STATE OF CALIFORNIA

California Actuarial Advisory Panel

January 26, 2012

Mr. E. Dotson Wilson
Chief Clerk of the Assembly
State Capitol
Sacramento, CA 95814

RE: The California Actuarial Advisory Panel's 2011 Annual Report to The California Legislature

Dear Mr. Wilson:

Pursuant to Government Code § 7507.2, the California Actuarial Advisory Panel (the Panel) is pleased to submit its second annual report. During 2011, Leslie Finertie was appointed by the Speaker of the Assembly. Edward Friend resigned as the appointee of the State Association of County Retirement Systems and Graham Schmidt was appointed to succeed him.

The Panel met ten times and made significant progress towards fulfilling its statutory responsibilities. Specifically, the Panel:

- Adopted and published *Model Disclosure Elements for Actuarial Valuation Reports on Public Retirement Systems in California* (see attached);
- Offered assistance with regards to pension and OPEB issues related to the budget or pension/OPEB reform to the Governor and the Legislature;
- Made significant progress in defining the range of model funding policies and practices;
- Responded to an inquiry from a public entity.

State Controller's Office
Division of Accounting and Reporting
P.O. Box 942850, Sacramento, CA 94250
Phone: 916-327-4144 Fax: 916-323-4807

The *Model Disclosure Elements for Actuarial Valuation Reports on Public Retirement Systems in California* recommends significant enhancements, especially in the reporting on risks associated with the funding of public retirement systems. These recommendations go beyond current reporting guidelines and if adopted by public sector retirement systems will serve to make annual valuation reports more understandable and meaningful for readers.

The Panel has made considerable progress on developing a model for actuarial funding policies and practices. This model is expected to give guidance to actuaries as well as help retirement system boards in discussing and evaluating the actuarial policies and practices that are being recommended to them by their actuary. The Panel expects to release an exposure draft of the model policies in early 2012 with final adoption in late 2012 or early 2013.

In 2011, the Panel closely monitored Assembly Bill 1247, legislation requiring the Chairman of the Panel or designee to review CalPERS actuarial work and report to the legislature. The Panel is concerned about this legislation because it is outside the scope of its charter and it will increase the workload of the Panel beyond its available resources. The Panel has excellent administrative support from the State Controller's Office staff, but all actuarial assignments must be completed by the Panel without any support. The Panel would like to work with the Administration and Legislature on both of these concerns.

The Panel would like to re-emphasize that it remains ready to assist the Governor and Legislature with analysis of public pension issues. The Panel has unique insight into pension plans and pension issues, not only from a technical view, but as retirement experts with many years of pension and retiree medical experience. The members of the Panel appreciate serving the citizens of California and would welcome any opportunity to discuss the matters raised in this report.

Sincerely,

Original signed by:

Alan Milligan, FSA, FCA, MAAA
Chair, California Actuarial Advisory Panel

cc: Panel members:
Paul Angelo, Vice Chair
John E. Bartel
Leslie Finertie
Harold A. Loeb
Lynn C. Miller
Rick Reed
Graham Schmidt

Jerry Brown, California Governor
John Chiang, California State Controller
Bill Lockyer, California State Treasurer
Ana Matosantos, Director, Department of Finance
Ronald Yank, Director, Department of Personnel Administration
Warren Furutani, Chair, Assembly Committee on Public Employees, Retirement and Social Security
Gloria Negrete McLeod, Chair, Senate Public Employment and Retirement Committee
Mac Taylor, Legislative Analyst, Legislative Analyst's Office
John Perez, Speaker of the Assembly
Darrell Steinberg, Chair, Senate Rules Committee
Anne Stausboll, Chief Executive Officer, CalPERS
Jack Ehnes, Chief Executive Officer, CalSTRS
Mark Yudof, President, University of California
Richard White, President, State Association of County Retirement Systems

Enclosures

Model Disclosure Elements for Actuarial Valuation Reports on Public Retirement Systems in California

(Applicable to Pension and Other Post-Employment Benefits)

As part of its effort to influence and improve actuarial practice with respect to public retirement systems in California, the California Actuarial Advisory Panel has adopted a set of model disclosure elements for actuarial valuation reports of public retirement systems in California.

