Pension Reform
In
Public Higher Education

James A. Hyatt
Associate Director
and
Principal Investigator
Center for Studies in Higher Education
University of California, Berkeley

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I. Overview:

The Challenge of Pension Reform in Higher Education:

In recent years as a result of severe economic conditions, a number of colleges and universities and state and local governments have significantly altered the manner in which their employee retirement programs are structured and funded. Changes have included moving from defined benefit to defined contribution or to hybrid programs and/or increasing employee or employer contributions. Benefits have been reduced or retiree contributions to these programs have been increased. In some states and institutions employee retirement programs have been chronically underfunded and this underfunding has resulted in significant future financial liabilities.

Changes in retirement programs have had an impact at both the governmental and institutional level. Increased costs of these programs have resulted in budget tradeoffs between operational priorities and employee retirement programs. In some cases employees are choosing to retire early to avoid reduced benefits or increasing employee contributions. Other employees have chosen to delay their retirement dates because of reduced benefits. Early retirement options have increased the financial burden on existing programs and have resulted in the loss of experienced faculty and staff and increased faculty and staff, while increasing faculty and staff recruitment and retention costs.

The Higher Education Pension Reform (HEPR) Project:

To address these issues The Center for the Study of Higher Education at the University of California, Berkeley, with support from Fidelity Investments and other sponsors, initiated a project on pension reform in public higher education. The objective of this project was to identify and document major changes to retirement and postretirement benefit programs at colleges and universities. Included in this review was the manner in which these programs were funded and the benefits provided. The project examined the processes used by institutions to restructure these programs including involvement of faculty and staff. The project also identified innovative approaches to restructuring retirement and post benefit programs.

The research methodology used to achieve the project's objectives consisted of three major components.

- The identification of major issues facing public higher education retirement programs.
- A series of surveys on how institutional, governmental and other providers of retirement and postretirement benefit programs have restructured their programs to meet rising costs and decreased revenues.
- Best practices in pension reform highlighted through case studies of retirement programs at public universities and university systems.

The higher education professional organizations participating in the study included:

- The Association of Governing Boards (AGB);
- The National Association of College and University Business Officers (NACUBO);
- The National Association of System Heads (NASH);
- The National Association of State Budget Officers (NASBO);
- The College and University Professional Association for Human Resources (CUPA-HR);
- The Council for Higher Education Accreditation (CHEA); and
- The National Association of College and University Attorneys (NCURA).

During the data collection and site visit phases of the project the various decision and communication processes related to pension reform were examined. The project also examined the processes used by institutions and states to restructure their pension and post retirement programs.

The case study phase of the project examined innovative approaches to restructuring retirement and postretirement benefit programs at both the state and institutional level.

II. Recent Developments in Pension Reform and their impact on Higher Education:

Higher Education Retirement Programs:

Traditionally Higher education has employed a variety of pension and postretirement benefit programs. The most common programs include defined benefit and defined contribution programs.

A defined benefit retirement plan is established and maintained by an employer. The plan uses a predetermined formula to calculate the amount of an employee's retirement benefit. Formulas usually take into consideration an employee's compensation and years of service. Employer contributions to DB plans are determined actuarially. No individual accounts are maintained (defined contribution plans are individual accounts). Under federal law, any plan that is not an individual account plan is a defined benefit pension plan. (Source: Pennsylvania State Education Association, January 2013)

As defined [by federal law], a defined contribution plan is a plan that provides an individual retirement account for each participant with benefits based solely on (1) the amount contributed to the participant's account plus (2) any income, expenses, gains, losses and forfeitures from other participants. The employee or the employer may make contributions to an account. Defined contribution plans include 401(k), 403(b) and 457 plans. Employees bear the risk of investment losses or gains from

investment performance. (Source: Pennsylvania State Education Association Glossary of Pension Terms: January 2013)

Another form of retirement plan involves the use of annuities. An annuity is a form of insurance contract that provides a stream of periodic payments, typical for life. Annuities are available in a variety of forms. (Source: Virginia Retirement System)

In addition to employer sponsored plans individual employees may be able contribute to a variety of defined contribution plans including: 403b and 457 plans. An overview of pension programs in higher education is outlined in the following graphic from the 2012 Comprehensive Survey of Colleges and University Benefit programs (College and University Professional Association for Human Resources)

Retirement Plans by the Numbers

The following data are taken from the *2012 Comprehensive Survey of College and University Benefits Programs* (College and University Professional Association for Human Resources, 2012). For more higher education salary and benefits survey information, go to www.cupahr.org/surveys.

