TEACHERS' RETIREMENT BOARD

REGULAR MEETING Item Number: 12

SUBJECT: Chief Executive Officer Report

CONSENT: ____ ATTACHMENT(S): 1

ACTION: ____ DATE OF MEETING: September 4, 2014 / *15 mins.*

INFORMATION: X PRESENTER: Jack Ehnes

Upcoming Board Meeting – October

The next scheduled meetings of the board will be their annual planning and evaluation offsite on October 9-10, 2014. The first day will be an open session meeting of the board conducting an all-day investment workshop at the Wyndham Hotel in Irvine (17941 Von Karman Ave, Irvine, CA 92614). The second day (October 10th) will be their annual (closed session) performance discussions of the board, CEO/CIO, executive staff and consultants.

CalSTRS Funding Legislation Dramatically Lowers GASB reported liabilities

As a result of recently effective changes in accounting standards adopted by the Governmental Accounting Standards Board (GASB), public pension funds, such as CalSTRS, and public employers, such as the state and school districts, must calculate and disclose pension liabilities differently than in the past. Under those new standards, the Net Pension Liability (NPL) of the Defined Benefit (DB) Program would have had to use a blended discount rate, reflecting a lower municipal bond rate as well as assumed investment returns, to calculate pension liabilities because the DB Program was projected to deplete its assets in the future.

Based on the June 30, 2012, valuation of the DB Program, the NPL, which would be reflected on the upcoming CalSTRS financial statements and on state and school employer statements after this year, was projected to be $167 billion. It should be noted that this estimate reflects only the NPL of the DB Program; what gets reported in the financial statements, however, reflects the NPL of all CalSTRS pension programs, including the Defined Benefit Supplement, Cash Balance and the Supplemental Benefit Maintenance Account.

With the enactment of the new funding plan through AB 1469, the external actuary, Milliman, now projects that resources are projected to be sufficient to pay benefit payments in all future years. This significantly affects the calculation of the NPL. Consequently, the Net Pension Liability will be calculated based exclusively on the investment return assumption, before fees, of 7.6 percent. As a result, Milliman (see attachment) projects the NPL for all CalSTRS pension benefits (DB, DBS, CB, SBMA and Replacement Benefit programs) to be $59.5 billion as of June 30, 2014 representing almost a two-thirds reduction.

This figure has not yet been audited, but will be, and reflected in our financial statements to be presented at the November 2014 board meeting. This projected NPL is lower than the unfunded liability of the DB Program because the other CalSTRS benefit programs have considerable reserves, which partially offset the net liability of the DB Program.

BusinessRenew Project Activity Report

This progress report is provided at regular board meetings and is intended to provide trustees with snapshot of the intervening project activity as well as a high-level budget status for BusinessRenew projects. A complementary report, provided by Grant Thornton at regular board meetings, is the independent oversight report.

Pension Solution

Purpose: The Pension Solution project encompasses the planning, acquisition and implementation of a new pension program management, member/beneficiary account, benefit calculation, and case management solution to support pension program and policy changes, incorporate automated internal controls, and improve processing times.

Progress: Since the July reporting period, the project teams have completed the prequalification and round 1 scoring of the proposals received in July. The prequalification phase consisted of an evaluation of the proposers meeting the minimal qualifications and financial viability requirements. All four bidders successfully completed the prequalification round. Round 1 scoring consisted of evaluation and consensus scoring of the submitted technical proposals. The proposals that successfully made it past this round have moved on to round 2 scoring, which consists of technical solution demonstrations, customer site visits, and key personnel interviews. This phase is currently underway and is scheduled to be completed by the end of October. The cost evaluation will commence upon the completion of the round 2 scoring in October followed by the Best and Final Offer Negotiations that will run through January 2015.

Budget and Expenditures (As of July 31, 2014) Budget Period: December 2010 – February 2015

Budget - $8 Million Expended - $6.4 million

Data Preparation Project

Purpose: The Data Preparation project is the first of two BusinessRenew Information Management strategy projects. The objective of the project is to ensure all current CalSTRS pension data is prepared for conversion to the new pension system as well as the review and adjustment of priority member accounts.

