based on employer-provided data regarding the use of the “special compensation” reporting category. A summary of employer-provided pay types³ currently in use and implications for each under the regulations are described below in detail.

² At a minimum, the range assumes all contracts are redrawn to maintain creditability of all pay types at their current levels, with a reduction of $17.5 million in creditable compensation from cash in lieu; and at the other extreme, the maximum value of the range represents savings if all special compensation currently being reported for allowances and other payments were to become completely noncreditable.

³ Information provided by a variety of employers, including county offices of education and community college and school district employers, during a series of six pre-notice information gathering sessions conducted by CalSTRS in July and August 2013.
Current and future reporting and creditability of certain pay types

Some pay types (including allowances for cars, cell phones or housing, which are typically paid to administrators, and cash paid in lieu of benefits, which are paid more broadly to employees at all levels) are not creditable under the regulations. If these pay types are permanently restructured into salary, they will remain creditable to the DB Program moving forward, and there would be no resulting economic effect from the regulations. To the extent these pay types are not restructured into salary, this will represent an increase in take-home pay to affected members because no contributions will be due on these payments as well as corresponding savings to the employer and the state.

Employers have also reported some types of pay as “special compensation” that would be more appropriately reported through other means. Prior to these regulations becoming effective, employers were permitted to report additional duties, such as club advisor or coach, as special compensation in limited circumstances where the employer has provided release time from the regular full-time assignment. The practice of reporting this pay as special compensation will be discontinued under these regulations. Any additional pay associated with an assignment is reportable as salary, meaning that it will be associated with earning service credit. Depending upon the specific circumstances, employers may opt to establish a new class of employees performing these duties, in which case, there will be no effect on the member’s take-home pay or benefits, nor on the obligation of the employer or the state. However, to the extent that a new class of employees is not established and these assignments are performed by individuals who are already earning their full-time pay, this represents a small increase in take-home pay to affected members because the contribution to the DBS Program is lower than the DB Program contribution. It represents savings to employers for the same reason, and more significant savings to the state because the state does not pay contributions for compensation that is credited to the DBS Program.

Several employers reported paying counselors, librarians, psychologists and other non-teaching staff a pay differential in accordance with the salary schedule for those positions. This pay differential has been reported as special compensation by several employers CalSTRS spoke with. The regulations clarify that the pay associated with these positions is salary. This is merely a reporting method change and will have no effect on the member’s take-home pay or benefits, nor on the obligation of the employer or the state.

Employers reported other types of pay for such things as being bilingual, possessing an advanced degree or obtaining longevity that will continue to be reported as remuneration in addition to salary under the regulations. This will have no effect on the member’s take-home pay or benefits, nor on the obligation of the employer or the state.

Assumptions used

For purposes of accounting for the mid-calendar year contribution rate increase, compensation is presumed to be level throughout the calendar year.
Direct, indirect and induced economic effects were assessed using IMPLAN 2014, with all active member and employer savings input as “Employment and payroll (state and local government, education)” with an event year of 2015. This is a reasonable assumption based on the nature of collective bargaining.

All data includes 2% at 62 and 2% at 60 members as those populations are currently comingled in CalSTRS population statistics data. This would tend to overinflate assumptions related to the impact, but the effect is minor since currently the 2% at 62 member population (new members hired on or after January 1, 2013) is much smaller than the 2% at 60 population affected by the regulations.

D. ALTERNATIVES TO THE REGULATION

1. List alternatives considered and describe them below. If no alternatives were considered, explain why not:

The alternative CalSTRS considered to the regulation was to continue to determine whether or not a class of employees was valid, creditability of compensation and the appropriate crediting of contributions to the DBS account on a case-by-case basis. CalSTRS determined that there was inconsistent understanding as to the requirements in the law, that it would benefit employers to provide additional guidance, and that the only effective way to ensure reporting requirements are consistently understood is by clarifying them through regulation. CalSTRS concluded that clarifying its standards for determining inconsistent treatment of compensation and establishing a consistent formula to be used in cases of inconsistent treatment through regulation would be the most effective method to implement this authority with transparency and equity.