FIGURE 1 Percent of Responding Institutions Offering Each Type of Retirement Plan to New Employees

	All	Public	Private
Defined benefit plan			
Traditional plan	47%	89%	20%
Cash balance plan	5%	8%	3%
Defined contribution plans			
403(b) plan	96%	98%	95%
457(b) plan	59%	87%	42%
401(a) plan	27%	61%	6%
401(k) plan	11%	23%	5%

FIGURE 2 Percent of Responding Institutions Requiring an Employee Contribution

403(b) Defined Contribution Plans	
% indicating employee contribution to 403(b) plan mandatory	21%
If mandatory, % of salary required (median)	5%
401(a) Defined Contribution Plans	
% indicating employee contribution to 401(a) plan mandatory	57%
If mandatory, % of salary required (median)	6%

Funding Sources for Higher Education Pensions

Pensions and other post-retirement benefits are funded from a variety of sources. About $ 6 of every $ 10 in pension funds comes from earnings on investments with the remainder coming from employer or employee contributions. Prior to 2009 most plans assumed a gain of 8% (Source: Issue Brief: "Public Pension Plan Investment Returns" National Association of State Retirement Administrators, October 2011). Following the Great Recession of 2008-2009 many plans have moved this assumption to a range of 7-7.25%.

The sources of funding for these programs are outlined below and grouped by type of higher education institution.

Private Non Profit Institutions

Defined Contribution Systems: A significant number of private nonprofit colleges and universities offer defined contribution retirement plans to which the employer and in some cases the employee can contribute on a voluntary basis. The value of the plan is dependent on the return of invested funds. There is no guaranteed benefit associated with these types of plans. The fiscal liabilities and/or assets associated with these plans must also be disclosed in the institutions financial statements.

Private nonprofit colleges and universities are also subject to the Employee Retirement Income Security Act of 1974 (ERISA). ERISA is a federal law that sets minimum standards for most voluntarily established pension and health plans in private industry to provide protection for individuals in these plans. ERISA requires plans to provide participants with plan information including important information about plan features and funding; provides fiduciary responsibilities for those who manage and control plan assets; requires plans to establish a grievance and appeals process for participants to get benefits from their plans; and gives participants the right to sue for benefits and breaches of fiduciary duty.(Source: United States Department of Labor)

Defined Benefit Systems: A limited number of private nonprofit colleges and universities offer a defined benefit program. As noted above these types of plans are established and maintained by an employer and use a predetermined formula to calculate the amount of an employee's retirement benefit.

Funding for these plans usually involve an employer contribution and can also involve an employee contribution. The Assumed Rate of Return determines the amount of the contribution or the rate pension plan administrators feel its investments are likely to earn on average in future years. A majority of a pension plan's funding typically comes from earnings on investments. An investment assumption is therefore necessary for the actuary to calculate the amount of money

that needs to be put aside that combined with earnings will be sufficient to pay future retirement benefits.

Public Sector Institutions:

1. Institutions or University Systems that are part of State Retirement System:

In a number of states such as Arizona, California and Virginia public higher education institutions are part of the state retirement system. Along with other state agencies they contribute the employers share to the plan and employees contribute an employee share. The employer and employee share are determined by the state retirement agency usual on the basis of the Annual Required Contribution (ARC) or the employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. (Source Rhode Island Retirement System) The graphic below highlights the California State University's participation in the state of California' Public Employee Retirement System. (Source; CSU)