Progress: Since the July reporting period, significant progress has been made on the Data Preparation project. The analysis of all of the identified data issues has been completed and the key project deliverables: the pension data analysis report and alternatives for data issue resolution are on target to complete in late September due to the extraordinary efforts of the members of the project team(s). These reports will be presented to the Enterprise Program Investment Council to support the implementation phase of the project including evaluation of legal, regulatory and policy options and market research/solicitation development for CalSTRS data conversion support. These reports will also be used by the pension solution evaluation teams for use in the Best and Final Offer negotiations for the Pension Solution procurement. The results of the analysis will be presented to the board in February 2015.

Budget and Expenditures (As of July 31, 2014) Budget Period: November 2011 – August 2014

Budget - $6 Million Expended - $3.4 million

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August 19, 2014

Mr. Rick Reed
California State Teachers' Retirement System
P.O. Box 15275
Sacramento, CA 95851

Re: STRP GASB 67/68 Actuarial Results for Reporting Date June 30, 2014

Dear Rick:

As we have discussed, we have calculated certain requested actuarial figures for the California State Teachers' Retirement Plan (the STRP) per the Governmental Accounting Standards Board (GASB) Statements No. 67 and 68. These statements replace GASB Statements No. 25 and 27 pertaining to accounting and financial reporting for pension plans and employers.

The calculations contained in this analysis have been performed using the results of the June 30, 2013 Defined Benefit (DB) Program, Defined Benefit Supplement (DBS) Program, and Cash Balance Benefit (CBB) Program actuarial valuations, with certain revisions to assumptions and methodology as required by GASB 67 and 68, as described below.

Additionally, GASB 67/68 liabilities for the Supplemental Benefits Maintenance Account (SBMA) Program have been included in the STRP calculations contained in this letter. Per discussions with CalSTRS staff, we have treated future SBMA benefits as substantively automatic at the 85% replacement level under the GASB 67/68 definition.

Our final deliverable product for these GASB 67/68 calculations is a formatted .CSV file with data format specifications provided by CalSTRS accounting staff. We have provided an electronic copy of this file to you, in addition to this letter. Please note that all certifications and limitations contained or referenced in this letter also apply to this electronic deliverable file. Staff should verify consistency of numbers in the .CSV file with numbers contained in this letter prior to use.

Per discussions with CalSTRS, we have performed the following analysis for the GASB Reporting Date of June 30, 2014:

1) We have performed an analysis to determine whether the amount of the STRP Fiduciary Net Position is projected to be greater than or equal to the projected STRP benefit payments in every corresponding future year. **We have found that the STRP Fiduciary Net Position is projected to be sufficient to pay all projected STRP benefit payments in all future years.** This results in a GASB 67/68 discount rate of 7.60% for reporting date June 30, 2014

calculations. The 7.60% discount rate reflects the long-term rate of investment return on total STRP assets, gross of administrative expenses. See the section of this letter entitled “Discount Rate” below for details.

2) We have calculated the June 30, 2013 DB Program Total Pension Liability (TPL) and Service Cost using the following assumptions: a discount rate of 7.60%, the Individual Entry Age Normal (EAN) Cost actuarial cost method, and all other assumptions the same as used in the DB Program actuarial valuation as of June 30, 2013 for GASB 67/68 purposes.

3) We have calculated the June 30, 2013 DBS and CBB Program Total Pension Liability and Service Cost using the following assumptions: a discount rate of 7.60%, the Individual EAN Cost actuarial cost method, assumed crediting rates of 7.50%, assumed lump sum form of payment for all members, and all other assumptions the same as used in the DB Program actuarial valuation as of June 30, 2013 for GASB 67/68 purposes.

4) We have calculated the June 30, 2013 SBMA Program Total Pension Liability and Service Cost using the following assumptions: a discount rate of 7.60%, the Individual EAN Cost actuarial cost method, an assumption for form of payment election consistent with the June 30, 2013 SBMA projection, and all other assumptions the same as used in the DB Program actuarial valuation as of June 30, 2013 for GASB 67/68 purposes.

5) The Total Pension Liability for benefits being paid, or to be paid in the future, from the Replacement Benefit Program (RBP) is included with the TPL for the DB Program, consistent with the funding valuation. Note that it is our understanding that the in-payment data provided to us for DB Program valuation purposes includes benefits payable from the RBP.