Actuaries should comply with actuarial standards of practice. These model disclosure elements are meant to supplement rather than replace the current standards of practice. They represent an inventory of disclosure elements that actuaries should strive towards including in their reports on the actuarial valuations of public retirement systems in the State of California. It is hoped that these model disclosure elements will gradually be adopted by the majority of pension and OPEB actuaries practicing in the public sector in California.

As some of these model elements go beyond what is current standard practice, there will be an increase in the amount of work and hence expense to prepare actuarial valuation reports. The Panel believes that plans and plan sponsors will recognize the value in these disclosures notwithstanding the extra expense.

These disclosure elements are organized as basic disclosures generally suitable for the regular (often annual) actuarial valuation reports followed by enhanced disclosures that may be appropriate for inclusion either in the regular actuarial valuation report or in other reports specific to a given purpose. It is not anticipated that these disclosures would be included in every actuarial communication. Furthermore these disclosures generally are not intended for reports that primarily present accounting and financial reporting information, as disclosures in such reports are governed by applicable accounting standards.

Basic Disclosures: The basic disclosure elements shown below include both valuation results and the basis for the valuation, and represent a modest extension of current actuarial practice in the public sector in California. Much if not all of the information below can be found in current actuarial valuation reports or readily derived from information already available in those reports.

Basic Disclosures – Valuation Results

1. Normal Cost

   A. General. The Normal Cost should be disclosed in sufficient detail so that the user can understand how this element of the recommended contribution is determined and how it is to be paid.

B. Form. The Normal Cost would usually be determined as either a percent of pay or a dollar amount[1]. If the normal cost is not determined as a dollar amount, the estimated dollar amount of the contributions should also be disclosed.

C. Timing. The disclosure should indicate the assumed timing of the normal cost within the contribution year: beginning of year, during the year (e.g., by pay period), end of year, etc.

D. Funding source. For contributory plans the disclosure should indicate the total normal cost and the portions funded by active member contributions, employer contributions and any other funding source.

2. Present Value of Benefits (PVB)

   Disclosure should include the PVB both in total and separately for significant membership groups (such as active, terminated vested, and retired).

3. Actuarial Accrued Liability (AAL)

   Disclosure should include the AAL both in total and separately for significant membership groups (such as active, terminated vested, and retired).

4. Market Value of Assets (MVA) and Actuarial Value of Assets (AVA)

5. Unfunded Actuarial Accrued Liability (UAAL) or Surplus[2]

   On both an AVA basis and a MVA basis

6. Current Contributions

   A. Actuarially determined. The funding contribution that would be required if the plan were currently being funded in accordance with the stated actuarial assumptions and methods, ignoring any restrictions on contributions.

   B. In accordance with current funding policy. The funding contribution that is expected to be made in accordance with the current actuarial assumptions and methods, reflecting any restrictions on contributions imposed by law, regulation or otherwise.

   As with the Normal Cost, these items should be disclosed in sufficient detail so that the user can understand how the contributions are determined and how they are to be paid. The current contributions would usually be determined as either percentages of pay or dollar amounts[3]. If the current contributions are not determined as dollar amounts, the estimated dollar amounts of the contributions should also be disclosed.

   Also, as with the Normal Cost, the current contributions should include information as to the timing and funding sources of the contributions.

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[1] Where there are active members, the Normal Cost will usually be expressed as a percentage of pay. However, in some circumstances (including many OPEB plans which do not generally have pay-related benefits) it may be appropriate to determine the normal cost on some other basis such as a level dollar amount. Where there are no active members, the normal cost would normally be determined as $0.

[2] Here "surplus" refers to a negative UAAL, where assets exceed the AAL.

[3] Where there are active members, the current contribution requirement will usually be expressed as a percentage of pay. However, in some circumstances (including many OPEB plans which do not generally have pay-related benefits) it may be appropriate to determine the current contribution requirement on some other basis such as a fixed dollar amount. Where there are no active members, the current contribution requirement would normally be determined as a fixed dollar amount.

7. Funded Ratios on both an AVA and MVA basis (AVA/AAL, MVA/AAL)
8. Asset Smoothing Ratio (AVA / MVA) before and after any MVA corridor
9. Volatility Ratios

   Asset Volatility Ratio: MVA/Payroll[4] – This ratio provides an indication of the potential contribution volatility for any given level of investment volatility. A plan with an Asset Volatility Ratio of 10 would have double the level of contribution volatility of a plan with an Asset Volatility Ratio of 5.[5] This is a current measure since it is based on the current level of assets.