Eligible CSU Employee Group	Benefit Formula	Benefit Formula	Employee Contribution	Employer Contribution
Benefit Plan: Miscellaneous Tier 1				
MPP Executive (E99) (R03) Academic Professionals (R04) Trades (R10) (R11)	2%@55 if hired prior to 1/15/11.	2%@60 if hired on or after 1/15/11 as a new state employee.	5% of monthly salary, less an exclusion allowance of $513.00 for coordination of Social Security.	Set annually by CalPERS
Benefit Plan: Peace Officer/Firefighter (POFF)				
CalPERS POFF Public Safety (R08)	3%@50 if hired prior to 7/1/11	2.5%@55 if hired on or after 7/1/11 as a new state employee.	$0.00 8% of monthly salary is currently paid by CSU.	Set annually by CalPERS
CalPERS POFF Non-Unit 8 Public Safety Management (M80)	3%@50 if hired prior to 1/15/11	2.5%@55 if hired on or after 1/15/11 as a new state employee.	8% of monthly salary, less an exclusion allowance of $238.00.	
CalPERS State Safety Employees	3%@55 if hired prior to 1/15/11	2.5%@55 if hired on or after 1/15/11 as a new state employee.	6% of monthly salary, less an exclusion allowance of $317.00	

2. Public University Systems

Defined Benefit Programs: A few university systems such as the University of California have established their own defined benefit systems. The University of California Retirement Program (UCRP) requires both an employer and employee contribution. Specifics associated with the UC plan are covered in the case study section of this report.

Other stand-alone institutions such as the University of Missouri have moved from a defined benefit to a hybrid defined benefit defined contribution program. Specifics associated with this plan are also discussed in the case study section of this report and are summarized in the following graphic (Based on University of Missouri 2012 Data):

Source: NACUBO Business Officer "Draw Them in In", Karla Hignite April 2013

Changes in Financial Reporting on Pensions and other Post Retirement Benefits in Higher Education:

Private nonprofit colleges and universities and public colleges and universities develop financial reports on the basis of two distinct reporting entities. Private universities use accounting standards developed by the Financial Accounting Standards Board (FASB) while public schools and colleges are required to use standards developed by the Governmental Accounting Standards Board (GASB) In a recent pronouncement GASB changed the standards by which public colleges and universities report on pensions.

According to the National Association of College and University Business Officers (NACUBO) GASB 68 would:

> "Align the recognition of pension expense with the period in which the related benefits are earned. Consequently, the measurement process incorporated into Statement No. 68 involves three essential steps:
>
> 1. Project future benefit payments for current and former employees and their beneficiaries.
> 2. Discount those payments to their present value.
> 3. Allocate the present value over past, present, and future periods of employee service.
>
> Overall, the changes set forth by the GASB will likely accelerate the recognition of pension expense. As a result, governmental employers will have to recognize and report a related net pension liability-the difference between the total actuarially determined pension benefit liability and plan assets that are available to pay the calculated benefits.

For purposes of Statement No. 68, employers fall into one of three categories:

- **Cost-sharing employers** provide their employees with defined benefit pensions through cost-sharing, multiple-employer pension plans-plans in which the plan assets can be used to pay the pensions of any participating employer's employees.

- **Single employers** provide their employees with defined benefit pensions through single-employer pension plans-plans in which pensions are provided to the employees of only one employer.

- **Agent employers** provide their employees with defined benefit pensions through agent multiple-employer pension plans-plans in which plan assets are pooled for investment purposes but are legally segregated to pay the pensions of each employer's employees.

The most significant aspect of the new standard for public higher education institutions concerns the recognition of pension expense and a net pension liability for cost-sharing employers. Hundreds of public institutions have employees who have been promised pension benefits through their state's public employee retirement systems, which are structured as multiple-employer, cost-sharing plans. Currently, cost-sharing employers are not required to present actuarial information about pensions.

The new guidance for cost-sharing employers in Statement No. 68 reflects the GASB's belief that the information needs of users regarding cost-sharing employers do not differ significantly from those interested in single and agent employers. Accordingly, cost-sharing employers are viewed collectively as having primary responsibility for the plan's unfunded pension obligations. Under the new standard, public colleges and universities that are part of their state's multiple-employer, cost-sharing pension plan will report a proportionate share of a net pension liability and pension expense"

Source: "GASB Releases New Pension Guidance": July 13, 2012; NACUBO

The reporting requirements set forth by GASB require that public universities and colleges to disclose in their financial statements the extent of their liabilities related to pension and other related benefits such as retiree health. At a minimum these

reporting requirement will provide full disclosure of the institutions liabilities. However for many public universities who are part of a state retirement system it could raise the question as to who is liable the institution or the state.