6) We have calculated the combined Total Pension Liability results for the STRP (sum of Total Pension Liability results in numbers 2 through 5, above) as of June 30, 2013 and projected these results to the June 30, 2014 reporting date.

7) We have used the STRP Total Pension Liability as of June 30, 2014, and the Draft Fiduciary Net Position of the STRP as of June 30, 2014 (as provided to us by CalSTRS staff) to calculate the STRP Net Pension Liability as of June 30, 2014.

8) We have performed a discount-rate sensitivity analysis on the STRP Net Pension Liability for +1% (an 8.60% discount rate) and -1% (a 6.60% discount rate) scenarios on the GASB discount rate.

9) We have calculated a total average remaining service life for all STRP plan members, rounded to the nearest year. This calculation uses an average remaining service life of 0 years for all inactive members and annuitants. The total average remaining service life for all STRP plan members is 7 years.

10) We have provided the sources of change in the Net Pension Liability between June 30, 2013 and June 30, 2014. These sources of change consist of: changes in benefit terms, differences between actual and expected experience, changes of assumptions, and differences between projected and actual earnings on plan investments. Note that both the STRP Net Pension Liability as of June 30, 2013 and the STRP Net Pension Liability as of

June 30, 2014 are based on the June 30, 2013 actuarial valuation for the first year of implementation.

Discount Rate – Projection of Benefit Payments and Fiduciary Net Position

Per GASB Statements 67 and 68, the discount rate used to calculate the Total Pension Liability and Net Pension Liability should reflect the long-term expected rate of return on plan investments to the extent that the plan Fiduciary Net Position (FNP) is projected to be sufficient to make projected plan benefit payments. If future years exist in which the Fiduciary Net Position is projected to be insufficient to pay projected benefit payments, an index rate reflecting the yield on a 20-year, tax-exempt municipal bond must be used to discount the payments for years that the FNP is insufficient.

The determination of a potential date of future insufficiency in the projected Fiduciary Net Position is often referred to as a depletion date projection. Such a projection calculates future plan benefit payments under certain specific GASB 67/68 requirements. Per GASB Statement 67 paragraph 43, if an evaluation of sufficiency of the Fiduciary Net Position can be made "with sufficient reliability" without performing a depletion date projection, alternative methods to determine sufficiency may be applied.

In order to determine the GASB 67/68 discount rate for the STRP, we have made two separate assessments of projected sufficiency of the Fiduciary Net Position, as follows:

1) For the DB and SBMA Programs, a depletion date projection was performed. This projection shows that the Fiduciary Net Position of the DB and SBMA Programs is not expected to be depleted in any future year; that is, the projected Fiduciary Net Position is always expected to be sufficient to pay projected benefit payments under the assumptions applied in this projection for accounting purposes.

    - A projection of Fiduciary Net Position (plan net assets) was performed. This projection includes all district contributions, as well as all state contributions to the DB and SBMA Programs, intended to fund the benefits of current plan members. Additionally, all projected contributions from, and expected future benefit payments to, current plan members are included. The projection does not include any contributions expected to be made by (or future benefit payments expected to be made to) future DB Program members, nor does it include any district or state contributions expected to be made to fund the cost of benefits for future DB or SBMA Program members. Mid-year timing of cashflows was assumed.
    - We have reflected the projected statutory contribution rates to the DB Program by members, districts, and the state as legislatively mandated by AB 1469 (to the extent allowed under GASB 67/68; see preceding point). These contribution rates are designed to fully fund the DB Program by 2046.
    - For purposes of this depletion date projection, we have treated future SBMA benefits at the 85% purchasing power level as substantively automatic under the GASB 67/68

definition. Note that the DB Program 2% ABA is considered an automatic benefit adjustment and is included in valuation calculations.

- We have reduced future contributions to the DB Program by the projected amounts expected to be diverted to pay benefits of the Medicare Premium Payment Program in future years.

2) For the DBS and CBB Programs, we have used an alternative method as allowed under GASB 67/68 to determine the sufficiency of Fiduciary Net Position in all future years. These Programs are account balance programs, where a crediting rate to member accounts is defined, and additional earnings credits may be granted to member accounts if investment earnings meet certain thresholds.