2. Summarize the total statewide costs and benefits from this regulation and each alternative considered:

During the first 12 months of implementation, the following costs and benefits are estimated:

<table>
<thead>
<tr>
<th></th>
<th>Benefit</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation</td>
<td>Benefit to active members: $10.1 million</td>
<td>$0 in 20154</td>
</tr>
<tr>
<td></td>
<td>Benefit to local government: $12.2 million</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total direct and induced effect on California economy: $42.4 million</td>
<td></td>
</tr>
<tr>
<td>Alternative 1</td>
<td>No benefits identified</td>
<td>No costs identified</td>
</tr>
</tbody>
</table>

4 There will ultimately be a cost to active members as they retire, in the form of reduced benefits. Because the regulations begin affecting creditable compensation on January 1, 2015, there is a minimal impact to those who retire over the course of that year due to the reduction in final compensation. However, no benefits will be calculated based on a final compensation period that is fully covered under the regulations until 2016. CalSTRS estimates a per-member cost impact of as much as a $140 reduction on a typical annual DB allowance in 2016 (which will be increasingly offset in future years to the extent members’ pay that is currently reported to the DB Program is credited to the DBS Program during the course of their careers).
3. Briefly discuss any quantification issues that are relevant to a comparison of estimated costs and benefits for this regulation or alternatives:

Because adjustments are currently performed on a case-by-case basis, it is not possible to project specific benefits or costs associated with determination of creditability of compensation or the appropriate crediting of contributions to the DBS account on a case-by-case basis relative to the regulations.

Fiscal Impact Statement

A. FISCAL EFFECT ON LOCAL GOVERNMENT

3. Annual Savings.

Savings to school employers:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Estimated Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014–15</td>
<td>$0.8-15.0 million</td>
</tr>
<tr>
<td>2015–16</td>
<td>$2.0-36.4 million</td>
</tr>
<tr>
<td>2016–17</td>
<td>$2.4-42.8 million</td>
</tr>
<tr>
<td>2017–18</td>
<td>$2.7-49.4 million</td>
</tr>
</tbody>
</table>

As described under the Economic Impact Statement, the above ranges describe a minimum and maximum upper limit of anticipated savings. Using the assumption that the maximum currently reported special compensation will ultimately be one-third credited to the DB Program, one-third credited to the DBS Program, and one-third not creditable, savings by employers each fiscal year would be between the lower third and increasing toward the lower half of the above ranges (savings of one-third from noncreditable compensation, and higher savings each year due to DBS contributions at a relatively lower rate year-over-year).

School employers contribute a percentage of creditable compensation to CalSTRS. The percentage payable for compensation that is creditable to the DB Program is scheduled to increase during the next six fiscal years, from its current level of 8.88 percent to 19.1 percent effective July 1, 2020, under recent legislation (Chapter 47, Statutes of 2014).

The definitions of “fringe benefit” and “expenses paid or reimbursed by an employer” in the regulations, which include cash paid in lieu of fringe benefits or expenses, signify a reduction to compensation that employers may be currently reporting as creditable. This is expected to result in savings to school employers (as well as the state) since contributions will not be remitted to CalSTRS for the following types of pay:

- *Cash in lieu provided to employees who opt out of receiving benefits*. These payments cannot be restructured into creditable compensation because they are offered only to those who opt out of a fringe benefit.
• Compensation that could otherwise be provided in the form of a fringe benefit, such as car and housing allowances. As discussed in detail in the Economic Impact Statement, these payments can be restructured in a written contractual agreement so that they are reportable going forward—for example, they can be rolled permanently into salary. This, together with lack of visibility as to the extent to which employers are currently reporting these allowances as creditable, makes it challenging to predict the exact effect of this change.

In addition, the regulations clarify that “salary” is paid for the performance of service, and employers must establish a compensation earnable for all assignments in which a member earns salary. This means that “special compensation” (compensation that is reported to CalSTRS without being associated with additional service credit) can only be reported for compensation that is not associated with the performance of additional service. Effectively, this means that special compensation will be more likely to bring full-time employees above 1.0 years of service during a school year, which is the maximum amount creditable to the DB Program. This represents savings to members, school employers and the state. Any contributions above 8 percent for members and 8.25 percent for employers that is remitted for compensation paid for service in excess of 1.0 year will be returned to the employer and to the member.

An attached letter from CalSTRS consulting actuary, Milliman, describes assumptions used in detail. Data from two sources was provided to Milliman:

• The California Department of Education’s annual report Salary and Benefits Schedule for the Certificated Bargaining Unit (Form J-90) for 2012–13\(^5\): This dataset was filtered for insurance carrier fields labeled with “Cash in lieu” or similar text. This allowed staff to approximate the value of cash in lieu paid that year by California K-12 school employers. A minimum savings estimate was deduced on the assumption that employers have been consistently reporting that compensation as creditable.

• Information from CalSTRS: The total of all “special compensation” credited to the DB Program in 2012–13.

B. FISCAL EFFECT ON STATE GOVERNMENT

\(^4\) 4. Other.