According to the Standard and Poor's Rating Services another significant change under GASB 67 and 68 is the introduction of a depletion date for a pension system. This is a projection of when system assets will be insufficient to fund benefit payments. The following examples highlight how depletion dates can lead to variations in liabilities:

New Jersey
New Jersey previously used a 7.9% assumed rate of return to discount its liabilities. Under GASB 67, the actuary identified a date and as a result, a blended rate is applied in the updated actuarial report. A 7.9% rate of return while assets are available to pay benefits and a 4.29% discount rate is applied after they reach their depletion date. Its unfunded liability more than doubled from to $82.77 billion in fiscal 2014 from $37 billion in fiscal 2013 partially reflecting this change in the discount. Although asset valuations also declined due to the asset smoothing methodology used by the state, this was a much less significant contributor to the overall increase in the liability.

Illinois
In Illinois, which also has a significantly underfunded pension system, the blended rate had a less severe impact on pension liability, reflecting progress toward funding annual contributions in recent years. The blended rate of 7.09% % and 7.5% for Illinois State Employees Retirement System and Illinois Teachers Retirement System in 2014 (assumed rate of return 7.25 and a 4.29% municipal bond rate) compared to a 7.25% assumed rate of return in 2013. The state's aggregate unfunded pension liability increased by 10% to $111 billion from $100.5 billion in2013.

Kentucky
Kentucky adopted pension reform in 2014 for the Kentucky Employees Retirement System (KERS), which was 26% funded. The reform required that the state fully fund its actuarially determined pension contribution for KERS in the 2015-2016 biennium, but fell short of implementing the same reform for the Kentucky Teachers Retirement System (KTRS). Based on the reform of KERS, it did not adopt a blended rate approach, but did adopt it for KTRS, which significantly increased the total pension liability. To put this in some context, KERS' unfunded liability increased 2% in fiscal 2014 compared to a 55% increase in liability for KTRS in 2014 relative to 2013.

(Source: Six Years into The Recovery, Pensions Are A Big Divider of U.S. State Credit, Standard & Poor's Ratings Direct, March 24, 2015)

Recent Efforts in Pension Reform:

According to a report published in 2012 by the PEW Center on States the most common efforts at the state level to reform public employee pension system included the following strategies:

- Asking Employees to Contribute a larger amount to their pension benefits;
- Increasing the age and years of service required before retiring;
- Limiting or temporarily suspending the annual cost-of living (COLA) increase;
- Changing the formula used to calculate benefits to provide a smaller pension check;
- Eliminate special provisions that can affect pension amounts, such as the practice of "spiking" final pay to get a larger pension check by including overtime pay and sick leave;

Source: The Widening Gap Update: PEW CENTER ON THE STATES; June 2012

The case studies included later in this report provide specific examples of these strategies at both the state and institutional levels.

In considering various pension reform strategies it is important to consider the impact not only on the providers of the benefits but three distinct groups of recipients;

- Retirees;
- Active Employees;
- New Employees

In most instances pension reforms have largely been directed at new employees since reducing benefit of active employees and retirees has been legally challenging. As noted later in this report some states and institutions have implemented reforms that affect all three groups of pension recipients.

Another consideration in reviewing pension reform efforts is that in some states, such as Arizona, Virginia and Florida, faculty and senior administrators have the option of participating in the state's defined benefit plan or an Optional Defined Contribution Plan (ODCP). In these state's retirement benefits of staff are tied to the structure of the state plan while benefits for faculty and senior administrators not participating in the state retirement plan are tied to the choices they make in the structure of their individual ODCP.