   The investments for these plans are assumed to earn more than the statutory crediting rate for each plan (i.e., investment income is always assumed to exceed crediting to member accounts). Moreover, as of the June 30, 2013 actuarial valuations for these Programs, each Program was more than 100% funded on an actuarial valuation basis.

   Due to the nature of the plan design and the strong funding status of these plans, by definition the Fiduciary Net Position of these plans will always be projected to be sufficient to pay projected benefit payments for both the DBS and CBB Programs.

Since based on the results of the depletion date projection performed for the DB and SBMA Programs, and the alternative method used to determine ongoing sufficiency of projected Fiduciary Net Position for the DBS and CBB Programs, we have concluded that the Fiduciary Net Position of the STRP, when projected in accordance with GASB 67/68 standards and using the assumptions and methods outlined above, is projected to be sufficient to pay projected benefit payments in all future years.

Since the projected Fiduciary Net Position of the STRP is projected to be sufficient to pay projected benefit payments in all future years, the GASB 67/68 discount rate for purposes of calculating the STRP liabilities is set equal to the long-term assumed rate of return on STRP investments. This long-term assumed rate of return should be net of investment expenses, but gross of administrative expenses, for GASB 67/68 purposes. Therefore, we have used a discount rate of 7.60% for all calculations for the STRP under GASB 67/68. This rate reflects the long-term assumed rate of return on assets for funding purposes of 7.50% net of all expenses, increased by 0.10% to be gross of administrative expenses.

Total Pension Liability and Net Pension Liability

After determining the STRP GASB discount rate as of June 30, 2013, the June 30, 2013 actuarial valuations were recalculated using this discount rate. These recalculations are sometimes referred to as “financial reporting actuarial valuations” to indicate differences in methodology from regular (funding) actuarial valuation calculations. All Programs were valued with using the Individual Entry Age Normal Cost actuarial cost method as specified under GASB 67/68. Note that for purposes of GASB 67/68 calculations, future SBMA Program benefits were considered to be substantively automatic and have been included for future years in all liability calculations.

The resulting liabilities were allocated to past and future service using the EAN cost method. The Total Pension Liability is the amount of GASB valuation liability allocated to past service; therefore, it is somewhat analogous to the Actuarial Obligation figures shown in the June 30, 2013 actuarial valuation reports. However, it will differ from those figures due to discount rate, cost method changes for the DBS and CBB Programs, inclusion of the SBMA liabilities, and exclusion of the MPP Program obligation (which is included in DB Program liabilities for funding purposes).

The results of the June 30, 2013 financial reporting actuarial valuation calculations are shown by Plan in the chart below.

Programs in STRP as of June 30, 2013
Financial Reporting Actuarial Valuation* Results
($ in millions)

		2013 Financial Reporting Valuation*
DB Program Total Pension Liability	$	220,025
DBS Program Total Pension Liability		7,122
SBMA Program Total Pension Liability		10,464
CBB Program Total Pension Liability		174
STRP Total Pension Liability	$	237,786

**Financial reporting actuarial valuation calculations use 7.60% discount rate, individual entry age normal cost method, exclude MPP Program liabilities, and consider future SBMA benefits to be substantively automatic. All other assumptions are consistent with the assumptions used in the June 30, 2013 DB Program actuarial valuation.*

The June 30, 2013 Total Pension Liability was then projected forward to the June 30, 2014 reporting date. The June 30, 2014 Net Pension Liability is equal to the Total Pension Liability as of that date, less the Fiduciary Net Position for the STRP as of that date.

Exhibit 1, attached to this letter, shows the changes in the Total Pension Liability, Fiduciary Net Position, and Net Pension Liability between June 30, 2013 and June 30, 2014.

Sensitivity of Net Pension Liability to Changes in GASB Discount Rate

In accordance with the requirements of GASB 67/68, we have performed a sensitivity analysis of the STRP Net Pension Liability to changes in the GASB discount rate. The two scenarios specified in the GASB statements are +1% and -1% adjustments to the calculated GASB discount rate. Additionally, per CalSTRS' request, we have shown +/-2% and +/-3% scenarios.

