♦MENDOCINO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION♦
BOARD OF RETIREMENT MEETING MINUTES
♦MARCH 20, 2013 AT 8:30 A.M.♦

CALL TO ORDER

Shari Schapmire, Board Chair, called the meeting to order at 8:30 a.m.

ROLL CALL

Roll call was conducted with the following members present: Shari Schapmire, Lloyd Weer, Ted Stephens, Tim Knudsen, Supervisor John McCowen, Randy Goodman, John Sakowicz, and Craig Walker. Members absent: Bob Mirata and Richard Shoemaker. Also present: Rich White, Retirement Administrator, Jeff Berk, Legal Counsel, Judy Zeller, Board Clerk, Andy Yeung and Paul Angelo, The Segal Company.

PUBLIC COMMENT: None

1) APPROVAL OF THE MINUTES OF THE BOARD MEETING HELD FEBRUARY 20, 2013
Upon motion by Supervisor McCowen, seconded by Mr. Walker; IT IS ORDERED that the minutes of the February 20, 2013 Board meeting were approved unanimously.

Mr. Shoemaker entered the meeting at 8:32 a.m.

2) DISCUSSION AND POSSIBLE ACTION REGARDING ACTUARIAL FUNDING POLICY, THE SEGAL COMPANY

Presenter/s: Paul Angelo and Andy Yeung, The Segal Company, referenced their letter dated March 7, 2013 regarding Proposed Significant Provisions for a Statement of Actuarial Funding Policy previously distributed to the Board. Our current practices and possible modifications to the current funding policy of MCERA, adopted in 2006, were discussed.

Mr. Angelo described the process of establishing a model funding policy with agreed objectives, which is much more subjective than setting the Actuarial Assumptions because, unlike actuarial assumptions, actuarial funding policy will not be proved right or wrong when compared to actual future experience. The Board asked questions about Corridor Funding, Amortization periods, Unfunded Liability, the recent guidelines provided by the California Actuarial Advisory Panel on actuarial funding policy and the new GASB rules. Mr. Angelo provided information regarding a multiple layered amortization approach for future changes in UAAL, as described in the Segal letter.

There were discussions regarding the impact on the employer's contribution rate should the Board consider shortening the current 27-year period to amortize MCERA's current UAAL. Supervisor

Pending Board Approval

McCowen suggested continuing this agenda item so that the board may have a complete discussion before taking action. The County, The Superior Courts, and the Russian River Cemetery District should be provided with this funding presentation and complete information on the decisions that need to be made. Mr. Shoemaker added that these employers should prepare a response regarding the potential increase in cost on their budgets.

Kyle Knopp, County Assistant Chief Executive Officer, stated that he would like to present a response at the next board meeting. Mr. Knopp felt that the possible changes will impact the County and that the County is in an impaired situation. He understands that this Board will have an important and difficult decision to make.

Board Direction: Staff will contact our employers and request that their representatives attend the next board meeting to present a response to the possible funding policy changes discussed today. The employers will be provided with today's presentation and complete information on the decisions that need to be made regarding the funding policy.

Board Action: Motion was made by Mr. Sakowicz to continue this agenda item to next month's meeting for discussion and possible action. Mr. Knudsen seconded the motion and it was approved unanimously.

BREAK

3) BENEFITS AND OPERATIONS

- **Report on Active Membership and Retirements as of February 28, 2013**
  Active Members = 1037 Retired Members = 1259 Retired Deceased = 2
  New Members = 22 Terminations = 18 Withdrawn Not Vested = 1 $153.27
  Withdrawn Vested = 1 $38,584.03
- **Retirement Benefits Presentation on the Calculation of a Member's Retirement Benefits**

Presenter/s: Katy Richardson, Senior Retirement Specialist, and Christie O'Ferrall, Retirement Specialist II, provided a presentation on the calculation of a member's retirement benefits. This included examples of the member's enrollment affidavit, a retirement file worksheet, a final salary example, and a benefit calculation example.

4) AUDIT AND BUDGET COMMITTEE REPORT

- **Audit and Budget Committee Agenda for March 12, 2013**
- **Audit and Budget Committee Minutes for January 28, 2013**
- **Discussion and possible direction regarding the Comprehensive Annual Financial Report (CAFR) for the year ended June 30, 2012.**

Pending Board Approval

Presenter/s: Rich White referenced the Audit and Budget Committee March 12th Agenda and January 28th Minutes previously distributed to the Board. Committee reports will be made to the full Board after committee meetings are held. Mr. Shoemaker asked the committee to approve any unapproved committee meeting minutes during regularly scheduled Board meetings if necessary.

Mr. White referenced the CAFR asking that the Board pay attention to the CAFR content and not the format as it is still in need of modifications. Staff will continue to improve and finalize this document to meet the GFOA submission deadline of March 31, 2013. Gallina, LLP will also review the CAFR prior to submission.

Board Direction: Staff will finalize the CAFR and will submit to the GFOA after final review by the Audit and Budget Committee.

5) DISCUSSION AND POSSIBLE ACTION REGARDING ADOPTION OF CHARTERS AND POLICIES

- **Adoption of Retirement Board Charter**
- **Adoption of Retirement Administrator Charter**
- **Adoption of Assessment and Determination of Compensation Enhancements Policy**
- **Re-adoption of Overpayment Policy**

Presenter/s: Rich White referenced the **Retirement Board Charter** previously distributed to the Board. He mentioned that this charter requires approval of all qualified service retirements per Government Code Section 31670 and that this information will be included in agendas beginning in April. Supervisor McCowen suggested changes to the Retirement Board Charter.

Board Direction: Staff will include the names and dates of retirement for our newly retired members in the agenda for Board approval by consent. The charter will be amended as follows: II. A. 1. b. change Make to Adopt; C. 1. c. add Review and before Determine; G.2. change approve actions to provide direction and item F.1.d. will be included in a future meeting agenda.

Board Action: Motion was made by Mr. Sakowicz to adopt the Retirement Board Charter as amended. Mr. Weer seconded the motion and it was approved unanimously.

Presenter/s: Rich White referenced the **Retirement Administrator Charter** and mentioned that this charter will assist the Board with future Administrator performance evaluations. Supervisor McCowen and Mr. Weer suggested changes to the Retirement Administrator Charter.

Board Direction: The charter will be amended as follows: II.C.1.c. change to make recommendations to the Board for approval or denial of disability applications., II. D.1.b. add and provide quarterly budget reviews., and II.H.1.b. change or to on.

Pending Board Approval

Next Board Action: Motion was made by Supervisor McCowen to adopt the Retirement Administrator Charter as amended. Mr. Weer seconded the motion and it was approved unanimously.

Presenter/s: Rich White referenced the Assessment and Determination of Compensation Enhancements Policy and mentioned that this was a new policy dictated by PEPRA. The assessment and determination process will most likely be kept at the staff level, unless staff has been unable to resolve an issue.

Board Direction: Staff will amend the policy by adding reference to any resolutions regarding compensation enhancements and will correct format.

Next Board Action: Motion was made by Mr. Knudsen to adopt the Assessment and Determination of Compensation Enhancements Policy as amended. Mr. Goodman seconded the motion and it was approved unanimously.

Presenter/s: Rich White referenced the Overpayment policy and mentioned that this policy was previously adopted February 15, 2012. Staff felt that the policy has worked sufficiently since it was implemented. Board members agreed that the policy should be amended to reference the CA Small Claims Court Limit and collection efforts should be consistently described as reasonable.

Board Direction: The policy will be amended as follows: IV.C. 1. and 2. were deleted, item 3. will change to 1. For amounts up to the CA Small Claims Court limit, the Retirement Administrator has discretion, after the completion of reasonable collection efforts, to either commence further efforts such as negotiation or the intent to recommend litigation to the Board, or cease collection efforts. In exercising this discretion, the estimated cost of further negotiation and/or litigation will be considered against the amount due and any actions taken will be reported to the Board.; item 4. will change to 2. For amounts over the CA Small Claims Court limit the Retirement Administrator shall, after reasonable collection efforts…., item 5. will be deleted, and the last sentence in V. Policy Review will be deleted.

Next Board Action: Motion was made by Mr. Knudsen to adopt the Overpayment Policy as amended. Mr. Stephens seconded the motion and it was approved unanimously.

6) DISCUSSION AND UPDATE ON STRATEGIC PLAN

- **Discussion and possible direction on implementation of goals and objectives progress report.**

Pending Board Approval

Presenter/s: Rich White referenced the Strategic Plan previously distributed to the Board. He provided a progress report on certain goals and objectives since the last Board meeting including implementation of PEPRA, evaluation of automation, staff development and training, review of charters and policies, establishing reporting and measurement of the progress of the strategic plan goals and objectives, fiduciary training (April meeting), prudent management, evaluation of active and passive management, asset/liability modeling (start this year), re-evaluation of actuarial funding method (Today), and communication to plan sponsors on PEPRA.

7) MONTHLY FINANCIAL REPORT

- **Financial Reports for January 2013**

Presenter/s: Rich White referenced a Statement of Plan Net Assets, a Statement of Change in Plan Net Assets, a Cash Flow Analysis, and the vendor ledger previously distributed to the Board.

Board Direction: See agenda item 8).

LUNCH RECESS (12:26 p.m.)

RECONVENE (1:15 p.m.)

8) MONTHLY INVESTMENT REPORT

- **Investment Goal Statement**
- **Monthly Investment Reports**
- **Investment Manager Information**
- **MCERA Trust Fund Performance Information**

Presenter/s: Rich White referenced the above information previously distributed to the Board. Differences between the Statement of Plan Net Assets included in the financial report and the Unrealized Gain (Loss) Analysis included in the investment report were discussed. Mr. White reminded the Board that some investments report monthly, quarterly, and on a semi-annual basis. Mr. White explained that the Board will have the opportunity to discuss resource allocation during the next budget planning process. Staff is preparing reports using the best available information with a small amount of staff time, while obligated to continue progress on all other projects, policies, and planning expected by the Board.

Board Direction: Staff will make financial and investment reporting a priority and will check with Callan Associates on whether they could assist in obtaining monthly up to date information. This item should be brought back for further discussion and possible action at next meeting which will include information regarding the Accounting position.

Pending Board Approval

9) RETIREMENT ADMINISTRATOR'S REPORT

- **Meetings Attended**
- **PEPRA Update**
- **Error Correction Project Update**
- **FPPC Form 700 Filing Deadline Reminder**
- **Future Meeting Attendance**
- **IRS Voluntary Correction Program Update**

Presenter/s: Rich White referenced information previously distributed to the Board.

PEPRA Update

Pension reform legislation has been implemented by the County of Mendocino and the Board of Retirement. There are a few cleanup bills being considered in the State Legislature that were introduced prior to February 22, 2013. A full discussion of AB 1380, AB 160 (Alejo), SB 13 (Negrete-McLeod), and SB 24 (Walters) will take place at the SACRS Spring conference in May.

Error Correction Project Update

The Superior Courts and Russian River Cemetery District have finished their procedures with the error correction project. The County has been working very hard and it looks like the project is nearing completion.

FPPC Form 700

Annual Form 700 Statement of Economic Interests are due to the Clerk Recorder by April 2, 2013.