III. Recent Pension Reform Studies:

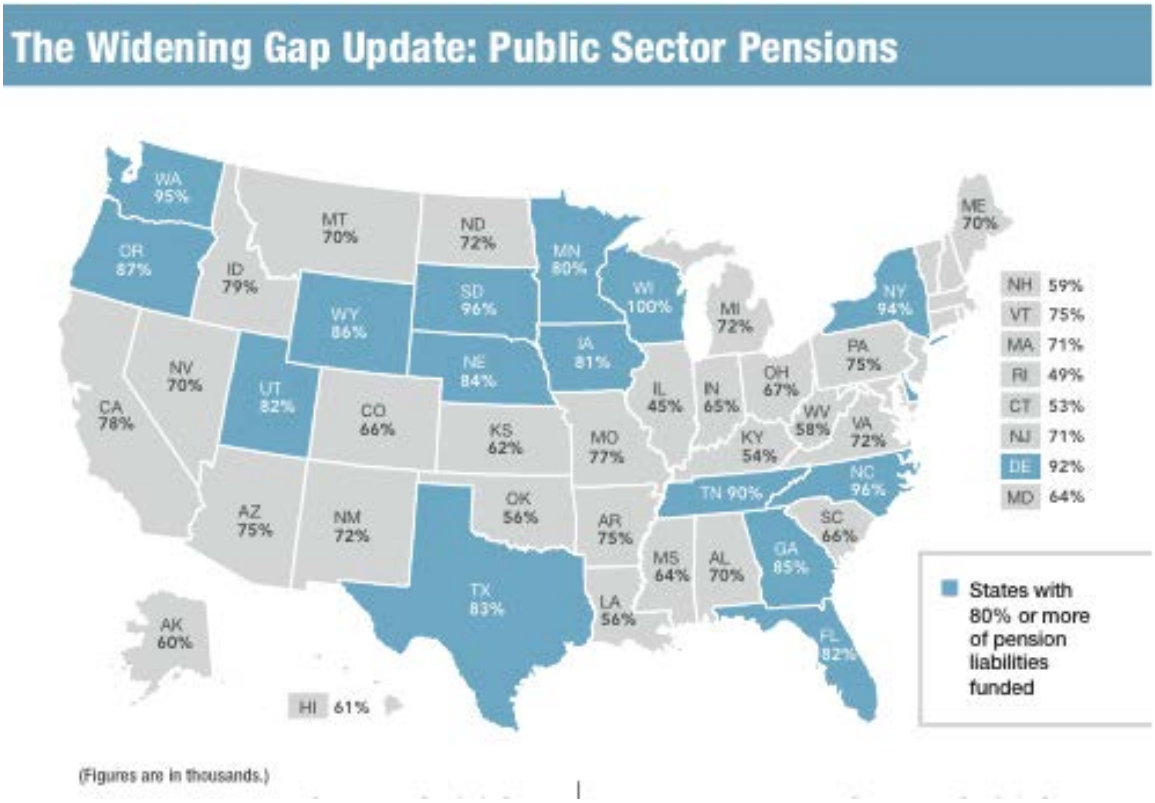
The Pew Center on States:

Over the last several years the extent of the pension liability crisis has been well documented. In part because the financial crisis of 2008 and 2009 resulted in some pension systems falling well below their desired funding levels.