Savings to the state:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Estimated Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014–15</td>
<td>$0</td>
</tr>
<tr>
<td>2015–16</td>
<td>$0</td>
</tr>
<tr>
<td>2016–17</td>
<td>$0.6-10.7 million</td>
</tr>
<tr>
<td>2017–18</td>
<td>$1.2-21.4 million</td>
</tr>
</tbody>
</table>

\(^5\) A voluntary survey of K-12 school employers conducted each year. According to the California Department of Education website, for 2012–13, the survey results represented employers covering 98.6 percent of the state's K-12 average daily attendance. However, it does not include data for any community college employers.
As described under the Economic Impact Statement, the above ranges describe a minimum and maximum upper limit of anticipated savings. Using the assumption that the maximum currently reported special compensation will ultimately be one-third credited to the DB Program, one-third credited to the DBS Program, and one-third not creditable, savings by the state each fiscal year would be in the upper half of the above ranges, at 66 2/3 percent of the maximum value in each range.

The state contributes a percentage of compensation credited the DB Program. The percentage payable for compensation that is creditable to the DB Program is scheduled to increase during the next three fiscal years up to a total of 8.828 percent effective July 1, 2016, under recent legislation (Chapter 47, Statutes of 2014). The state’s annual contribution to CalSTRS is based on payroll from two years prior. These regulations would be effective on January 1, 2015. Therefore, there are no anticipated annual savings to the state during the current or the next fiscal year.

As described under “A. FISCAL EFFECT ON LOCAL GOVERNMENT,” clarification of the definitions of “fringe benefit” and “expenses paid or reimbursed by an employer” is expected to result in a decrease in total creditable compensation, which would reduce the state’s projected required contribution.

Clarification that “salary” is paid for performance of service is expected to result in additional savings to the state:

- The state does not pay any contribution for compensation that is creditable to the DBS Program. To the extent that additional compensation is reported as “salary” and that compensation brings a full-time member above 1.0 years of service, the subsequent state payment will not be based on the amount of compensation earned above that first 1.0 years of service.

- The long-term obligations of the DB Program decline with reductions in compensation credited to that program. As a member’s creditable compensation is reduced, particularly final compensation upon which the retirement benefit is based, the resulting reduction to the unfunded actuarial obligation represents long-term savings to both employers and the state.

An estimated reduction to the unfunded actuarial obligation of between $67 million and $1.2 billion over a 30-year period represents the long-term savings to the fund.

Training for CalSTRS staff and school employers and updates to employer tools and resources will be required, but these activities and associated costs are part of regular business and will be absorbed by the existing CalSTRS budget.

See attached letter from Milliman for detailed assumptions.
August 13, 2014

Teachers’ Retirement Board
California State Teachers’ Retirement System

Re: Estimated Cost of Cash in Lieu of Benefits and Other Special Compensation

Dear Members of the Board:

As requested, we have estimated the potential impact to the California State Teachers’ Retirement System (CalSTRS) if cash in lieu of benefits and other special compensation were no longer included as creditable compensation. This potential change is assumed to apply to all current members of the Defined Benefit (DB) Program under the 2% at 60 benefit formula.

Cash in Lieu of Benefits
Currently, if members elect to receive cash in lieu of certain benefits, the cash received is counted as creditable compensation under the DB Program. Under the current proposal, such compensation, as well as certain other special compensation, would no longer be considered creditable compensation for purposes of the DB Program. Therefore, these payments would not be included in the final compensation used to determine annuity benefits. Members and employers would not make contributions on this compensation, or else their contributions would go to the Defined Benefit Supplement (DBS) Program.

This change is assumed to apply only to members under the 2%@60 formula, consistent with the language of the proposed regulations. For purposes of this study, we have calculated the impact to CalSTRS if the change were made as of the most recent valuation date (June 30, 2013) and have reflected the scheduled contribution rate increases adopted under Assembly Bill 1469.

The calculations in this letter are based on data provided to us regarding total cash in lieu of benefits and other special compensation in the 2012-2013 year, and assume that this year is representative of typical annual cash-in-lieu and other applicable special compensation payments.

Estimated Savings of Eliminating Cash in Lieu and Certain Other Special Compensation
We have calculated the cost/(savings if cash in lieu of benefits) and certain other special compensation were no longer considered as creditable compensation. Based on information provided by CalSTRS staff, total cash in lieu of benefits and other special compensation in 2012-2013 credited to the DB Program was approximately $323 million. This represents about 1.3% of the overall payroll for active CalSTRS members. For cash in lieu of benefits only, this was estimated to be $17.5 million, or about 0.07% of the total payroll.
If cash in lieu of benefits and certain other special compensation were eliminated from creditable compensation, the Actuarial Obligation (AO), and consequently the Unfunded AO (UAO), of the DB Program would decrease slightly, since the pay on which benefits is calculated would be lower. CalSTRS would also have a smaller payroll on which to collect contributions and would therefore receive slightly less in contributions as a result of this change.