Update on IRS Determination Letter and VCP filing

A memo provided by Judith Boyette of Hanson Bridgett, who represents us in the VCP process, discussed the background and status of the IRS review that we initiated two years ago to ensure we take any necessary steps to maintain the qualified status of the system. The IRS review includes all of the benefits provided under MCERA, including the retiree medical benefits that were provided through the MCERA trust. We continue to work with the IRS and await their review and determination. Every 37 Act County System has filed using this IRS process and most have filed similar applications for assistance using the "voluntary correction program" or VCP, as have many public pension systems across the country. There is significant backlog and the IRS has not contacted counsel about MCERA's specific filing, although there have been discussions about issues that involve all 37 Act Systems. Since the IRS had not previously dealt with public pension plans to the extent they are currently, the IRS response has been delayed. Most provisions they are reviewing were drafted decades ago and the State Legislature did not understand at that time that federal tax rules might apply to plans established by State law. Counsel reports that the IRS is beginning to provide some information regarding general issues and we expect to be contacted in the normal IRS process. We cannot predict when this will be, but we will continue to update the Board as the IRS filing process moves forward.

Pending Board Approval

10) CLOSED SESSION

- **Pending disability applications update**
- **Potential Litigation pursuant to Government Code Section 54956.9(d)(4) - 1 case – Craig Lindburg overpayment**

REPORT OUT FROM CLOSED SESSION

Board Direction: There was no direction provided on pending disability applications. Staff will file a Small Claims Court action against Mr. Craig Lindburg.

11) COMMUNICATIONS

Presenter/s: Rich White referenced information previously distributed to the Board.

Please visit www.co.mendocino.ca.us/retirement/meetings.htm for the supporting documents include articles from the Wall Street Journal, the Sacramento Bee and The State Worker.

12) GENERAL BOARD MEMBER DISCUSSION

Mr. Sakowicz announced that his son will receive the Red Cross Hero of the Year Award on April 18, 2013 at 7:00 am at the Doubletree Hotel in Rohnert Park, CA. He will also be honored at the Board of Supervisors meeting by Congressman Huffman on Tuesday April 2, 2013 at 3:00 pm.

Mr. Goodman recommended the Callan Associates Intro to Investments Course held April 16 and 17, 2013.

Supervisor McCowen asked that staff look into changing the online agenda format for ease of usage.

ADJOURNMENT (2:50 p.m.)

Pending Board Approval

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Retirement Administrator

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MENDOCINO COUNTY
EMPLOYEES' RETIREMENT ASSOCIATION
625-B KINGS COURT
UKIAH, CALIFORNIA 95482-5027

Date: April 17, 2013
To: Board of Retirement
From: Richard White, Retirement Administrator
Subject: DISCUSSION AND POSSIBLE ACTION OF ACTUARIAL FUNDING POLICY

Summary:

The Board of Retirement received a presentation from Paul Angelo and Andy Yeung of The Segal Company which reviewed current funding practices and possible modifications to the actuarial funding policy of MCERA. The Board of Retirement continued the matter to this meeting and today will consider action to adopt elements of actuarial funding policies and incorporate them into a formalized policy document.

The rationale for the Board to consider changes to the actuarial funding policies includes The Segal Company's March 7, 2013 discussion letter as well as guidance regarding model actuarial practices as described in the March 1, 2013 document produced by the California Actuarial Advisory Panel.

Additionally, GASB Statements 67 and 68 require governmental plans to identify actuarially determined employer contributions determined using the funding policy adopted by the governing body. MCERA will have a readily accessible comprehensive statement of funding policy to use in meeting the new GASB requirements with the adoption of the actuarial funding policies being considered at this meeting.

Staff Recommendation:

Adopt new MCERA statement of actuarial funding policy for use in the June 30, 2013 actuarial valuation.

Background:

The Segal Company provides actuarial services to the Retirement Association such as the annual actuarial valuation and the triennial actuarial experience study. Another aspect of their actuarial practice is a review of the funding policy elements utilized by MCERA.

This review incorporates MCERA's current funding policy elements and reviews those policies in light of emerging model actuarial practice and in consideration of recently adopted standards by the Governmental Accounting Standards Board (GASB) and the California Actuarial Advisory Panel.

This type of review has been performed by The Segal Company for other California public pension plan clients.

Discussion:

A pension plan funding policy is designed to determine how much should be contributed each year in total by the employer and the active members to provide for the secure funding of benefits in a systematic fashion.

The Segal Company prepared a letter dated March 7, 2013 which contains the discussion points to be considered by the Board of Retirement in the establishment of an actuarial funding policy which include:

- General Funding Policy Goals
- General Discussion of Pension Plan Funding Policies
  - Actuarial Cost Method
  - Asset smoothing method
  - Amortization policy

A desired outcome of this discussion is for the Board of Retirement to adopt a statement of funding policy which will be used to set employer contribution rates beginning with the June 30, 2013 actuarial valuation, as well as to meet the new GASB reporting requirements which become effective for the Retirement Association for plan year 2013/2014 and fiscal year 2014/2015 for the employer.

The Board of Retirement should note that you received a copy of a "MCERA Funding Policy dated July 19, 2006 which was assumed to be the current policy of the Association. However, based upon discussion at your last meeting and through subsequent research it now appears that this funding policy was never formally adopted by the Board of Retirement.

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Attachments

SEGAL

THE SEGAL COMPANY
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VIA E-MAIL AND USPS

March 7, 2013

Mr. Richard A. White
Retirement Administrator
Mendocino County Employees' Retirement Association
625-B Kings Court
Ukiah, CA 95482

Re: Mendocino County Employees' Retirement Association
Proposed Significant Provisions for a Statement of Actuarial Funding Policy

Dear Richard:

We have prepared this discussion of the significant provisions that would comprise a statement of actuarial funding policy for MCERA. This review incorporates MCERA's current funding policy elements and reviews those policies in light of emerging model actuarial practice in this area. We have also included some alternative policy choices for the amortization component of the funding policy that may be considered by the Board for future actuarial valuations.

Another consideration in undertaking this funding policy review is that the Governmental Accounting Standards Board (GASB) recently adopted Statements 67 and 68 accounting reporting requirements for governmental pension plans and their sponsors[1] to identify the "actuarially determined (employer) contributions" determined using the funding policy adopted by the governing body. One of the by-products of this review is that MCERA will have a readily accessible comprehensive statement of funding policy to use in meeting the new GASB requirements. A sample statement of actuarial funding policy is provided in Attachment #3.

We note that a review of MCERA's current interest crediting policy is not included in this review of the actuarial funding policy, as that review will be provided under a separate cover later this year. As part of that review, we will discuss the Association's current practice of maintaining reserves and crediting of interest to those reserves using book value of assets. We

[1] Statement 67 replaces Statement 25 for use in reporting by the pension plan and Statement 68 replaces Statement 27 for use in reporting by the plan sponsor. In the case of MCERA, these new Statements will be effective for plan year 2013/2014 for the Retirement Association and fiscal year 2014/2015 for the employer.

will also discuss procedures recently adopted by other 1937 Act County Retirement Systems to keep track of shortfall in interest crediting, etc.

GENERAL FUNDING POLICY GOALS

This report starts with a general discussion of pension plan funding policy followed by detailed discussion of specific policy components along with various policy recommendations. This discussion is based on the following high level policy goals:

1. Future contributions and current plan assets should be sufficient to provide for all benefits expected to be paid to current active, inactive and retired members. This means that contributions should include the cost of current service plus a series of payments to fully fund (or recognize) any unfunded (or prefunded) past service costs.

2. The funding policy should seek a reasonable allocation of the cost of benefits to the years of service and the funding of such cost by the employer. This includes the goal that annual contributions should, at a minimum, maintain a close relationship to the cost of each year of service, and that the current service cost should bear a stable relationship to compensation.

3. The funding policy should seek to manage and control future employer contribution volatility to the extent reasonably possible, consistent with other policy goals.

4. The funding policy should support the general public policy goals of accountability and transparency. While these terms can be difficult to define in general, here the meaning includes that the funding policy should be clear both as to intent and effect, and that it should allow an assessment of whether, how and when the plan sponsor will meet the funding requirements of the plan.

Policy objectives 2 and 3 reflect two aspects of the general policy objective of "interperiod equity" (IPE). The "demographic matching" goal of policy objective 2 promotes ***intergenerational*** IPE, which seeks to have each generation of taxpayers incur the cost of benefits for the employees who provide services to those taxpayers, rather than deferring those costs to future taxpayers. The "volatility management" goal of policy objective 3 promotes ***period-to-period*** IPE, which seeks to have the cost incurred by taxpayers in any period compare equitably to the cost for just before and after.

GENERAL DISCUSSION OF PENSION PLAN FUNDING POLICIES

A pension plan funding policy is designed to determine how much should be contributed each year in total by the employer and the active members to provide for the secure funding of benefits in a systematic fashion. The funding policy starts with an actuarial cost method that allocates a portion of the total present value of the members' benefits to each year of service. In theory, contributing that "Normal Cost" for each year of service will be sufficient to fund all plan benefits, assuming that all actuarial assumptions are met including the assumed rate of investment return. In that ideal situation, plan assets will always be exactly equal to the value

today of all the past Normal Costs less benefit payments (the Actuarial Accrued Liability or AAL), and the current contribution will be only the current Normal Cost.

In practice, for a variety of reasons, the assets will be greater than or less than the AAL, leaving the plan overfunded (i.e., with a surplus) or underfunded (i.e., with an Unfunded Actuarial Accrued Liability or UAAL). The funding policy adjusts contributions to reflect any surplus or UAAL in a way that reduces short term, year-by-year volatility, but still assures that future contributions, together with current assets, will be enough to provide all future benefits.

A comprehensive funding policy is generally made up of three components:

1. An **actuarial cost method,** which allocates the total present value of future benefits to each year (Normal Cost) including all past years (AAL).

2. An **asset smoothing method**, which reduces the effect of short term market volatility while still tracking the overall movement of the market value of plan assets.

3. An **amortization policy**, which determines the length of time and the structure of the payments for the contributions required to systematically pay off the plan's UAAL.

Each of these policy components is currently in effect for MCERA. The Entry Age Normal (EAN) actuarial cost method currently used by the Board is the industry standard for governmental defined benefit plans, and we recommend its continued use. We also are not recommending any change to the asset smoothing method that was adopted by the Board as of June 30, 2005 (with an expansion of the market value corridor to 25% that was adopted as of June 30, 2009). However, we are recommending a change in the current single layer amortization policy. Accordingly, the next sections briefly review all three policy components, including a detailed discussion of the amortization policy.

ACTUARIAL COST METHOD

The ultimate cost (ignoring expenses) for the plan is determined by the actual benefits paid from the plan, offset by actual investment income. Each year, an actuarial valuation is completed to develop the next year's annual contribution for the pension plan. The valuation uses a funding method to allocate the ultimate expected costs for active members to each year of service, and thus among past service, current service, and future service. The cost attributed to the current year of service is the plan's Normal Cost. The accumulated cost attributed to past service is the plan's AAL. The plan's annual contribution is the Normal Cost, plus an amount to fund or "amortize" the plan's UAAL.