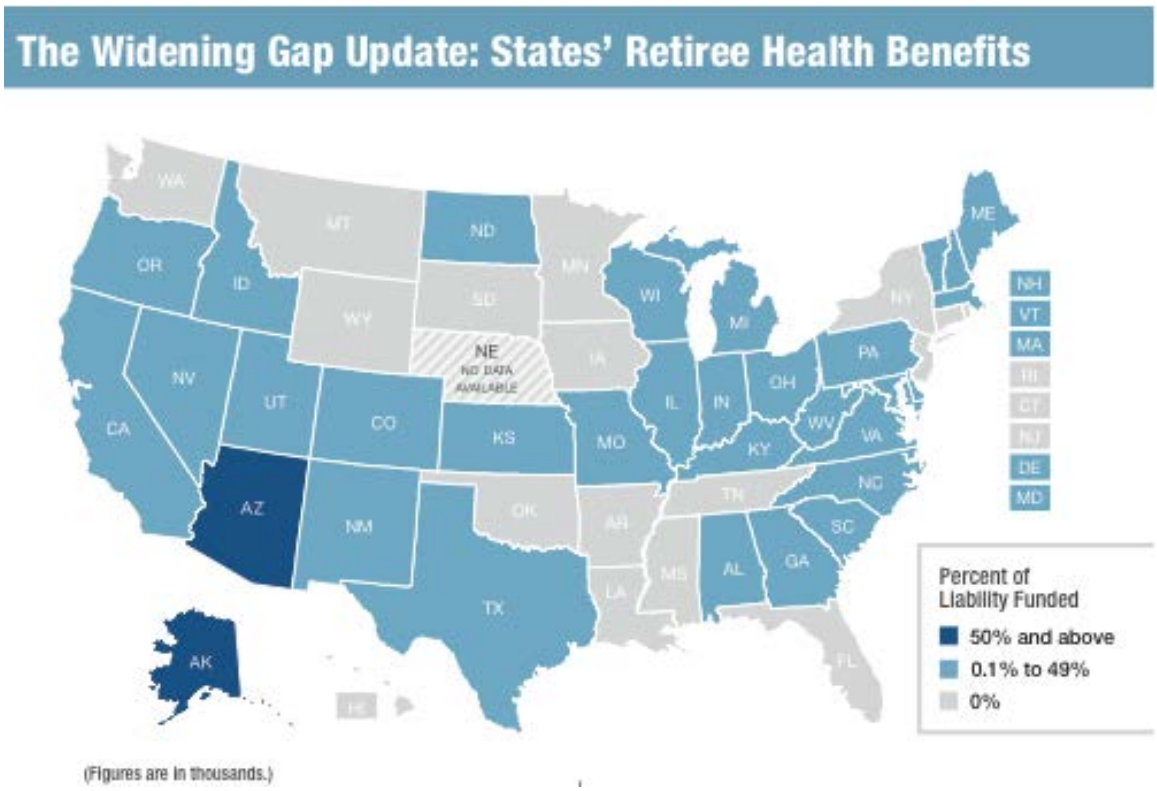
In June 2012 a study by the PEW Center on the States found that:

"in the fiscal year 2010, the gap between assets and obligations for public sector retirement benefits was $ 1.38 trillion, up nearly 9 percent from fiscal 2009. Of that figure, $ 757 billion was for pension promises, and $ 627 billion was for retiree health care"

Results varied by state with only the Wisconsin pension system being 100% fully funded. If an acceptable ratio of funding was 80% then 34 states were below the 80% threshold. The following graphics highlights the position of the various states with respect to their public sector pension systems and retiree health benefits.



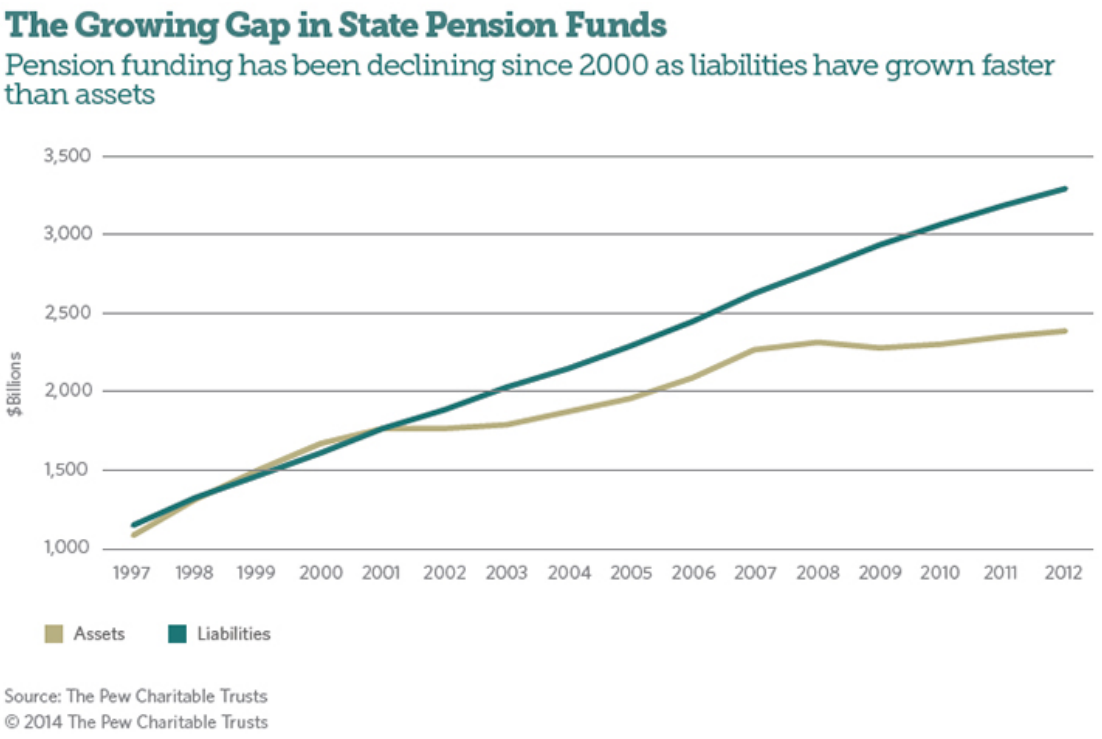
Source: The Widening Gap Update: PEW CENTER ON THE STATES: Issue Brief: JUNE 2012