As it is unclear how much of the $323 million would remain with the DB Program, move to the DBS Program, or be excluded entirely, it is not feasible to give a specific estimate of potential cost impact. Therefore, we have shown the minimum (all special compensation except cash-in-lieu remains with the DB Program) and maximum (all special compensation including cash-in-lieu is excluded) expected impact. The following table shows these minimum and maximum expected ranges.

The maximum change in the Funded Ratio as of June 30, 2013 is expected to be a 0.3% increase from 66.9% to 67.2%, based on an approximate $1.2 billion decrease in the UAO. The contribution rate expressed as a percentage of payroll needed to fund the UAO by June 30, 2046 has decreased by about 0.055% of pay. Note that since additional contributions under AB 1469 are projected to provide sufficient revenue, the 0.055% of pay indicates a theoretical reduction in the amount needed to fund the DB Program; in reality, the contribution rates mandated by AB 1469 will not be subject to revision for several years.

Since the assumption for the minimum impact is that all special compensation, except cash-in-lieu compensation, remains with the DB Program, the lower end of the range is small, as cash-in-lieu compensation comprises only a small part of special compensation.

### Estimated Impact to CalSTRS of Removing Certain Special Compensation from Creditable Compensation ($ in millions)

<table>
<thead>
<tr>
<th>Funded Ratio</th>
<th>Unfunded Actuarial Obligation (UAO)</th>
<th>Additional Revenue Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 30, 2013 DB Program Actuarial Valuation (w/AB 1469 additional contributions)</td>
<td>66.9%</td>
<td>$73,667</td>
</tr>
<tr>
<td>2013 Valuation Reflecting Change to Cash in Lieu of Benefits</td>
<td>66.9% - 67.2%</td>
<td>$72,454 - $73,600</td>
</tr>
<tr>
<td>Increase / (Decrease)</td>
<td>0.0% - 0.3%</td>
<td>$(67) - ($1,213)</td>
</tr>
</tbody>
</table>

### Potential for Variability due to Adverse Selection

The data available for this study was limited to the aggregate amount of cash in lieu of benefits and certain other special compensation paid in the 2012-2013 year; information for specific individuals receiving cash in lieu of benefits was not available. Treatment of cash in lieu of benefits as creditable compensation is likely to benefit members closer to retirement more than...
other members, since the additional compensation will have a direct impact on the calculated retirement benefit payable. Therefore, it may be possible that members near retirement age are more likely to elect to receive cash in lieu of benefits.

Our study has assumed an even distribution of cash in lieu of benefits and other special compensation among the membership of CalSTRS. Specifically, we have reduced each member’s creditable compensation amount used in the valuation by 0.07% and 1.27% (minimum and maximum respective reductions) to account for the potential impact of excluding cash in lieu and other special compensation. If, in fact, this special compensation is more heavily concentrated among members who are about to retire, the estimated cost impact to CalSTRS of eliminating this type of compensation from creditable compensation would likely change. In particular, there would likely be a greater savings in the AO and UAO and a smaller change to the future payroll on which contributions would be collected.

On the other hand, if it is only younger members who are not eligible for retirement who are currently receiving cash-in-lieu and other special compensation, the change would have a negative financial impact on the CalSTRS DB Program. This is because there would be basically no savings on the UAO since the cash-in-lieu and other special compensation are not affecting retirement benefits, but there would be a reduction in contributions received. This is essentially the worst case scenario for this potential change from the perspective of DB Program funding.

Reduced Contributions

Due to the lower creditable compensation, the employers and state are expected to make lower dollar contributions to the DB Program in the short term. This reduction in contributions can be estimated by multiplying the applicable contribution rate by the reduction in credited payroll. Once again, we have shown estimated minimum and maximum ranges. Note that we have included the scheduled increases specified in AB 1469.