   Liability Volatility Ratio: AAL/Payroll –This ratio provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility.[6] In addition, this ratio provides an indication of the potential contribution volatility due to liability experience (gains and losses) and liability remeasurements (assumption changes).

10. Reconciliation of changes in UAAL or Surplus

    A schedule of changes in UAAL since the previous actuarial valuation date should include:

    a. The UAAL as of the previous valuation date
    b. Expected changes in UAAL, including Normal Cost, interest and contributions[7]
    c. Other changes in UAAL, listed separately, including gains and losses[8], assumption changes, method changes and plan amendments
    d. The resulting UAAL as of the current valuation date

11. UAAL Amortization Schedule

    The UAAL amortization schedule should include the current UAAL amount(s), the remaining amortization period(s) and the current UAAL amortization payment(s). As applicable (for example, when the total UAAL is amortized in separate amounts based on the source of the UAAL) the schedule should include the original UAAL amortization amounts, and the dates and sources of such amounts

12. Reconciliation of changes in employer required contribution or contribution rate

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[4] The payroll used for this purpose would normally be the covered payroll on which contributions are being made. However, it may be appropriate in some circumstances to use other definitions of payroll provided that the basis is clearly documented. For example, in a situation where there are multiple tiers of benefits, it may be appropriate to combine the tiers for the purpose of disclosing the volatility ratios.

[5] If a plan has an asset volatility ratio of 10, a 10% gain or loss on assets translates to 100% of payroll. This will have a substantial impact on required contributions regardless of the asset smoothing or UAAL amortization mechanisms in use. However, for a plan has an asset volatility ratio of 5, a 10% gain or loss on assets translates to 50% of payroll and would only have half the impact on contributions of a plan with an asset volatility ratio of 10.

[6] This is because the assets should track the liabilities over an extended period of time. If a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded.

[7] Contributions may be shown as either actual or expected, with consistent treatment of the disclosure of contribution gains or losses later in this schedule

[8] While a complete reconciliation of gains/losses by source is not necessarily required, major sources of gain/loss should be separately identified, including investment related gain/loss.

A schedule of changes in the employer required contribution or contribution rate since the previous actuarial valuation date should include:

a. The contribution or contribution rate as of the previous valuation date

b. Changes in the contribution or contribution rate due to changes in existing amortization bases

c. Changes in the contribution or contribution rate due to assumption changes, method changes and plan amendments

d. Changes in the contribution or contribution rate due to demographic changes (including payroll) and the amortization of gains and losses

e. The resulting contribution or contribution rate as of the current valuation date

Basic Disclosures – Basis for Valuation: These disclosures are intended to give the user of the report essential information as to the basis for measurement of plan costs and liabilities.

13. Disclose the assumptions[9] used in the actuarial valuation along with the rationale and process[10] for establishing those assumptions as well as any changes since the prior valuation.

14. Disclose the principal actuarial funding policies and related methodologies used in the actuarial valuation along with the rationale and process for establishing those policies. Such funding policies should include:

    a. The actuarial cost method used to allocate the present value of projected benefits to years of service for active members, including any variations in the "entry age" method such as "replacement life" or "funding to decrement".

    b. The asset smoothing method used to determine the AVA, including the smoothing period and method as well as any constraints on the AVA such as an "MVA corridor".

    c. The UAAL amortization policy including the structure (single UAAL layer vs. multiple UAAL layers), method (level dollar vs. level percent of pay, fixed (closed) vs. rolling (open) amortization periods) and period(s) used for determining the amortization payments.

    d. Any other methodologies used to determine the actuarial funding policy contribution amounts, including, for example, any phase-in of the effect of assumption changes or any limitations on the amount that contributions can change in a given year.

    e. Any changes in any of the above since the prior valuation.

15. Provide an outline or summary of the benefits included in the actuarial valuation and of any significant benefits not included in the actuarial valuation[11]. The outline or summary of the

[9] One assumption that should be clearly disclosed is the provision for administrative expenses, either as an explicit assumption or as a component of a discount rate determined net of expenses.

[10] The rationale and process for establishing both assumptions and funding policies may be incorporated by reference to some other report or study, such as an experience investigation, statement of funding policy, or statute or regulation.