In April 2014 the Pew Charitable Trusts/Research & Analysis updated their study of the fiscal health of State Pensions. According to their analysis

> *"the gap between what state and local governments have promised in pension benefits to their workers the funding to meet those obligations continues to widen. New data for fiscal year 2012 show that state-run retirement systems had a $ 915 million shortfall. When promises by local governments are factored in, the total pension debt was over $ trillion."*
>
> **Source: "The fiscal Health of State Pension Plans Funding Gap Continues to Grow: April 8, 2014.**

These findings are highlighted in the following graphic.



Source; **The Pew Charitable Trusts Research & Analysis** The Fiscal Health of State Pension Plans Funding Gap Continues to Grow: April 2014.

TIAA-CREF Institute/ The Nelson A. Rockefeller Institute of Government

In December 2012 the TIAA-CREF Institute and the Nelson A. Rockefeller Institute of Government sponsored a forum titled: Public Sector Pension Reform: Addressing Pressing Fiscal Realities from a Long-Term Perspective. Presenters and attendees represented all sectors of public government including legislators and executives of state and local agencies. The forum featured keynote remarks from: Carl McCall, chair of the Board of Trustees of the State University of New York and former New York State comptroller; Roger Ferguson the president and CEO of TIAA-CREF; and former U.S. Representative Earl Pomeroy. Several panels constituting

representatives from the public sector also addressed the issue of pension reform from multiple perspectives.

The outcome of the forum can be distilled into the following themes:

- Depth and Extent of the Current Public Pension Crisis: A small number of states account for a disproportionate share of aggregate unfunded liabilities. Underfunding in these states — such as Illinois, New Jersey, California, and Pennsylvania — is partly the result of past failures to make regular and adequate annual contributions.

- Competing Budgetary Pressures at the State Level: Budgetary pressures at the state and local level make it difficult to increase plan funding and maintain the size of the public sector workforce.

- The Impact of Pension Reform on the Morale of Current and Prospective Public Sector Employees: One essential consideration to public employees is retirement security, about which many public employees are uncertain and uneasy. This lack of retirement confidence reflects more than potential concern regarding the status of their retirement plan, it reflects in part a widespread problem — the lack of financial education and informed retirement planning among U.S. workers, including, but not limited to, public sector employees.

- Short Term versus Long-Term Pension Reform: Most recent changes have been marginal and focused on cost and risk reduction for governments.

- Viability Of Defined Benefit (DB) versus Defined Contribution (DC) Plans: DC plans are not inherently less able than DB plans to provide retirement income security for public sector workers. Appropriate DC design incorporating best-practice plan elements can address retirement income objectives, financial constraints, and the allocation of risk.

- Changing Nature of Employment in the Public Sector: While many DB plans were premised on a career employment model, that model does not fit the experience of many current employees in the public sector and is even less likely to apply in the future. The average tenure, for example, in a state job is 6.4 years.

- The Role of Pensions in Recruiting and Retaining Highly Skilled Workers: Governments employ a highly skilled and educated workforce, with knowledge often developed in the private sector, and will need to do so to an even greater degree in the future. So governments need to compete with

private employers for such talent, and they will need to accommodate greater mobility into and out of public service.