Currently, the plan is funded using the Entry Age Normal (EAN) cost method. This method is considered a reasonable funding method under the Actuarial Standards of Practice and is the only acceptable funding method under the recently adopted Statements 67 and 68 accounting standards promulgated by GASB. This method produces individual Normal Costs that are determined as a level percentage of covered payroll over each member's career. The AAL is calculated on an individual basis and is based on each individual's past Normal Costs, allocated

as a level percent of compensation. We would recommend that for funding purposes the Board continue the current EAN actuarial cost method.

ASSET SMOOTHING METHOD

We understand that the Board adopted a modification to the asset smoothing method as part of the June 30, 2005 valuation[2]. Under that modification, the difference between the actual market return and the expected return on the market value is recognized over a five-year period. The smoothed assets were further adjusted, if necessary, to be within 20% of the market value of assets (MVA). We understand that this market value corridor was expanded from 20% to 25% effective with the June 30, 2009 valuation.

The 5-year asset smoothing period currently used by the Board is still the industry standard and is by far the most common period used by public plans. That 5-year period, in our opinion, also meets the Actuarial Standards of Practice of being "sufficiently short," which allows the Board substantial flexibility in setting the MVA corridor, including no MVA corridor. For those reasons, we believe it is reasonable for the Board to continue the asset smoothing policy adopted in 2005, along with the corridor modification adopted in 2009.

One observation we have made is that a period of significant market change may be followed by a period of market correction. Depending on the magnitude of the market change and subsequent market correction, it may be advisable to perform an ad-hoc adjustment to change the pattern of the recognition of the deferred investment gains or losses. That was exactly what happened when we recommended that the Board combine the deferred investment gains as of June 30, 2011 and recognize those in level amounts over a 4-year period. We would recommend to the Board that the Statement of Funding Policy reserve to the Board the right to consider such future adjustments upon receiving the necessary analysis from its actuary. The funding policy could also describe in general terms the conditions that would typically lead to such an ad-hoc adjustment.

AMORTIZATION POLICY

General Discussions

With the exception that UAAL has to be amortized over a period not to exceed 30 years under Section 31453.5 of the 1937 CERL[3], governmental or public defined benefit plans, like MCERA, are not subject to specific external funding or funding policy requirements such as those established for single employer (corporate) and multiemployer (Taft-Hartley) defined

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[2] Prior to the June 30, 2005 valuation, only realized and unrealized appreciations were subject to smoothing. Furthermore, all such amounts were smoothed irrespective of the difference between actual and expected market returns for the plan year.

[3] Note that Section 7522.52 was recently enacted as part of the California Public Employees' Pension Reform Act (CalPEPRA) of 2013. Under that Section of the Act, a public pension plan has to have at least a 120% funded ratio, and meet other conditions, before any negative UAAL (or surplus) may be amortized and used to reduce the Normal Cost of the plan.

benefit pension plans under the Employee Retirement Income Security Act (ERISA) and the Internal Revenue Code (IRC). The prior accounting standards promulgated by GASB under GASB Statements 25 and 27 define an Annual Required Contribution (ARC) that, despite its name, is actually the amount of expense that the employer must recognize each year. Also, the prior GASB accounting standards provide considerable policy latitude when determining the ARC[4].

Even though this leaves governmental or public plans relatively free to set funding policy, it is worth noting that all long term funding policy structures – corporate, multiemployer and GASB – take the same form, at least for underfunded plans (plans with a UAAL):

1. Contribute the Normal Cost for the year, and

2. Contribute an additional amount that will fully fund ("amortize") any UAAL over a period of years.

Implicit in this form of policy is *a funding target of 100 percent*, since at the end of the amortization period the plan will be fully funded. This is in contrast to "corridor" or "collar" methods that allow contributions equal to only the Normal Cost as long as the plan is within, for example, 10 percent of being fully funded. The funding policy presented in this discussion is based on the UAAL amortization method because it targets 100 percent funding of the AAL, and accordingly is well established for all types of pension plans.

For MCERA, the UAAL amortization period was reset to 30 years by the Board at the time of the June 30, 2009 valuation. Before that reset, the amortization period was down to 9 years as of June 30, 2008.

A general review of the UAAL amortization policy would include both the amortization periods and the structure of the amortization payments. A detailed discussion of the selection of the UAAL amortization period and structure is presented in the following sections. For now, we note only a distinction between the amortization of UAAL and the amortization of surplus.

For plans with a UAAL, longer amortization periods result in lower current contributions and a longer period before the contribution reverts to the Normal Cost. Longer periods also produce lower contribution volatility. In contrast, shorter amortization periods get to full funding more rapidly but at the price of higher current contributions and higher contribution volatility.

That leaves the question of funding policy for overfunded plans, those that have a surplus instead of a UAAL. The policy structure used by most public plans when determining

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[4] As previously discussed, GASB has recently adopted Statements 67 and 68 that replace Statements 25 and 27 for accounting and financial reporting standards for governmental pension plans. The new Statements completely eliminate the linkage between actuarial funding and financial reporting found in the prior Statements. In this discussion, unless noted otherwise, all references to GASB standards relate to the prior standards, which were viewed as an authoritative guide to the range and limits of current funding policy practices used by most public plans before GASB adopted the new reporting standards.

contribution amounts when there is a surplus is that the surplus is amortized the same way as a UAAL, except that instead of producing an amortization *charge*, there is an amortization *credit*. This means that the contribution amount is the Normal Cost *minus* an amount that will in effect spend down the surplus over the amortization period.

Unlike for UAAL, longer amortization periods now result in a lower amortization credit, and so produce a higher current contribution (but still less than the Normal Cost). Shorter amortization periods for surplus take credit for the surplus more quickly. This produces a lower contribution, but it also means a shorter period before the contribution reverts up to the full Normal Cost.

While this policy structure still reflects a funding target of 100 percent, amortizing surplus results in an annual contribution that is less than the Normal Cost. This can lead to a full or partial "contribution holiday" where contributions are less than the regular, ongoing cost of current service, especially if the surplus amortization period is relatively short. Recent history has led to a reevaluation of this condition for public pension plans.

One of the most significant changes in industry thinking and practice to come from the market experience around the turn of the 21st century is the way surplus is recognized in public pension funding policy. In many cases, short amortization period for surplus in the late 1990s led to reductions in contributions below the level of Normal Cost, sometimes even to complete "contributions holidays" of zero contributions. As the market reversals in the early 2000s led to resumption of contributions in most pension plans, the general lesson was that a contribution level less than the Normal Cost (that is, funding the Normal Cost out of surplus) should always be viewed with caution, as ultimately the Normal Cost will reemerge as the basic cost of the plan.

Selection of Amortization Structure and Methods

Setting an amortization policy involves a few policy decisions and considerations in addition to selecting the amortization periods. Here is a brief description of those issues, followed by a detailed discussion of amortization periods. That discussion includes the current MCERA UAAL amortization policy elements and some possible alternatives that may be considered by the Board.

- Single amortization layer for the entire UAAL or surplus, or separate amortization layers for each source of UAAL or surplus.
- Closed (fixed) period amortization or open (rolling) period amortization.
- Level dollar or level percent of pay amortization payments.
- For separate amortization layers, when is it appropriate to "restart" or otherwise combine the amortization layers.

Single vs. Multiple Amortization Layers and Fixed vs. Rolling Amortization Periods

Historically many public pension systems (including MCERA) amortized their UAAL as a single amount. Because new amounts of UAAL arise each year (due to gains and losses, assumption changes and plan amendments) this requires a policy choice as to how to determine the remaining amortization period each year.

A "closed" or fixed period works like a home mortgage and so gets shorter each year. However, unlike a home mortgage, for a pension plan this eventually leads to an unstable situation where each year's gain or loss (or other UAAL changes) is amortized over a shorter and shorter period. Eventually the policy needs to be amended to restart the amortization period at something like its original period. This is the situation that arose at MCERA in 2009, when the single layer fixed amortization period was reset to 30 years.

To avoid this need to periodically revisit the policy, some systems use an "open" or rolling amortization period. This is analogous to refinancing your home mortgage each year, but including any new UAALs arising each year. While this is a stable policy, it also means that there is no date by which the UAAL is fully amortized, which raises questions of accountability and intergenerational equity.

To address both the stability and the accountability issues, many public systems have adopted the "layered" approach used by all corporate and multiemployer pension plans. Here each new amount of UAAL is amortized over a separate, fixed period. This approach also has the advantage of identifying the source of each dollar of current UAAL, as well as when each portion of UAAL will be fully amortized.

The current MCERA policy uses a single layer closed period amortization for all sources of UAAL. Under that approach, the entire UAAL is amortized over a single layer fixed amortization period, with 27 years remaining as of the June 30, 2012 valuation. This single layer approach does not provide information as to when each new separate portion of underfunding originated and how much of each such original amount of UAAL remains unamortized. It also lacks the flexibility to allow underfunding from different sources to be amortized over different periods of time. Finally, as occurred with MCERA in 2009, this policy needs to be reset periodically when the single, fixed remaining amortization period becomes too short to be practical.

All of those short comings can be addressed by using a multiple layers approach to amortizing the UAAL. We note that this is the structure required by the ERISA/IRC rules for corporate and multiemployer plans, and is increasingly common for public pension plans, especially in California.

Based on all of the information above, we recommend that a layered approach be adopted by MCERA for all future changes in UAAL.

Level Dollar vs. Level Percent of Pay Amortization

The amortization payments may be patterned in one of two ways, as a level dollar amount or as a level percentage of pay. The ERISA/IRC rules for corporate and multiemployer plans require level dollar amortization, similar to a typical home mortgage. However, by far most public plans use level percent of pay amortization where the payments increase each year in proportion to the assumed payroll growth for the entire active workforce. That means they start lower than the corresponding level dollar payments, but then increase until they are higher. The level dollar method is more conservative in that it funds the UAAL faster in the early years. For the same reason, it also incurs less interest cost over the amortization period.

The current MCERA policy uses level percent of pay amortization. The justification for using level percent of pay payments is that it is consistent with the Normal Cost (which for pay related plans like MCERA is almost always determined as a percentage of pay) and that it provides a total cost that remains level as a percentage of pay. In contrast, level dollar amortization of UAAL will produce a total cost that decreases as a percentage of pay over the amortization period. Note that both these results depend on actual payroll growth meeting the assumed payroll growth assumptions.

We are not recommending any change to MCERA's current use of level percent of pay amortization.

Negative Amortization

Another important aspect of level percent of pay amortization is that, unlike a level dollar amortization, under level percent of pay amortization the UAAL may increase during the early years of the amortization period even though contributions are being made to amortize the UAAL. This happens because with level percent of pay amortization, the lower early payments can actually be less than interest on the outstanding balance, so that the outstanding balance increases instead of decreases. For typical public plan assumptions (including MCERA), this happens whenever the amortization period is longer than about 18 years. This means that the outstanding balance of the UAAL does not decrease until there are 18 or fewer years left in the amortization period. It also means that the outstanding balance will not fall below the original amount until some years after that time.

A comparison of the contributions under different periods using level percent of payroll amortization is provided in Attachment 1. Attachment 2 shows the resulting UAAL balances for a sample starting UAAL layer of $1 million under various level percent of pay amortization periods. While there is nothing inherently wrong with negative amortization, the Board should be aware of its consequences, especially for amortization periods substantially longer than 18 years.