[11] For example some retirement systems either allow or are required to transfer some portion of investment earnings in excess of the assumed investment return into a reserve which is used to provide supplemental benefits. A

benefits included in the actuarial valuation should include a description of how the member contributions are determined.

16. Disclose the basis for determining the actual contributions made to the plan if different from that determined under the actuarial funding policies.

Enhanced Disclosures: These disclosures go beyond the results of the current valuation and so generally will require additional work on the part of the actuary. Because of cost considerations and because different disclosures may be appropriate for different circumstances, these disclosures may be adopted more slowly and/or less universally than the basic disclosure elements above. Furthermore, these disclosures may be appropriate for reports separate from the actuarial valuation report. Nevertheless, we believe that these disclosures will generally enhance the information provided and so we encourage their adoption as the norm for public plan actuarial work where appropriate.

Enhanced Disclosures -- General

17. Contribution Requirement on an MVA basis

    Disclose the current contribution requirement with the AVA set equal to the MVA. This calculation may be appropriate for inclusion in the actuarial report especially when the asset smoothing method is deferring substantial market gains or losses. It is recommended here as an easily developed illustration of the approximate, ultimate effect of those deferred gains or losses. It should not be interpreted as recommending a policy alternative to the use of a smoothed AVA in determining contribution requirements.

18. Projections of future contributions and funded status[12].

    Some projections may be more appropriate in some circumstances than others. Contribution projections may be particularly appropriate when the asset smoothing method is deferring substantial market gains or losses. Funded status projections are particularly useful when the employer is not contributing the actuarially determined amount. They are also appropriate when the UAAL amortization policy is such that the funded status is not expected to increase even when all assumptions are met.

Enhanced Risk Disclosures: These disclosures are intended to give the user of the report additional information and understanding of the risks associated with the funding of the pension plan. As with the General Enhanced Disclosures, these disclosures require additional work on the part of the actuary and so may be adopted more slowly and less generally than the basic disclosures. These risk disclosures could include but are not limited to:

19. A "sensitivity analysis" showing the impact on current valuation results of changes in key assumptions and methodologies.

20. A "deterministic stress test" projection of future results under appropriately chosen scenarios showing the effect of future actual experience different from that assumed in the valuation.

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statement indicating whether or not the impact of such transfers – past or future – on assets, liabilities, contributions and/or assumptions was included in the actuarial valuation would be appropriate.

[12] No particular format or content for these projections is specified here beyond that described above.

21. A "stochastic or probabilistic" analysis on the impact of statistical variation in key experience elements including the actual future investment returns.

Enhanced Historical Disclosures: These disclosures show the history of contribution practices, valuation results and actuarial assumption and funding policy decisions. We encourage plans to begin maintaining a record of these results as well as presentation of as many years of past results are available.

22. Contribution History (10 years or more)

    Actuarially determined amount (based on estimated or actual payroll)

    Funding policy amount, if different (based on estimated or actual payroll)

    Actual contribution amount

23. Funded Status History (10 years or more)

    AAL, MVA and AVA

    UAAL or Surplus, and funded ratios, on both an AVA basis and a MVA basis

    Other ratios, including Asset Smoothing Ratio and Volatility Ratios (see Basic Disclosures 7 and 8)

24. Reconciliation of changes in UAAL or Surplus (10 years or more)

    Same elements as described in Basic Disclosure 9

25. Reconciliation of changes in employer contribution or contribution rate (10 years or more)

    Same elements as described in Basic Disclosure 11

26. Funding Policy History (10 years or more)

    Changes in asset smoothing method

    Changes in UAAL amortization policy

    Changes in other funding policies (incl. cost method)

    For each, include effective date, financial impact and a brief indication of rationale[13]

27. Changes in Economic Assumptions (10 years or more)

    Includes price inflation, wage inflation, and investment earnings

    For each, include effective date, financial impact and a brief indication of rationale[10]

28. Changes in Key Demographic Assumptions

    Could include mortality, retirement ages, etc.

    For each, include effective date, financial impact and a brief indication of rationale[10]

[13] The rationale may be incorporated by reference to some other report or study, such as an experience investigation or review of funding policy.

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    a. The UAAL as of the previous valuation date
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e. The resulting contribution or contribution rate as of the current valuation date

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13. Disclose the assumptions[9] used in the actuarial valuation along with the rationale and process[10] for establishing those assumptions as well as any changes since the prior valuation.