Note that the chart shows the maximum savings (all special compensation and cash in lieu is excluded from the DB and DBS Programs) and the minimum savings (cash in lieu is excluded from the DB and DBS Programs). To the extent special compensation shifts from the DB Program to the DBS Program, there would still be savings for the districts, because they would be contributing at a lower rate (8.25% to the DBS Program, versus the DB Program rates specified in AB 1469); however, it would be less than the savings shown.
Estimated Impact on Employers and State of Removing Certain Special Compensation from Creditable Compensation

<table>
<thead>
<tr>
<th></th>
<th>Estimated Reduction in DB Creditable Compensation</th>
<th>Estimated Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiscal Year 2014-15</td>
<td>$9.4 - $168.4</td>
<td>$0.8 - $15.0</td>
</tr>
<tr>
<td>Fiscal Year 2015-16</td>
<td>$18.9 - $338.8</td>
<td>$2.0 - $36.4</td>
</tr>
<tr>
<td>Fiscal Year 2016-17</td>
<td>$19.0 - $340.5</td>
<td>$2.4 - $42.8</td>
</tr>
<tr>
<td>Fiscal Year 2017-18</td>
<td>$19.0 - $342.0</td>
<td>$2.7 - $49.4</td>
</tr>
<tr>
<td>Fiscal Year 2018-19</td>
<td>$19.1 - $343.2</td>
<td>$3.1 - $55.9</td>
</tr>
<tr>
<td><strong>State</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiscal Year 2014-15</td>
<td>$0.0 - $000.0</td>
<td>$0.0 - $0.0</td>
</tr>
<tr>
<td>Fiscal Year 2015-16</td>
<td>$0.0 - $000.0</td>
<td>$0.0 - $0.0</td>
</tr>
<tr>
<td>Fiscal Year 2016-17</td>
<td>$19.0 - $168.4</td>
<td>$0.6 - $10.7</td>
</tr>
<tr>
<td>Fiscal Year 2017-18</td>
<td>$19.0 - $338.8</td>
<td>$1.2 - $21.4</td>
</tr>
<tr>
<td>Fiscal Year 2018-19</td>
<td>$19.1 - $340.5</td>
<td>$1.2 - $21.5</td>
</tr>
</tbody>
</table>

Note that for the employers, the estimated savings in the first fiscal year is much smaller, as it is our understanding that this potential change would not take place until at least January 1, 2015. For the state, we estimate no savings for each of the next two years. This is because the state contribution for the fiscal year 2015-16 would be on the payroll for fiscal year 2013-14 which is before the proposed change would have taken effect.

**Actuarial Certification**

All data, methods and assumptions are the same as those used in our June 30, 2013 actuarial valuation of the DB Program, except where noted. Please refer to that report for further details. It should be noted that member behavior may change if cash in lieu of benefits and certain other special compensation were no longer included in creditable compensation. We have not anticipated any changes in member behavior in the assumptions used in our analysis.

The cost estimates presented in this letter reflect possible changes in the benefits provided to DB Program members, as described in this letter. These cost estimates are subject to the uncertainties of a regular actuarial valuation; the costs are inexact because they are based on assumptions that are themselves necessarily inexact, even though we consider them reasonable.

In preparing the valuation upon which this letter was based, we relied without audit, on information (some oral and some in writing) supplied by CalSTRS staff. This information includes, but is not limited to, statutory provisions, employee data and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. It should be noted that if any data or other information is materially inaccurate or incomplete, our calculations may need to be revised.
All costs, liabilities, rates of interest, and other factors for CalSTRS have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of CalSTRS and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting CalSTRS.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Retirement Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix B of the June 30, 2012 valuation report.

Actuarial computations presented in this letter are for purposes of determining the estimated impact of potential changes to the DB Program. The calculations in this letter have been made on a basis consistent with our understanding of CalSTRS current funding requirements. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this letter. Accordingly, additional determinations may be needed for other purposes.

Milliman’s work is prepared solely for the internal business use of CalSTRS. To the extent that Milliman’s work is not subject to disclosure under applicable public records laws, Milliman’s work may not be provided to third parties without Milliman’s prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman’s consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

(a) CalSTRS may provide a copy of Milliman’s work, in its entirety, to the System’s professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman’s work for any purpose other than to benefit the System.

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

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

The consultants who worked on this assignment are pension actuaries. Milliman’s advice is not intended to be a substitute for qualified legal or accounting counsel. These possible changes should be reviewed by counsel. Note that we have not explored these or any other legal issues with respect to the potential plan changes. We are not attorneys and cannot give legal advice on such issues.
On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this cost study letter is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations of the American Academy of Actuaries.

I respectfully submit this analysis and look forward to discussing it with you. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you have any questions, please contact us.

Sincerely,

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

cc: Mr. Rick Reed
    Ms. Ellen Maurizio
    Mr. Mark Olleman
    Ms. Jennifer Senta