When is it Appropriate to "Restart" the Amortization Layers?

Segal would recommend to the Board that MCERA continue to amortize its current UAAL of $126.5 million as of June 30, 2012 over a single fixed period but that any new increases or decreases in underfunding would be amortized over separate, multiple layers each with its own fixed amortization periods, as further discussed below.

Under this recommended approach, there will be a series of these layers, one for the original UAAL from the June 30, 2012 valuation and one from each year's gain or loss as well as from any other changes in the UAAL. This is a perfectly manageable procedure and in fact provides a history of sources of the plan's UAAL in any year. Also note that in practice the number of layers will be limited by the length of the amortization period as eventually layers are fully amortized, and so are no longer part of the series of layers.

Under the recommended amortization policy, there may be conditions where the Board would want to consider action whereby all the amortization layers are wiped out ("considered fully amortized") and the series is restarted. For example, this would very likely be appropriate when the plan goes from surplus to UAAL or from UAAL to surplus. This would be done to avoid possible anomalies that may appear unreasonable.

In particular, under the layered approach, it is possible for a plan with a UAAL to, nevertheless, have a net amortization credit in the current year. While that result is actuarially consistent, it is also very counterintuitive, since a UAAL would seem to require a net amortization charge. In this situation, the Board may want to consider combining all the UAAL layers and restarting the amortization.

The above is only one example of when the amortization layers might be restarted or combined. Another is when there are alternating years of gains and losses of relatively equal size. To address these situations as part of its funding policy, the Board should reserve the right to restart or otherwise combine the amortization layers whenever appropriate circumstances arise. In particular, we recommend that all amortization layers be restarted whenever the plan switches from an underfunded position to surplus or vice versa.

Amortization Periods

The UAAL amortization periods for public plans typically range from 15 to 30 years, with 30 years being the maximum allowable period under the prior GASB accounting standards. As discussed above under "General Funding Policy Goals," the amortization period should not be set so short that it creates too much volatility in the contributions yet it should not be so long that it constitutes a shift of cost to future funding sources. Balancing these two conflicting considerations is a key element of setting amortization periods. Another consideration is how much and in what circumstances negative amortization is an acceptable consequence of using longer amortization periods.

Plans that amortize the UAAL in layers by source sometimes use different amortization periods for different sources of UAAL. Generally such plans amortize actuarial gains or losses over

shorter periods (15 to 20 years or less) and UAAL changes due to assumption or method changes and plan amendments over longer periods (often the 30-year prior GASB limit). We will discuss that further in the following sections.

Selection of Amortization Periods for Actuarial Gains or Losses

When selecting the gain or loss amortization period, a review of both historical practices and recent experience is instructive. For amortizing actuarial gains or losses, a 15-year amortization period has been used in the ERISA/IRC rules for multiemployer plans and also for corporate plans prior to the 1987 overhaul of the corporate pension funding rules. By the late 1990s, as plans came close to being fully funded or even overfunded there was a trend toward amortization periods as short as 10 or even 5 years. For example, in 1987, the ERISA/IRC rules for corporate plans were changed to reduce the amortization period for gains and losses from the original 15 years to 5 years. This led to rapid reductions in contributions when the large investment gains from that period were recognized over such short periods. The investment losses in the early 2000s led to similar cost increases except for public plans that lengthened their amortization periods substantially once those losses started to emerge.

Based on this experience, we recommend a balance between reducing contribution volatility by using a longer amortization period and maintaining a closer relationship between contributions and routine changes in the UAAL by using a shorter amortization period. Using a shorter amortization period also reduces or avoids negative amortization as previously discussed. Based on these three considerations we generally recommend gains and losses amortization periods in the range of 15 to 20 years.

Selection of Amortization Periods for Assumption or Method Changes

Assumption or method changes, such as a modification in the mortality assumption to anticipate an improvement in life expectancy for current active members when they retire, often include a long term remeasurement of plan costs and liabilities. For assumption changes, in effect, such changes take gains or losses that are expected to occur in the future and build them into the cost and liability measures today. For method changes, such changes fundamentally redetermine how costs are allocated to years of service for active members. In either case the long term nature of these changes could justify using a longer amortization period than that used for actuarial gains or losses, in the range of 20 to 25 years for assumption changes or even 30 years for method changes[5].

Selection of Amortization Periods for Plan Amendments

While some plans have used 30 years to amortize the UAAL from plan amendments, recent actuarial practice has evolved to use a much shorter period. As discussed above, amortization generally involves a balance between matching member demographics and managing

[5] Note that the longer amortization for method changes would be most appropriate for substantial changes, such as going from Projected Unit Credit method to the Entry Age Normal (EAN) method. This is not a consideration for MCERA as the Association is already using the EAN method.

contribution volatility. However, for plan amendments, volatility control is not a consideration. That leads to the following arguments and considerations for using a short amortization period:

- Matching the amortization period to the average future working lifetime of the active members receiving the benefit improvement
- Matching the amortization period to the average life expectancy of the retired members receiving the benefit improvement
- Avoiding "negative amortization" for UAAL changes that are within the control of or result from actions taken by the plan sponsor
- Considering any special circumstances that may apply to a specific benefit improvement

The first two considerations would usually lead to at most a 15 to 20-year amortization period while the third consideration would limit the period to around 18 years or less. Accordingly, we would recommend that the Board consider a maximum amortization period for plan amendments of 15 years.

As an example of the fourth consideration, current practice clearly favors shorter amortization periods for Golden Handshakes or early retirement incentive type programs (ERIP) due to the relatively short period of expected financial impact. For example, a GFOA 2004 Recommended Practice states that "the incremental costs of an ERIP should be amortized over a short-term payback period, such as three to five years. This payback period should match the period in which the savings are realized". Recent comments to GASB by public plan actuaries are consistent with this view.

A demographically based amortization period for an ERIP could range from 0 years (for an immediate recognition of the entire UAAL due to the ERIP) to a period of 10 years. These different periods corresponded to various alternative periods of cost savings or benefit payments under such a program. We recommend that the actuarial funding policy include a relatively short default amortization period for an ERIP (such as five years) along with a statement that a recommendation by the actuary to the Board on the amortization period be included as part of the required actuarial cost study for such ERIP.

Amortization of Surplus

As discussed above, one of the most significant changes in industry thinking and practice to come from the market experience around the turn of the 21st century is the way surplus is recognized in public pension funding policy. Generally, current practice is reflected in the goal of keeping contributions close to the cost of current service, i.e., the Normal Cost.

One possible response would be to require that contributions never fall below the Normal Cost level. However, that would be inconsistent both with the current GASB accounting standards and with the actuarial principle that funding policy should target 100 percent funding, and not sustain a level that is either higher or lower than 100 percent. That leads to the general

conclusion that surplus should be amortized over the longest currently permissible period of 30 years. For example, CalPERS uses a 30-year amortization period when there is a surplus. This same 30-year period can also be found as Recommendation 7 in the Report of the (California) Public Employees Post-Employment Benefits Commission. We recommend that the actuarial funding policy include a 30-year period for surplus amortization[6].

Selection of Amortization Periods for Past vs. Future UAAL

As the Board deliberates modifying the amortization periods in its current funding policy, we recommend that the Board separate the discussions between (1) the amortization of the current (past) UAAL and (2) amortization of future changes in the UAAL. Most of the detailed discussion above relates to amortization periods for <u>future</u> changes in the UAAL.

As noted earlier in this discussion, as of June 30, 2012, the UAAL for the pension plan was $126.5 million. Based on the policy considerations underlying this discussion, we do not believe there is compelling reason or justification to lengthen the current fixed 27-year amortization period for the UAAL as of June 30, 2012. The current period is significantly higher than the 15-20 year range that we would recommend for gains and losses, and is somewhat outside of the range of 20-25 years that we would recommend for assumption changes. Also, any change to a longer amortization period would not provide substantial contribution rate relief and would produce additional negative amortization in the next few years.

However, if the Board wishes to accelerate the plan's progress to 100% funding, the most direct way to do so would be to reamortize the current UAAL over a period shorter than 27 years.

Alternative Amortization Periods for Future Changes in UAAL

Based on the above discussions, here are some alternative sets of amortization periods that the Board may want to consider with respect to any <u>future</u> changes in UAAL.

	<u>Current Policy*</u>	<u>Alternative #1</u>	<u>Alternative #2</u>	<u>Alternative #3</u>
Actuarial Gains or Losses	27	15	20	20
Assumption or Method Changes	27	20	20	25
Plan Amendments	27	15	15	15
ERIPs	27	5	5	5
Actuarial Surplus	27	30	30	30

** Years remaining as of the June 30, 2012 actuarial valuation. The original period was 30 years as of June 30, 2009.*

[6] Since CalPEPRA has imposed a new requirement that surplus be amortized only when the funded ratio is at least 120%, along with other conditions, we would propose that a reference be made in the Board's funding policy to that requirement.

Consistent with the above discussion, all the alternatives use relatively short amortization periods for plan amendments and ERIPs and a long period for surplus. The alternatives differ only in their treatment of the annual gains and losses and the less frequent remeasurements of the UAAL (assumption and method changes).

Alternative #2 is based on using the same period for both gains and losses and assumptions and method changes. Alternative #1 uses the shorter end of the recommended ranges, while Alternative #3 uses the long end of the ranges if the Board wants to apply different periods for these sources of changes in UAAL.

Please note that with all of the above alternatives, we are continuing to recommend that the Board maintain its current policies of using closed (fixed) amortization periods and level percent of pay amortization.

Recent Developments Related to Actuarial Funding/Reporting From the CAAP

While systems can no longer look to GASB for guidance on funding policy, there is another source of guidance that is in the process of development. The California Actuarial Advisory Panel (CAAP) was created by the passage of Senate Bill 1123 of the 2008/2009 legislative session and consists of eight public sector actuaries appointed by the various appointing powers pursuant to Section 7507.2 of the Government Code. We note that one of Segal's principal actuaries, Paul Angelo, serves on the CAAP as an appointee of the University of California.

The CAAP has been studying actuarial funding policies for some time and recently issued a comment draft of a statement of model funding policies. While the recommendations and opinions of the Panel are nonbinding and advisory only, such viewpoints are still anticipated to have an influence on the retirement systems that operate in California as they select and finalize their individual funding approaches.

Because the CAAP's work in this area is based on Segal's and other actuaries' experience with California plans like MCERA, it is no coincidence that the elements of the funding policy developed by Segal for MCERA are in compliance with the CAAP model policies. In particular, those model policies include preferred ranges for amortization periods that are similar to the three alternatives presented in the above section[7].

