

# Background Information for Developing the UCFW Position on the Executive Summary of the Presidential Task Force on Post-Employment Benefits The Unfunded Actuarial Accrued Liability and total Remuneration

September 7, 2010

## Introduction

During the final week of August an Executive Summary of the Steering Committee of the Task Force (along with the full Report and appendices, available online at: <http://universityofcalifornia.edu/sites/ucprfuture/task-force-inf/> ) was released, accompanied by a Dissenting Statement authored by Senate members and staff representatives of the Task Force working groups. The Dissenting Statement was endorsed by every Task Force Working Team member from either the faculty or the staff (i.e., non-administrators); the Senate Chair and Vice Chair served on the Steering Committee and chose to try to achieve improvements in the Executive Summary, and then recommended to the President that the Dissenting Statement be distributed along with that Summary. To provide some context for evaluating the Executive summary and Dissenting Statement and forming a UCFW response to them, the following background information has been assembled for those who are relatively new to the issues surrounding UCRP and the PEB process. The topics covered are: Unfunded Actuarial Accrued Liability (UAAL); Total Remuneration; Proposed New Tiers for the Pension Plan.

### **1. The Unfunded Actuarial Accrued Liability:**

UCRP is a Defined-Benefit Plan which means that each member of the plan (faculty and staff of the University) will receive a pension upon retirement that is determined according to a formula by his or her age, salary history, and length of service. The number of years of service credit is multiplied by an *age factor* that ranges from 1.1% (for retiring at 50) to 2.5% (at 60), and the product is the percent of *HAPC*, the highest average plan compensation, that is paid as an annual pension. *HAPC* is the average of the highest three years of *covered compensation* (which excludes certain types of salary, such as summer salary, or Y and Z for members of the Health Sciences Compensation Plan).

Each year of service credit earned by the employees of the University will eventually have a cost in terms of the benefits paid out. This is called the Normal Cost of the Plan, which for current UCRP is approximately 17.5% of covered compensation. The Actuarial Accrued

Liability (AAL) is the present discounted value of the pension benefits that will be paid in the future, based on the service credit all employees have earned to date. It can be thought of as the amount of money that would need to be invested today, and earn the assumed interest rate of 7.5%, to meet those future benefit payments which have already been earned. This discount factor of 7.5% is used by UC's actuaries in making projections involving the fund. Assumptions about future growth in salaries are embedded in the calculation, since HAPC must be forecast, but pension benefits earned from service credit that is still to come are not included in the current liability.

When the Plan has enough money to pay for all the service credit which has been earned, then it is 100% funded. If the Assets are less than the AAL, then the is less than 100% funded; it has an Unfunded Actuarial Accrued Liability, UAAL.

There are two ways to calculate the value of the assets in the plan. The MVA (Market Value of Assets) uses the current market value—what would be the result of selling all of the assets today?—which can change considerably over a short time period. On a Market Value basis, as of June 30, 2009, (figures for June 2010 will not be available until the November Regents meeting) UCRP had a UAAL of \$12.9 billion.

The AVA (Actuarial Value of Assets) method averages gains and losses over five years, bringing about a smoothing of market changes. The graph below shows that the funded status of UCRP, on the AVA basis, has been steadily declining for a number of years, from being 149% funded in 2001 to below 100% funded in June 2009. This reflects the two-decade holiday from contributions to the plan for both the University and its employees. As the market losses of 2008-2009 are fully taken into account over the next few years, the funded status of the plan using the AVA will continue to decrease. For example, in 2009 the -19% rate of return was really - 26.5% short of the +7.5% target. Only 5.3% of this shortfall was taken into account when determining the AVA of the fund in 2009, and equal portions of the loss will be applied in each of the following four years.