The results of the sensitivity analysis are shown in the chart below:

STRP as of June 30, 2014 Sensitivity of Net Pension Liability to Discount Rate ($ in millions)		
Discount Rate		**Net Pension Liability**
3% Decrease (4.60%)	$	180,027
2% Decrease (5.60%)		132,074
1% Decrease (6.60%)		92,590
Current Discount Rate (7.60%)		59,939
1% Increase (8.60%)		32,714
2% Increase (9.60%)		9,837
3% Increase (10.60%)		(9,458)

Statement of Changes in the Net Pension Liability

For illustrative purposes, we have produced a Statement of Changes in Net Pension Liability for the STRP between June 30, 2013 and June 30, 2014. The results are shown in Exhibit 1, attached to this letter.

For the first year of implementation, both the June 30, 2013 and June 30, 2014 figures are based on the June 30, 2013 financial reporting actuarial valuations for the various Programs, so differences between actual and expected (non-investment) experience are zero.

Actuarially Determined Contribution

Under the new GASB statements, an Actuarially Determined Contribution (ADC) should be disclosed if such a number is calculated. Per discussions with CalSTRS staff, we have provided an ADC for the STRP which reflects the following:

- For the DB Program, the ADC for the year ending June 30, 2014 is the minimum recommended contribution rate as of the June 30, 2013 actuarial valuation (the required rate to fully fund the DB Program over a 30-year period), applied to actual DB Program payroll for the fiscal year ended June 30, 2014.
- For the DBS, CBB, and SBMA Programs, the ADC reflects the actual dollar amounts contributed for these plans in the fiscal year ended June 30, 2014.

The following chart shows the Actuarially Determined Contribution amount for the STRP for the fiscal year ending June 30, 2014.

STRP Actuarially Determined Contribution (ADC) Fiscal Year Ending June 30, 2014		
Total STRP ADC	**$**	**6,852,921,279.08**

Average Remaining Service Life for STRP Members

Per your request, we have calculated the average remaining service life for all STRP members for use in GASB 67/68 calculations. This calculation assumes a remaining service life of 0 years for retired, disabled, beneficiary, and inactive members. The total average remaining service life for STRP members based on the June 30, 2013 GASB actuarial valuations is 7 years (as rounded to the nearest whole number of years).

Actuarial Certification

All data, methods, and assumptions are the same as those used in our June 30, 2013 DB Program actuarial valuation report except where noted. Please refer to that report for further details. For purposes of the analysis contained in this letter, the DB Program assumptions have been applied to all Programs except where noted. The cost estimates presented in this letter reflect our interpretation of upcoming changes to the accounting rules affecting GASB reporting for the STRP, as described in this letter. These estimates are subject to the uncertainties of a regular actuarial valuation; they are inexact because they are based on assumptions that are themselves necessarily inexact, even though we consider them reasonable.

In preparing the valuations and projections 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, 2013 valuation report.

Actuarial computations presented in this letter are for purposes of financial reporting. The calculations in this letter have been made on a basis consistent with our understanding of the accounting requirements in GASB Statements 67 and 68. 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.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this analysis 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.

We are consulting actuaries for Milliman, Inc. We are also members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you have any questions, please contact us.

Respectfully submitted,

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

Jennifer D. Senta, ASA, MAAA
Consulting Actuary

NJC/JDS/nlo

Enclosure

cc: Mr. Ed Derman
Ms. Conniea Kim
Mr. Nick Lange
Mr. Mark Olleman

Exhibit 1 Statement of Changes in STRP Net Pension Liability
($ in millions)

	Increase (Decrease)		
	Total Pension Liability (a)	**Plan Net Position (b)**	**Net Pension Liability (a)-(b)**
Balance at June 30, 2013	$ 237,786	$ 166,349	$ 71,438
Changes for the year:			
Service Cost	5,338		5,338
Interest	17,822		17,822
Benefit Changes	0		-
Difference between expected and actual experience	-		-
Changes of Assumptions	-		-
Contributions			
Districts		2,272	(2,272)
State		1,383	(1,383)
Member Contributions		2,264	(2,264)
Net Investment Income		28,902	(28,902)
Refunds of Contributions	(108)	(108)	-
Benefits Paid	(11,928)	(11,928)	-
Plan Administrative Expenses		(154)	154
Other Changes		(9)	9
Net Changes	11,125	22,623	(11,499)
Balance at June 30, 2014	$ 248,911	$ 188,972	$ 59,939