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[7] The "model" funding periods are expressed as a range in the draft model actuarial funding policy. Those periods are as follows:

Actuarial Gains or Losses	15 to 20 years
Assumption or Method Changes	15 to 25 years
Plan Amendments	Up to 15 years
ERIPs	5 years or less
Actuarial Surplus	30 years

Cost Impact – Future Changes in UAAL

It is not possible to quantify in advance the full future cost impact associated with adopting any of the alternative amortization periods simply because the plan's future changes in UAAL are not yet identified. However, for amortizing actuarial gains or losses we can measure the effect that a change from the current 27 years (as of the June 30, 2012 valuation) to the 15-20 year recommended range would have on MCERA's $23.2 million in unrecognized investment losses as of June 30, 2012. Over the next four valuations, such a change in the gain/loss amortization period would increase the annual payroll cost required to amortize that $23.2 million in unrecognized investment losses from about 2.1% of payroll (paid for 27 years) to about 3.1% of payroll (paid for 15 years) or 2.5% of payroll (paid for 20 years)[8].

Cost Impact – Reamortization of Past UAAL

As discussed above, the Board may consider reamortizing the total UAAL over a shorter single period to accelerate the plan's progress to 100% funding. Under alternative amortization periods, the changes in the current employer UAAL contribution rate of 13.16% determined in the June 30, 2012 valuation would be as follows:

Single 25-year period:	Increases the total UAAL contribution rate by 0.63% of payroll
Single 20-year period:	Increases the total UAAL contribution rate by 2.80% of payroll
Single 18-year period:	Increases the total UAAL contribution rate by 4.02% of payroll
Single 15-year period:	Increases the total UAAL contribution rate by 6.49% of payroll

For another illustration of cost impact, the charts in Attachments #1 and #2 compare the annual UAAL payments and the outstanding balance of the UAAL for a sample change in UAAL of $1 million under different amortization periods. Please note that these Attachments have been prepared using the assumptions approved for the most recent valuation as of June 30, 2012.

Adjustment for 12-Month Delay in Rate Implementation

In order to allow the employers to more accurately budget for pension contributions and other practical considerations, the contribution rates determined in each actuarial valuation (as of June 30) will apply to the fiscal year beginning 12 months after the valuation date. As a result of that scheduled delay, the UAAL contribution rates in a subsequent valuation will have to be adjusted to reflect either a gain or a loss when the actual contribution rate paid is higher or lower than the contribution rate calculated in the prior year's valuation.

Note that the contribution gain or loss as a result of this anticipated delay in implementing the contribution rate may be built into the development of the UAAL rate for the current valuation, rather than waiting until the following valuation and reflecting the delay as a gain or loss in the UAAL. MCERA's current practice, which is the most common practice, is to reflect the delay

[8] In calculating these contribution rates, we have offset the $23.2 million in unrecognized investment losses with the $3.4 million Contingency Reserve.

as a gain or loss in the following valuation, rather than building the anticipated delay into the development of the current rate. We recommend no change to this practice for MCERA at this time based on the expectation that in the long term, there would be about the same number of occurrences of contribution gains or losses.

We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

We look forward to discussing this with you and the Board.

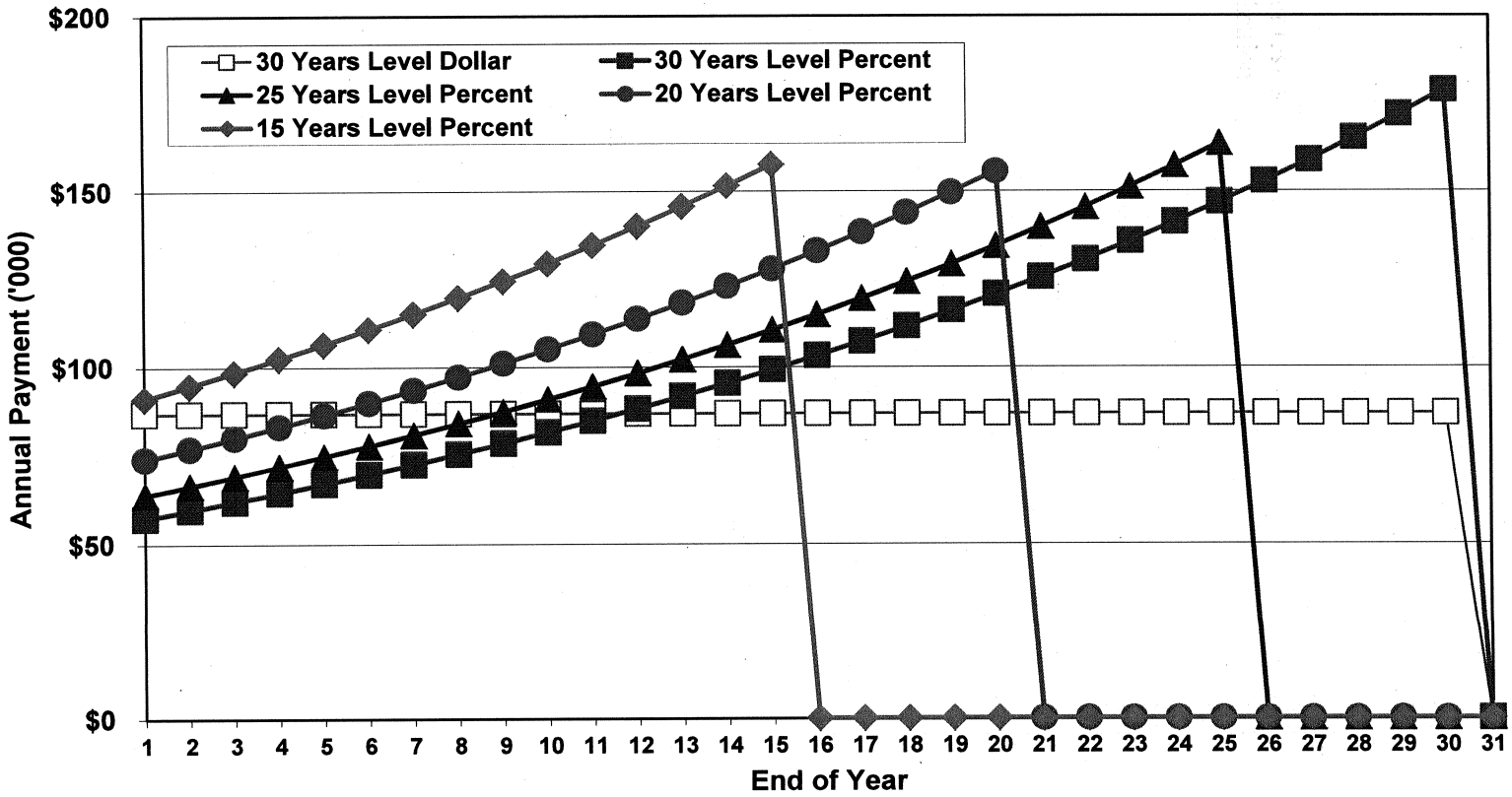
Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President and Actuary

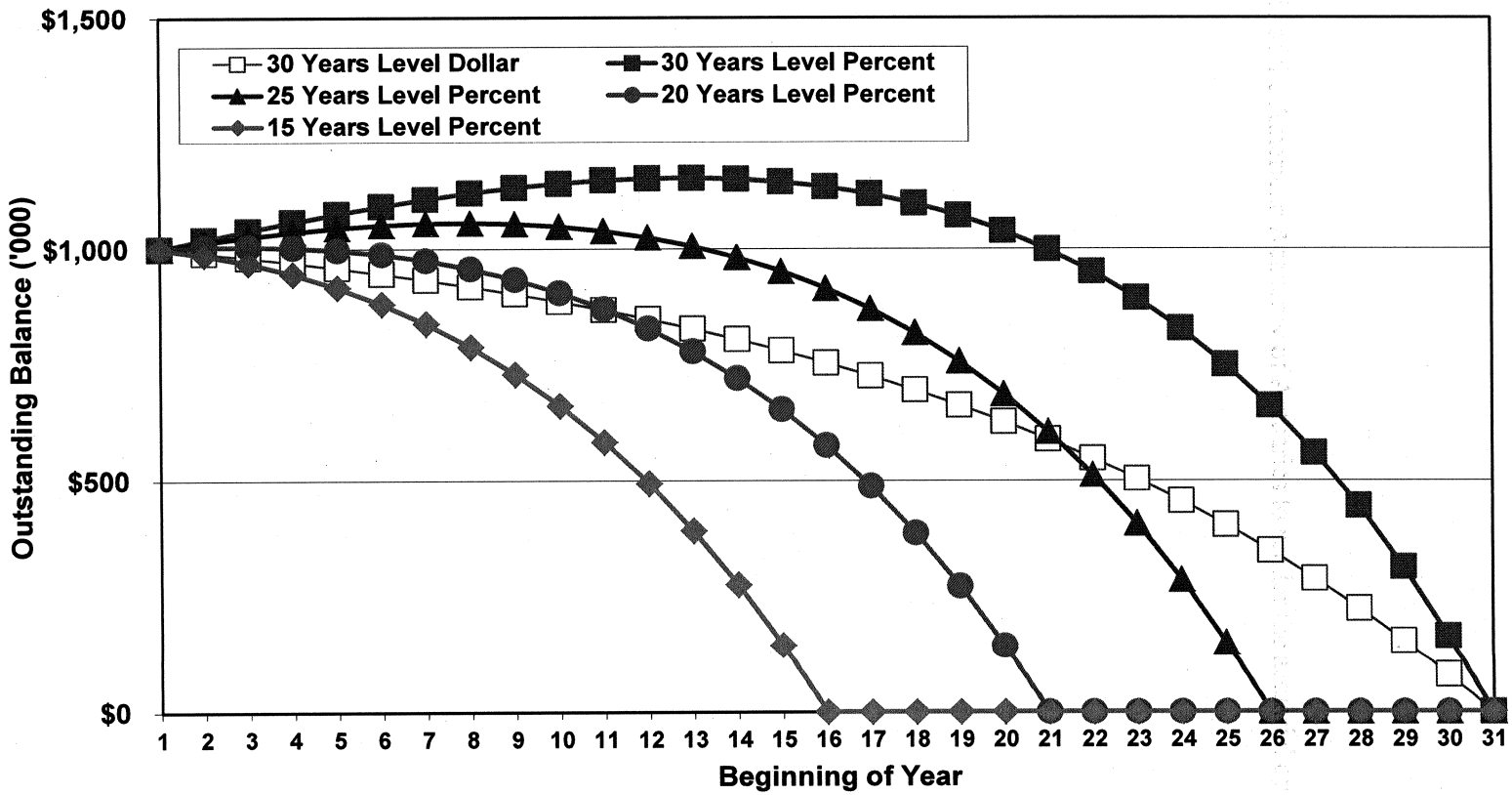
Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Associate Actuary

DNA/gxk
Enclosures

Attachment #1 - Illustration of Payments Under Different Amortization Periods (on $1 million UAAL)



Attachment #2 - Illustration of Outstanding UAAL Balance Under Different Amortization Periods



Attachment #3

Mendocino County Employees' Retirement Association

Draft of Statement of Actuarial Funding Policy

Introduction

The purpose of this Statement of Actuarial Funding Policy is to record the funding objectives and policies set by the Board of Retirement (Board) for the Mendocino County Employees' Retirement Association (MCERA). The Board establishes this Statement of Actuarial Funding Policy to help ensure future benefit payments for members of MCERA. In addition, this document records certain policy guidelines established by the Board to assist in administering MCERA in a consistent and efficient manner.

This Statement of Actuarial Funding Policy supersedes any previous statements. It is a working document and may be modified as the Board deems necessary.