# UCRP Historic Funded Status

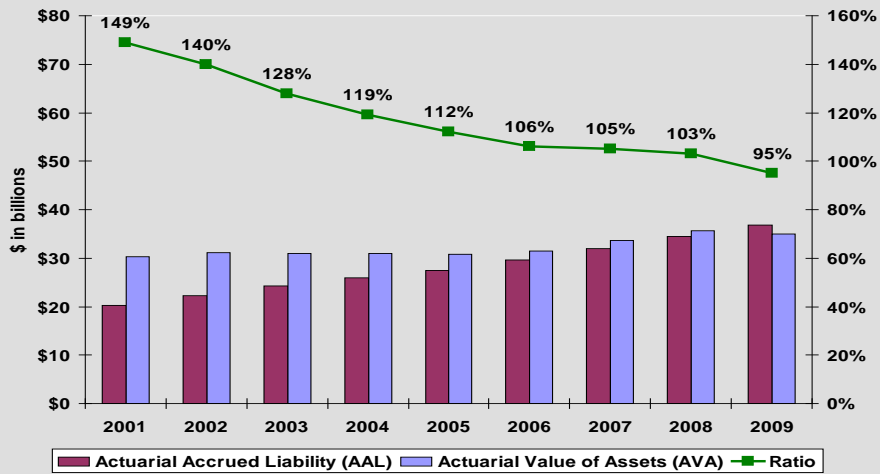


Figure 1

Note that failing to reduce the UAAL is equivalent to borrowing from UCRP at 7.5% interest. This is due to the fact that if the funds are not invested by the plan, and are instead used to finance current operations, they cannot earn 7.5%. This amount must be made up by future contributions. Thus, without additional contributions, the UAAL grows by 7.5%. Furthermore, if the full normal cost is not contributed for service credit accrued that year, the UAAL grows by this shortfall, in addition to the 7.5% interest on the existing UAAL. To provide some sense of the magnitudes involved, at the December 2009 UCFW meeting, and in several TFIR/UCFW documents, we referred to a \$2B annual shortfall, which was made up of approximately equal components of \$1B due to failure to contribute the full normal cost (17.5%-6%=11.5% of covered compensation) and another \$1B in interest on the existing unfunded liability.

It is sometimes asked whether a positive change in the markets would ameliorate the UAAL. For example, what if the rate of return is 10% rather than 7.5% for the next 5 years? The following Table illustrates a simplified calculation of the effect of a 10% increase in the Market Value on the unfunded liability of a fund like UCRP in one year. The first column shows the assets; total liability (promised benefits for all earned service credit, AAL); the difference between these two numbers, the unfunded liability (UAAL) and the percentage of the liability that is funded. The second column shows these values at the end of the second year based on

a 10% gain in Market Value of the fund. During this year, \$1.5B has been paid in benefits so this value is subtracted from both the assets and the liability. The total liability has grown by the 7.5% discount factor previously described and by any portion of the normal cost (17.5% for UCRP) that has not been contributed for the service credit earned during this year..

Table1. Effect of Market Change on Funded Status

	Year 1	10% gain in Market Value <sup>e</sup> →	Year 2
Total Assets	35 <sup>a</sup>		37.0 (38.5 - 1.5) <sup>b</sup>
AAL	48		51.5 [(48 x 1.075) <sup>c</sup> + (8 x 0.175) <sup>d</sup> - (1.5) <sup>b</sup> ]
UAAL	13		14.5
% Funded	72.9%		71.9%

<sup>a</sup> All numbers are in billions of dollars unless indicated otherwise

<sup>b</sup> Assumes \$1.5 billion paid in benefits and subtracted from AAL

<sup>c</sup> The entire liability grows by 7.5% each year

<sup>d</sup> Assumes no normal cost (17.5% of \$8 billion covered compensation) paid for year 2. If 10% of normal cost was paid, Funding=73.0% rather than 71.9%.

<sup>e</sup> 10% increase in the Market Value of the fund is not the same as a 10% increase in the stock market (e.g. the DJIA), since the portfolio contains investments with lower risk and lower expected return than stocks, as well as some with more risk and a higher expected return than the DJIA.

The Table shows that even this robust market scenario, which does not take into account losses from previous years, does not have a large effect on the UAAL. It is highly unlikely that this market performance would be sustained long enough to erase the UAAL. What if the market achieved an even greater return? Even a 20% annual return—a threshold experienced only 4 times by UCRP since 1989, and not once since the dot-com boom—would change the calculations only marginally; the \$37B in assets would be \$40.5B, leading to a \$11B gap instead of \$14.5B. The only way to address the problem of the UAAL is to begin to amortize it, to prevent it from growing by 7.5% per year, and to pay the normal cost of each year's earned service credit going forward.

The Annual Required Contribution (ARC) consists of normal cost plus contributions sufficient to amortize the unfunded liability over a 15-year period. Any surplus would be amortized over a 30-year period, reducing contributions by that amount. One proposal from the PEB Task Force is to increase the amortization period for deficits to 30 years. This reduces

ARC annually, but increases the total amount necessary to fund the shortfall, exactly like the choice between a 15- or 30-year mortgage.

To summarize, for 20 years, funds that should have been contributed to the retirement plan were deployed for other purposes in the University; the State of California received the benefits of a vibrant growing university without spending a penny in supporting UCRP. The Plan's UAAL reflects neither faulty investment strategy nor an overly generous pension benefit. It is also important to note that changing the benefit formula or the amount of the employee contribution for new hires or even for future service credit earned by existing employees will not decrease the current UAAL. This is the amount already owed for service credit which has been earned and it cannot legally be changed.

It must also be recalled that as detailed in the March, 2010 TFIR recommendation to ensure Adequate Funding for UCRP "...less than one-third of UC salaries are paid by state funds with federal grants and contracts and self-supporting agencies, such as the clinical enterprises making up the other two-thirds.....Therefore each dollar of contributions on behalf of state-funded employees that is deferred results in the loss of an additional *two dollars* of contributions from *non-state* sources." Thus deferral of the resumption of contributions means that some needed contributions will never be captured and will have to be made up from other sources, such as the University's operating budget.

The Academic Senate has been urging the resumption of contributions to UCRP since 2005 and finally small steps are being taken towards this goal. But much larger steps are required; these steps and their implementation have been the topic of a great deal of discussion in TFIR, UCFW, the Academic Council and, more recently the President's Task Force on Post-Employment Benefits.