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    c. The UAAL amortization policy including the structure (single UAAL layer vs. multiple UAAL layers), method (level dollar vs. level percent of pay, fixed (closed) vs. rolling (open) amortization periods) and period(s) used for determining the amortization payments.

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benefits included in the actuarial valuation should include a description of how the member contributions are determined.

16. Disclose the basis for determining the actual contributions made to the plan if different from that determined under the actuarial funding policies.

Enhanced Disclosures: These disclosures go beyond the results of the current valuation and so generally will require additional work on the part of the actuary. Because of cost considerations and because different disclosures may be appropriate for different circumstances, these disclosures may be adopted more slowly and/or less universally than the basic disclosure elements above. Furthermore, these disclosures may be appropriate for reports separate from the actuarial valuation report. Nevertheless, we believe that these disclosures will generally enhance the information provided and so we encourage their adoption as the norm for public plan actuarial work where appropriate.

Enhanced Disclosures -- General

17. Contribution Requirement on an MVA basis

    Disclose the current contribution requirement with the AVA set equal to the MVA. This calculation may be appropriate for inclusion in the actuarial report especially when the asset smoothing method is deferring substantial market gains or losses. It is recommended here as an easily developed illustration of the approximate, ultimate effect of those deferred gains or losses. It should not be interpreted as recommending a policy alternative to the use of a smoothed AVA in determining contribution requirements.

18. Projections of future contributions and funded status[12].

    Some projections may be more appropriate in some circumstances than others. Contribution projections may be particularly appropriate when the asset smoothing method is deferring substantial market gains or losses. Funded status projections are particularly useful when the employer is not contributing the actuarially determined amount. They are also appropriate when the UAAL amortization policy is such that the funded status is not expected to increase even when all assumptions are met.

Enhanced Risk Disclosures: These disclosures are intended to give the user of the report additional information and understanding of the risks associated with the funding of the pension plan. As with the General Enhanced Disclosures, these disclosures require additional work on the part of the actuary and so may be adopted more slowly and less generally than the basic disclosures. These risk disclosures could include but are not limited to:

19. A "sensitivity analysis" showing the impact on current valuation results of changes in key assumptions and methodologies.

20. A "deterministic stress test" projection of future results under appropriately chosen scenarios showing the effect of future actual experience different from that assumed in the valuation.

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statement indicating whether or not the impact of such transfers – past or future – on assets, liabilities, contributions and/or assumptions was included in the actuarial valuation would be appropriate.

[12] No particular format or content for these projections is specified here beyond that described above.

21. A "stochastic or probabilistic" analysis on the impact of statistical variation in key experience elements including the actual future investment returns.

Enhanced Historical Disclosures: These disclosures show the history of contribution practices, valuation results and actuarial assumption and funding policy decisions. We encourage plans to begin maintaining a record of these results as well as presentation of as many years of past results are available.

22. Contribution History (10 years or more)

    Actuarially determined amount (based on estimated or actual payroll)

    Funding policy amount, if different (based on estimated or actual payroll)

    Actual contribution amount

23. Funded Status History (10 years or more)

    AAL, MVA and AVA

    UAAL or Surplus, and funded ratios, on both an AVA basis and a MVA basis

    Other ratios, including Asset Smoothing Ratio and Volatility Ratios (see Basic Disclosures 7 and 8)

24. Reconciliation of changes in UAAL or Surplus (10 years or more)

    Same elements as described in Basic Disclosure 9

25. Reconciliation of changes in employer contribution or contribution rate (10 years or more)

    Same elements as described in Basic Disclosure 11

26. Funding Policy History (10 years or more)

    Changes in asset smoothing method

    Changes in UAAL amortization policy

    Changes in other funding policies (incl. cost method)

    For each, include effective date, financial impact and a brief indication of rationale[13]

27. Changes in Economic Assumptions (10 years or more)

    Includes price inflation, wage inflation, and investment earnings

    For each, include effective date, financial impact and a brief indication of rationale[10]

28. Changes in Key Demographic Assumptions

    Could include mortality, retirement ages, etc.

    For each, include effective date, financial impact and a brief indication of rationale[10]

[13] The rationale may be incorporated by reference to some other report or study, such as an experience investigation or review of funding policy.