Goals of Actuarial Funding Policy

1. To achieve long-term full funding of the cost of benefits provided by MCERA;

2. To seek reasonable and equitable allocation of the cost of benefits over time; and,

3. To minimize volatility of the plan sponsor's contribution to the extent reasonably possible, consistent with other policy goals.

Funding Requirement and Policy Components

MCERA's annual funding requirement is comprised of a payment of the Normal Cost and a payment on the Unfunded Actuarial Accrued Liability (UAAL). The Normal Cost and the amount of payment on UAAL are determined by the following three components of this funding policy:

I. Actuarial Cost Method: the techniques to allocate the cost/liability of retirement benefit to a given period;

II. Asset Smoothing Method: the techniques that spread the recognition of investment gains or losses over a period of time for the purposes of determining the Actuarial Value of Assets used in the actuarial valuation process; and

III. Amortization Policy: the decisions on how, in terms of duration and pattern, to reduce the difference between the Actuarial Accrued Liability and the Valuation Value of Assets in a systematic manner.

I. Actuarial Cost Method:

The Entry Age Normal method shall be applied to the projected retirement benefits in determining the Normal Cost and the Actuarial Accrued Liability.

II. Asset Smoothing Method:

The investment gains or losses of each valuation period, as a result of comparing the actual market return and the expected return on Valuation Value of Assets, shall be recognized in level amount over 5 years in calculating the Actuarial Value of Assets. Deferred investment gains or losses cannot exceed 25% of the Market Value of Assets.

The Board reserves the right to consider future ad-hoc adjustments to change the pattern of the recognition of the deferred investment gains or losses after a period of significant market change followed by a period of market correction upon receiving the necessary analysis from its actuary.

III. Amortization Policy:

- The UAAL, (i.e., the difference between the Actuarial Accrued Liability and the Valuation Value of Assets), as of June 30, 2012 shall continue to be amortized over its declining 30-year schedule (with 27 years remaining as of June 30, 2012);
- Any new UAAL as a result of actuarial gains or losses identified in the annual valuation as of June 30 will be amortized over a period of __ years;
- Any new UAAL as a result of change in actuarial assumptions or methods will be amortized over a period of __ years;
- Unless an alternative amortization period is recommended by the Actuary and accepted by the Board based on the results of an actuarial analysis:
    a. with the exception noted in b. below, the increase in UAAL as a result of any plan amendments will be amortized over a period of 15 years;
    b. the increase in UAAL resulting from a temporary retirement incentive will be funded over 5 years;
- UAAL shall be amortized over "closed" amortization periods so that the amortization period for each layer decreases by one year with each actuarial valuation;
- UAAL shall be amortized as a level percentage of payroll so that the amortization amount in each year during the amortization period shall be expected to be a level percentage of covered payroll, taking into consideration the current assumption for general payroll increase; and
- If an overfunding exists (i.e., the total of all UAAL becomes negative so that there is a surplus and the amount of such surplus is in excess of 20% of the AAL per Section 7522.52 of CalPEPRA), such actuarial surplus and any subsequent surpluses will be amortized over an "open" amortization period of 30 years. Any prior UAAL amortization layers will be considered fully amortized, and any subsequent UAAL will be amortized as the first of a new series of amortization layers, using the above amortization periods.

Other Policy Considerations

A. Lag between Date of Actuarial Valuation and Date of Contribution Rate Implementation

In order to allow the employer to more accurately budget for pension contributions and other practical considerations, the contribution rates determined in each valuation (as of June 30) will apply to the fiscal year beginning 12 months after the valuation date. Any shortfall or excess contributions as a result of the implementation lag will be amortized as part of MCERA's UAAL in the following valuation.

Any change in contribution rate requirement that results from plan amendment is generally implemented as of the effective date of the plan amendment or as soon as administratively feasible.

B. Actuarial Assumptions Guidelines

The actuarial assumptions directly affect only the timing of contributions; the ultimate contribution level is determined by the benefits and the expenses actually paid offset by actual investment returns. To the extent that actual experience deviates from the assumptions, experience gains and losses will occur. These gains (or losses) then serve to reduce (or increase) the future contribution requirements.

Actuarial assumptions are generally grouped into two major categories:

- Demographic assumptions – including rates of withdrawal, service retirement, disability retirement, mortality, etc.
- Economic assumptions – including price inflation, wage inflation, investment return, salary increase, etc.

The actuarial assumptions represent the Board's best estimate of anticipated experience under MCERA and are intended to be long term in nature. Therefore, in developing the actuarial assumptions, the Board considers not only past experience but also trends, external forces and future expectations.

C. Glossary of Terms

Actuarial Funding Method – A technique to allocate present value of projected benefits among past and future periods of service.

Actuarial Accrued Liability – The portion of the present value of projected benefits that is attributed to past service by the actuarial funding method.

Normal Cost – The portion of the present value of projected benefits that is attributed to current service by the actuarial funding method.

Entry Age Normal Actuarial Cost Method – A funding method that calculates MCERA's Normal Cost a level percentage of pay over the working lifetime of the plan's members.

Actuarial Value of Assets – The market value of assets less the deferred investment gains or losses not yet recognized by the asset smoothing method.

Valuation Value of Assets – The value of assets used in the actuarial valuation to determine contribution rate requirements. It is equal to the Actuarial Value of Assets reduced by the value of any non-valuation reserves.

Unfunded Actuarial Accrued Liability – The portion of the Actuarial Accrued Liability that is not currently covered by plan assets. It is calculated by subtracting the Actuarial Accrued Liability from the Valuation Value of Assets.

Valuation Date – June 30 of every year.

SEGAL | **MCERA - Actuarial Funding Policy**

Actuarial Funding Policy
March 20, 2013

PAUL ANGELO, FSA
Senior Vice President and Actuary
ANDY YEUNG, ASA
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The Segal Company

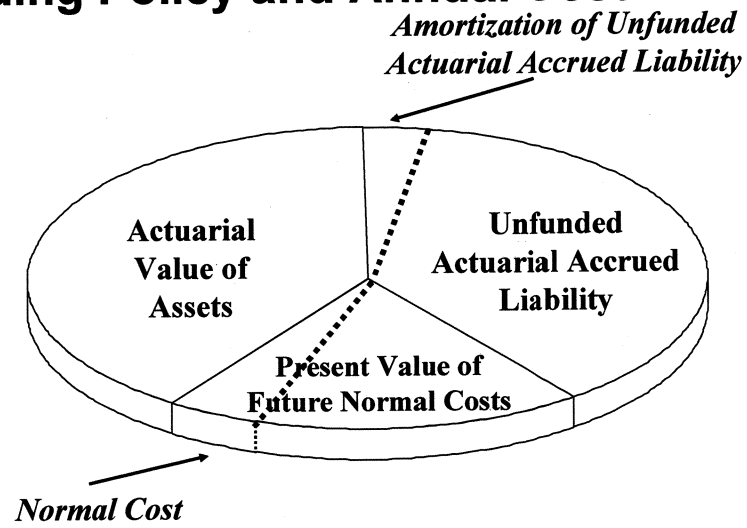
5238944

Funding Policy Components

- **Actuarial Cost (Funding) Method** – allocates costs to time periods, past vs. future
- **Asset Smoothing Method** – assigns a value to assets for determining contribution requirements
- **UAAL Amortization Policy** – how, and how long to fund difference between liabilities and assets

- Interest crediting and excess earnings policy
  - Unique to 1937 Act county systems
  - Generally separate from funding policy

Funding Policy and Annual Cost



General Policy Objectives

1. Future contributions plus current assets sufficient to fund all benefits for current members
   - Contributions = Normal Cost + full UAAL payment
2. Reasonable allocation of cost to years of service
   - Both expected costs and variations from expected costs
3. Reasonable management and control of future employer contribution volatility
   - Consistent with other policy objectives

General Policy Objectives

4. Support public policy goals of accountability and transparency
   - Clear in intent and effect
   - Allow assessment of whether, how and when sponsor will meet funding requirements
   - Enhance credibility and objectivity of cost calculations

General Policy Objectives

- Policy objectives 2 and 3 reflect two aspects of the general policy objective of "interperiod equity" (IPE).
- Objective 2 promotes "demographic matching"
  - intergenerational interperiod equity
- Objective 3 promotes "volatility management"
  - period-to-period interperiod equity
- These two aspects of IPE tend to move funding policy in opposite directions.
  - policy objectives 2 and 3 combine to seek to balance intergenerational and period-to-period IPE
  - demographic matching vs. volatility management

MCERA Current Funding Policy

- Cost method
  - Entry Age Normal (EAN)
- Asset smoothing method
  - 5-year smoothing period with 25% market value corridor (20% before 6/30/2009 valuation)
  - Reaffirmed by the Board in 2009
- UAAL amortization policy
  - UAAL amortized as a single layer
  - Reset from 9 years (in 6/30/2008 valuation) to 30 years (in 6/30/2009 valuation)
    - 27 years left in 6/30/2012 valuation
  - Level percent of pay amortization

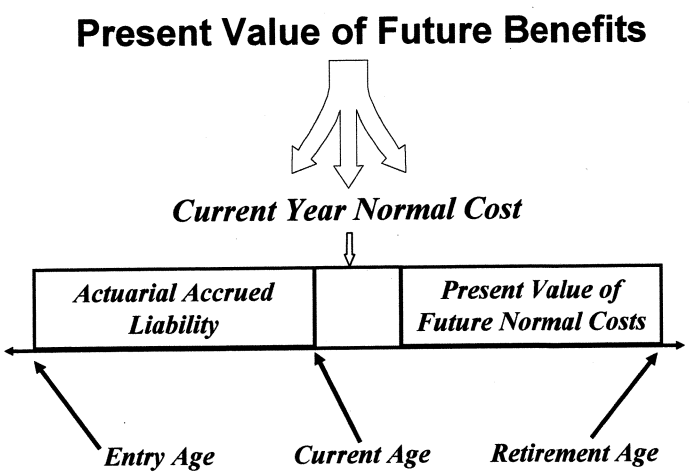
Review of MCERA Funding Policy

- Review all three current funding policy components
  - Cost method, asset smoothing, UAAL amortization
  - Incorporate all components into a comprehensive statement of funding policy
    - Review and adoption by the Board
    - Increased importance due to GASB changes
- Separate topic not a part of this review
  - Interest crediting & excess earnings allocation policy
    - MCERA uses book value for calculating interest and maintaining reserves
    - Will be reviewed later this year

Funding Policy Recommendations

- No change to Entry Age Normal cost method
- No change to asset smoothing method
- Emerging model practices for UAAL amortization
  - Separate amortization layers for each source of UAAL
  - Plan Amendments
    - Shorter periods than for other sources of UAAL
    - Particularly for Early Retirement Incentive Programs
  - Surplus
    - Longer periods than for UAAL
    - Allows consideration of other Surplus management tools
      - Minimum surplus requirement