## **2. Total Compensation Analysis (Total Remuneration)**

Since 2007, UC has worked with Hewitt Associates, LLC, and Mercer, LLC---two national consulting firms---to gauge the competitiveness of total remuneration at UC. Total remuneration consists of three main components: cash compensation, current (active) health and welfare benefits (e.g., dental care, vision care, and health insurance plans), and retirement benefits (pensions and retiree health coverage). Faculty from UCFW and its two task forces, the Health Care Task Force (HCTF) and the Task Force on Investment and Retirement (TFIR), were part of a series of meetings with the consultants and the systemwide office of Human Resources and Benefits (HR&B) to understand the methodology and to make recommendations

about the study of UC's competitiveness. This work culminated the October, 2009, Total Remuneration Study which is posted on UCOP's web site and can be viewed online at <http://www.universityofcalifornia.edu/news/compensation/comparisons.html>.

Briefly, the study calculates the value to active employees of each benefit. The sum of these values and cash compensation gives total remuneration. For instance, if the average salary for a particular group of employees is \$75,000, the average value of current benefits is \$8,000, and the average value of retirement benefits earned in the current year is \$7,000, then the average total remuneration for that employee group would be \$90,000. The total remuneration, the individual components of total remuneration, and the aggregate values for each category are compared, on a percentage basis, with comparable values at "comparison institutions". For instance, for faculty, the comparators, consisting of four public and four private institutions, are called the Comparison 8. Page 35 of the Study shows that, assuming a 5% employee contribution to UCRP, ladder rank faculty salaries are 10% behind comparators and total remuneration lags by 6%.<sup>1</sup>

Along with providing a snapshot depicting UC's competitiveness at any one time, the total remuneration methodology has been used to study the effects of proposed changes in benefits designs. It is unrealistic to assume that a change in retirement benefits, and thereby incentives to retire, will not change behavior. For the Total Remuneration Study, anticipated retirement dates are included in the calculation of the value of retirement benefits, since it is necessary to anticipate the number of years spent in retirement to determine the value of a particular pension benefit. It is therefore necessary to account for likely changes in the pattern of retirements, following changes in benefits. Members of the PEB Task Force from the Academic Senate worked with the consultants and HR&B to develop plausible behavioral responses, and these are reflected in the valuations of new benefits designs. While the study does not predict retirement age, mortality, etc., perfectly, it averages over the possible outcomes, weighted by probabilities. In other words, these are *expected* value calculations.

A final point concerns the topic of risk adjustment. Some members of the PEB Steering Committee have asserted that the valuation of UCRP, or any defined-benefit plan, in the total remuneration study is biased because it fails to include the value to the employee of the fact that the investment risk in a defined-benefit plan is shifted to the institution, and they assert

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<sup>1</sup> Note that the retirement benefit is what an active employee is earning, as a future pension, due to that year's service. It is not the value of the retirement benefit we are paying current retirees

there is no compensation to UC for bearing that risk. The Senate members of the Task Force Work Teams disagree with this premise. First of all, while individuals do face market-timing and longevity risks, the University averages these over all employees, so the importance of these two risks for the University is overstated. Second, according to the Experience Study prepared by The Regents' consulting actuary, The Segal Company, the University obtains compensation for bearing risk built into the plan. The plan's expected returns are 9.25%, not 7.5%, reflecting a 1.75% premium to the University. In addition, Segal allows for a higher rate of growth of salaries (and hence, larger pension payments) than is used in the total remuneration study. To the extent that Segal overstates salary growth, it overstates the normal cost of the plan.<sup>2</sup>

Finally, as UCOP states, the total remuneration study was conducted "follow[ing] standard industry practices". Those industry practices have not included an attempt to attribute a value to a defined benefit plan from shifting investment risk to an employer, nor did any of the three bids for conducting the total remuneration study indicate the availability of any methodology to assess the value of the shift of investment risk. Thus, the premise of adjusting DB plan values to recognize that UC may be bearing greater risk is fundamentally flawed.

It is important to note that the University has already been compensated for allegedly bearing the risk in at least one other important way: it took advantage of temporary market conditions to withhold retirement plan contributions for twenty years. As should now be clear, the use of money that should have gone into funding UCRP for other purposes represents massive over-compensation to the University.

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<sup>2</sup> Finally, in a paper prepared by Professors Anderson, Chalfant, and Henry, as part of the PEB discussions, it was demonstrated that there are significant additional problems with the notion that risk adjustments for the value of UCRP should increase the value of the plan to employees. If anything, the risk adjustment should operate in the opposite direction. All of these points are covered in that document in far more detail. This paper, in its entirety, appears along side the proposal for risk adjustment prepared by Peter Taylor, Frank Yeary, and Maria Anguiano, in the full report of the PEB Task Force. See Full Report Appendix S, beginning document page 212 (pdf page 106): [http://universityofcalifornia.edu/sites/ucrpfuture/files/2010/08/peb\\_report-appendices\\_083010.pdf](http://universityofcalifornia.edu/sites/ucrpfuture/files/2010/08/peb_report-appendices_083010.pdf) .