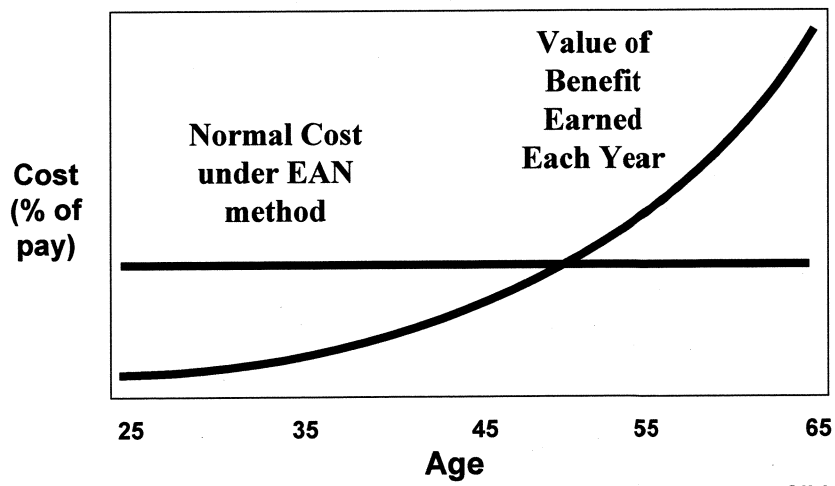
Actuarial Cost Method



Entry Age Normal Method (EAN)

- Direct allocation of cost
- Designed to produce Normal Cost that stays level as a percentage of pay
  - Normal Cost Percentage = percentage of future payroll for each active member needed to fund PV of member's projected benefits at retirement
  - Normal Cost = NC% times current pay
- Model practice and consistent with version endorsed by GASB Statements 67/68
- Normal cost is not just the value of benefit earned

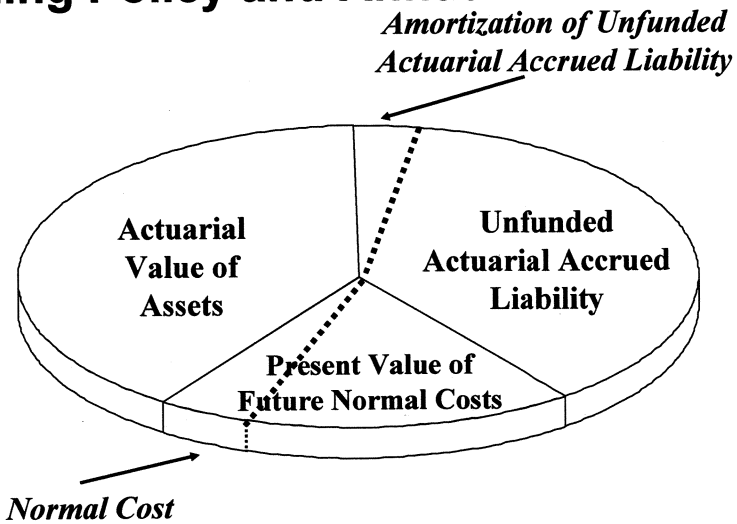
Normal Cost vs Earned Benefit



Managing Contribution Volatility

- Asset allocation – volatility at the source
- Asset smoothing
  - Specific to investment return volatility
- Direct contribution rate smoothing
  - Contribution collar – limits increases or decreases
  - Contribution rate phase-in – delays full impact
- UAAL amortization – assets and liabilities
  - More than just asset volatility control

Funding Policy and Annual Cost



Asset Smoothing Methods

- Objectives
  - Reflect market value of assets
  - Smooth out fluctuations in market values
  - Produce smoother pattern of contributions
- Features
  - Practical to both understand and model
  - Consistently lead or lag market
  - Treatment of realized vs. unrealized gains
  - Consistency with other investment policies
  - "Return to Market" conditions
- Smoothing methods and periods
  - Including "Market Value Corridor"

Income Smoothing Methods

- Contributions and benefits recognized immediately
- Split income into Immediate and Deferred portions
  - Deferred portion gets "smoothed"
- Smooth over n years, n = 3, 4 or 5 … or 10 or 15!
- Decide what part of earnings gets smoothed
  - Unrealized gains/losses
  - All capital gains/losses
  - **Total return above or below assumed earnings**

Example: one good year*

Year	1	2	3	4	5	6	7
MVA return	13%	8%	8%	8%	8%	8%	8%
Deferred	(5%)						
Recognized	1%	1%	1%	1%	1%		
AVA return	9%	9%	9%	9%	9%	8%	8%

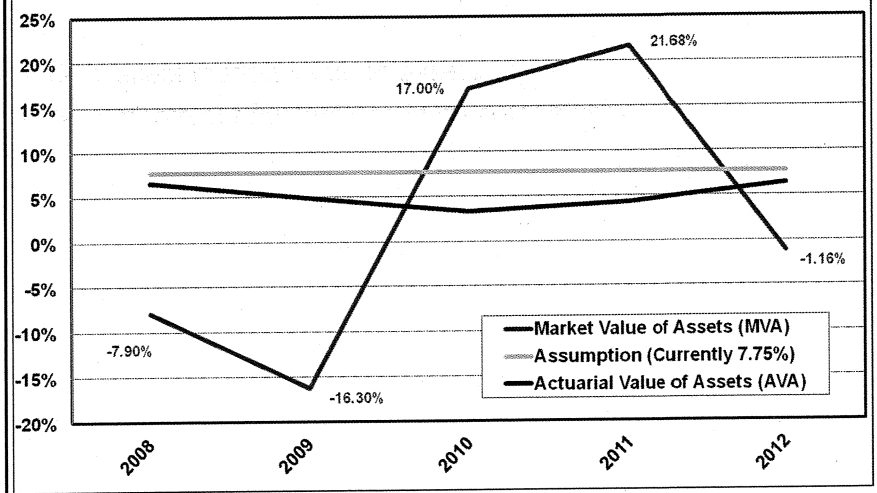
* Using 8% as assumed return.

Example: one good, then one bad year*

Year	1	2	3	4	5	6	7
MVA return	13%	3%	8%	8%	8%	8%	8%
Deferred	(5%)	5%					
Recognized	1%	1%	1%	1%	1%		
		(1%)	(1%)	(1%)	(1%)	(1%)	
AVA return	9%	8%	8%	8%	8%	7%	8%

* Using 8% as assumed return.

MCERA Investment Rates of Return



Notes: (1) The Board adopted a 7.75% assumption effective with the June 30, 2011 valuation. Prior to that, the assumption was 8.00%. (2) The rates of return prior to 2011 were determined by the prior actuary.

Asset Smoothing Mechanics

- When MVA return is **greater** than assumed
  - Smoothing "defers gains"
  - Smoothed value (AVA) is **less** than MVA
  - UAAL and contributions are **larger**
- When MVA return is **less** than assumed
  - Smoothing "defers losses"
  - Smoothed value (AVA) is **greater** than MVA
  - UAAL and contributions are **smaller**

SEGAL | MCERA – Actuarial Funding Policy

MCERA Actuarial Value of Assets as of June 30, 2008

6/30/2008 Valuation ($ thousands)

Year-end	Market Value Gain/(Loss)	Percent Not Recognized	Amount Not Recognized
Jun-08	($56,142)	80%	($44,914)
Jun-07	$26,673	60%	$16,004
Jun-06	$8,757	40%	$3,503
Jun-05	$4,340	20%	$868
Net total LOSSES not yet recognized			($24,539)
Net market value of assets			$332,208
LESS LOSSES not yet recognized			$24,539
Actuarial value of assets (incl. non-val reserves)			$356,747
AVA/MVA Ratio			107.4%

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MCERA Actuarial Value of Assets as of June 30, 2009

6/30/2009 Valuation ($ thousands)

Year-end	Market Value Gain/(Loss)	Percent Not Recognized	Amount Not Recognized
Jun-09	($79,790)	80%	($63,832)
Jun-08	($56,142)	60%	($33,685)
Jun-07	$26,673	40%	$10,669
Jun-06	$8,757	20%	$1,751
Net total LOSSES not yet recognized			($85,097)
Net market value of assets			$271,188
LESS LOSSES not yet recognized			$85,097
Actuarial value of assets (incl. non-val reserves)			
Before applying 125% MVA corridor			$356,285
After applying 125% MVA corridor			$338,985
AVA/MVA Ratio (before applying 125% MVA ratio)			131.4%

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MCERA Actuarial Value of Assets as of June 30, 2010

6/30/2010 Valuation ($ thousands)

Year-end	Market Value Gain/(Loss)	Percent Not Recognized	Amount Not Recognized
Jun-10	$23,164	80%	$18,531
Jun-09	($79,790)	60%	($47,874)
Jun-08	($56,142)	40%	($22,457)
Jun-07	$26,673	20%	$5,335
Net total LOSSES not yet recognized			($46,465)
Net market value of assets			$299,741
LESS LOSSES not yet recognized			$46,465
Actuarial value of assets (incl. non-val reserves)			$346,206
AVA/MVA Ratio			115.5%

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MCERA Actuarial Value of Assets as of June 30, 2011

6/30/2011 Valuation ($ thousands)

Year-end	Market Value Gain/(Loss)	Percent Not Recognized	Amount Not Recognized
Jun-11	$40,435	80%	$32,348
Jun-10	$23,164	60%	$13,898
Jun-09	($79,790)	40%	($31,916)
Jun-08	($56,142)	20%	($11,228)
Net total GAINS not yet recognized			$3,102
Net market value of assets			$355,043
LESS GAINS not yet recognized			($3,102)
Actuarial value of assets (incl. non-val reserves)			$351,941
AVA/MVA Ratio			99.1%

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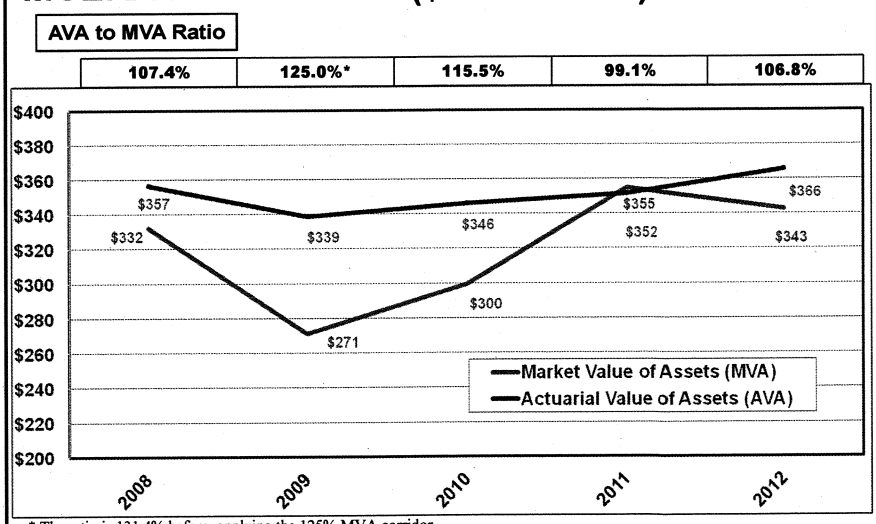
MCERA Actuarial Value of Assets as of June 30, 2012

6/30/2012 Valuation ($ thousands)

Year-end	Market Value Gain/(Loss)	Percent Not Recognized	Amount Not Recognized
Jun-12	($31,275)	80%	($25,020)
Jun-11 & Prior Combined	$2,451	75%	$1,838

Net total LOSSES not yet recognized	($23,182)
Net market value of assets	$342,737
LESS LOSSES not yet recognized	$23,182
Actuarial value of assets (incl. non-val reserves)	$365,919
AVA/MVA Ratio	106.8%

MCERA AVA vs. MVA ($ in millions)



* The ratio is 131.4% before applying the 125% MVA corridor.

Note: The figures prior to 2011 were determined by the prior actuary.

Asset Smoothing and "MVA Corridor"

- Many plans limit how far the AVA can get from the MVA by limiting the AVA ratio
- A "25% MVA corridor" means the AVA must be between 75% and 125% of MVA
  - Maximum deferred gain or loss is 25% of MVA
  - Hitting the MVA corridor effectively stops smoothing
- In 2009, some Boards decided to widen the MVA corridor
  - MCERA: Widened from 20% to 25%
  - Others decided to continue to use no MVA corridors

Actuarial Standards of Practice No. 44

- ASOP 44 focuses on two key features
  - How close does AVA stay to MVA
    - Ratio of AVA to MVA ("AVA Ratio")
  - How long before AVA returns to MVA
    - Smoothing period
- ASOP 44 also provides some structure
  - If "likely" to be "reasonable", both are required
  - If "sufficiently close" or "sufficiently short" then only one or the other is required

5-year Smoothing and MVA Corridor

- Under ASOP 44, 5 years is "sufficiently short"
  - Widespread use, industry opinions
  - Assumes employer ability to pay
- Other reasons to consider MVA corridor
  - Accelerates contribution increases
    - Market timing – more contributions in down market
    - Cash flow – avoid selling assets to pay benefits
    - Solvency – if contributions ever stop, increased plan assets could secure more benefits (extreme case)
- Recommend no change to asset smoothing method

QUESTIONS

Amortization Policy

- Component of Annual Contribution
  - Normal cost plus amortization of unfunded liability
- Sources of Unfunded Liability
  - Plan changes
  - Assumption or method changes
  - Gains / losses
- Amortization policy includes:
  - Structure: Single UAAL or in layers
    - Also: fixed (closed) or rolling (open) amortization
  - Payment pattern: level dollar or level percent of pay
  - Periods: how long to fund the UAAL

Amortization Structure

- UAAL amortized as a single layer
- Model approach: multiple amortization layers
  - First layer: current UAAL (as of policy adoption)
  - Each year, new layer of UAAL for gain/loss, assumption/method changes, plan amendments
  - Can use different periods for different sources of UAAL
- Key issue: current UAAL as of July 1, 2012
  - Current schedule: 27 years as of June 30, 2012
  - Could continue current declining amortization period
  - Or adopt a shorter period – with immediate cost impact

Illustration of Amortization Methods

7.75% interest 4.00% salary incr.	30 years Flat dollar	30 years % of pay	25 years % of pay	20 years % of pay	15 years % of pay
Increase in AAL	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Amortization factor	11.5286	17.4526	15.6672	13.5359	10.9916
(first year)	0.086741	0.057298	0.063827	0.073878	0.090979
Amortization amount					
Year 1	$ 86,741	$ 57,298	$ 63,827	$ 73,878	$ 90,979
Year 15	$ 86,741	$ 99,222	$ 110,529	$ 127,932	$ 157,546
Year 20	$ 86,741	$ 120,718	$ 134,475	$ 155,649	$ 0
Year 30	$ 86,741	$ 178,692	$ 0	$ 0	$ 0
Total amount paid					
Principal	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000
Interest	1,602,221	2,213,555	1,658,153	1,199,933	821,719
Total	$ 2,602,221	$ 3,213,555	$ 2,658,153	$ 2,199,933	$ 1,821,719

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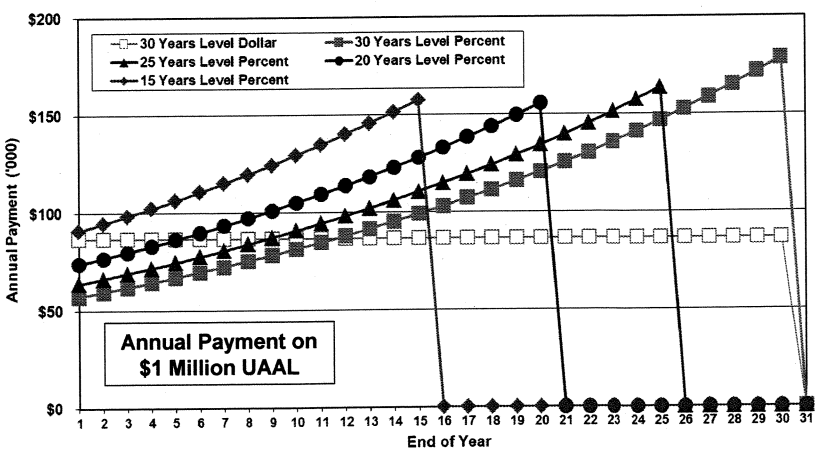
Illustration of Amortization Periods – Annual Payment ($ in 000s)



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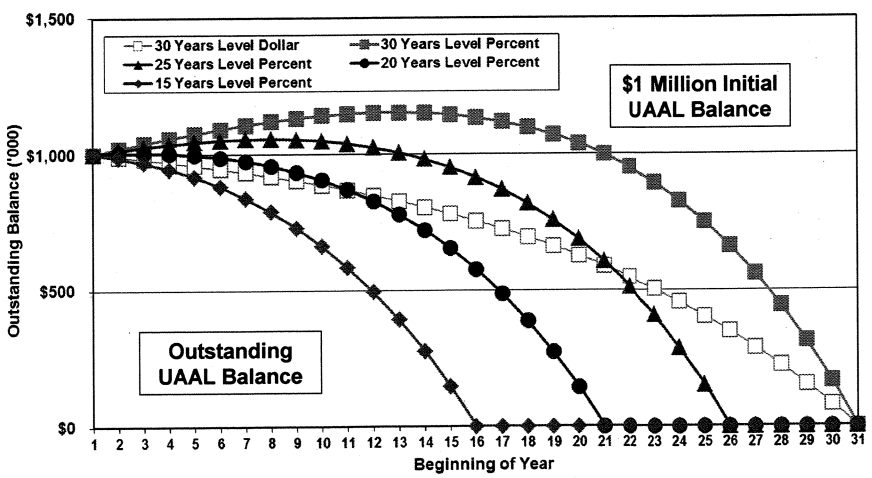
Negative Amortization

- $1,000,000 liability, 7.75% interest
- First year interest only is $77,500
- With level dollar payments, payments are always greater than interest
- With level percentage payments, early payments can be less than interest
  - UAAL increases (but not as a percentage of payroll!)
  - Eventually larger payments cover interest plus increased UAAL

Illustration of Amortization Periods – Outstanding UAAL Balance ($ in 000s)



Model Fixed Layer Periods

- Tradeoff between demographic matching and volatility management
  - Two aspects of "interperiod equity"
  - Constraint: consideration of negative amortization
  - Exception: volatility generally N/A for plan changes
- Under 15 years: too volatile
- Over 20 (25?) years: too much neg. amortization
  - 25 is the new 30: "out of bounds marker"
  - 30 years reserved for surplus
    - Normal Cost requires UAAL/surplus "asymmetry"

Model Amortization Periods

- Gains and losses: 15 to 20 years
  - Volatility management, but avoid too long a period
- Assumption and method changes: 20 to 25 years
  - Long term remeasurements, so could justify longer amortization
- Plan amendments: demographic (15 yrs. or less)
  - Avoid any negative amortization since changes are within control of plan sponsor
  - Demographic matching for actives or inactives
  - Much shorter for Early Retirement Incentives (< 5 yrs)

Contributions when Plan has surplus

- Usual contribution is NC plus UAAL amortization
- Surplus: contribute NC minus Surplus amortization
- Short surplus amortization periods means contribution holidays, even with modest surplus
  - See late 1990s for real life examples
- Recommended approach: minimum contribution
  - 30 year amortization of surplus
- CalPEPRA further limits amortization of surplus
  - Funded ratio has to be > 120%

Alternative Periods for Future UAALs

- Applies only to future changes in UAAL
  - No immediate impact to contribution rates
    - Any changes would be implemented in 6/30/2013 valuation and would apply to any new changes in UAAL after 7/1/2012

Source	Current*	Alt #1	Alt #2	Alt #3
Actuarial Gains or Losses	27	15	20	20
Assumptions or Method Changes	27	20	20	25
Plan Amendments	27	15	15	15
ERIPs	27	5	5	5
Actuarial Surplus	27	30	30	30

* 27 years used in June 30, 2012 valuation

Alternative Periods for Current UAAL

- Board may consider shorter amortization period for current UAAL
- Most clear and direct actuarial policy action to accelerate plan's progression to 100% funding
- Impact of shorter amortization for current UAAL
  - Any change would not be implemented until 6/30/13 valuation
  - Re-amortize UAAL as of 7/1/12

Alternative Periods for Current UAAL

- Impact of shorter amortization for current UAAL on employer rate:

	Change in ER Rate (% of Pay)			
	15 Yrs	18 Yrs	20 Yrs	25 Yrs
Based on 6/30/12 Valuation	6.49%	4.02%	2.80%	0.63%

Adjustment for 12-Month Delay in Rate Implementation

- One-year delay in implementing contribution rates
  - Example: employer rates developed in 6/30/2012 valuation applied in 2013/2014 fiscal year
  - Short term impact:
    - Actuarial loss (when contribution rates increase)
    - Actuarial gain (when contribution rates decrease)
  - Long term impact: relatively small as losses are expected to offset gains
- Possible to anticipate even short term loss or gain and build into contribution rate
  - Not common among 1937 Act systems

Funding Policy Recommendations

- EAN Cost method
  - No changes recommended
- Asset smoothing method
  - No changes recommended
- UAAL amortization policy
  - For UAALs established after 6/30/2012
    - Consider one of the alternative sets of amortization periods
  - For UAAL established prior to 7/1/2012
    - No change recommended unless the Board wishes to accelerate plan's progress to 100% funding

Other MCERA Funding Policy Elements

- Elements of funding policy dated July 19, 2006
  - Minimum contribution rate:
    - Compares AVA with "Accrued Benefit Obligation" (ABO). Eliminates shortfall in 3 years
    - Compares AVA with 75% of "Pension Benefit Obligation (PBO)". Eliminates shortfall in 5 years
  - Maximum contribution rate:
    - Compares AVA with 125% of PBO. Eliminates surplus in 5 years.
  - ABO and PBO are NOT calculated using EAN method
    - No actuarial justifications for these calculations

Other MCERA Funding Policy Elements

- Elements of funding policy dated July 19, 2006
  - Contribution rate phase-in – delays full employer rate impact from change in assumptions
    - Less than 0.25% of payroll: No phase-in
    - Between 0.25% and 0.50%: Over 2 years
    - More than 0.50%: Over 3 years
  - Not referenced by prior actuary when assumptions were changed in 6/30/2008 and 6/30/2010 valuations
  - Consider MCERA funding status and other factors
    - Not recommending phase-in as an automatic feature of actuarial funding policy

QUESTIONS