- Public Pension Reform in the Context of Federal Programs: Pension reform should consider the context of federal programs, particularly Social Security and Medicare, given their large role in ensuring retirement security for covered individuals. Benefit cuts and/or payroll tax increases are inevitable as the federal government addresses long-term fiscal deficits.

- Making the Case for Pension Reform among Multiple Audiences: One common dimension is convincing the public — voters, taxpayers, employees, and even policy makers — that a problem exists. Funding challenges are long term and based on calculations and assumptions that can be hard to understand or simply disputed.

Source: Gais, Thomas L. and Yakoboski, Paul J. "Public Sector Pension Reform: Addressing Pressing Fiscal Realities from a Long Term Perspective" TIAA CREF Institute and The Nelson A. Rockefeller Institute of Government, University of Albany

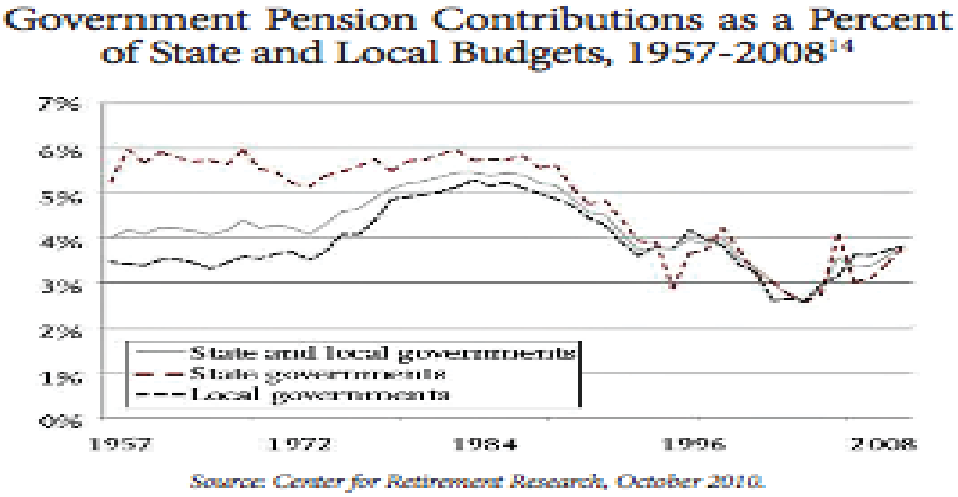
While the forum did not provide specific solutions to the pension reform crisis it did effectively mirror the issues, challenges and potential strategies that are required in order to address the challenge of pension reform in the public sector.

A State Budgeting Perspective on Public Pensions:

In January 2012 The National Association of State Budget Officers (NASBO) published a briefing on changes in state pension systems. The purpose of the briefing was to provide a budgetary perspective on the long-term pension funding adequacy, and the financial cost of promised benefits in relation to the rest of current state spending. The briefing notes that:

"Sufficiently budgeting for public pension systems can help states resolve pension funding issues over time without disrupting current appropriations for public services. "

The briefing noted that pension contributions currently account for a small proportion of states' operating budgets on the order of 4%. This amount however could increase in future years. The graph below provides a perspective on government pension contributions as a percent of state and local budgets:



The briefing also noted that pension costs have traditionally been viewed as a component of compensation funding. The briefing argues that pension costs should be placed within the context total of total state spending. The costs associated with retiree benefits can then be compared against alternative state services that must be given up or reduced in order to meet pension funding requirements.

As noted earlier in this report actuarial methods are used to assess the financial viability of pension plans. Two key concepts are used in developing this assessment: the Annual Required Contribution (ARC) and the unfunded actuarial liability (GAAL)

The Annual Required Contribution (ARC) represents the level of payment needed for the state or funder of the plan to keep pace with the accumulation of benefits. According to the NASBO Briefing document

> *"For many states, the ARC payment remains an anchoring point that helps guide budget deliberations even though the payment may not be legally required. In fact some states have adopted statutes or constitutional provisions tying contribution levels to actuarial calculations or specified amounts in order to insulate pension funding from budget deliberations."*

When a pension plans accrued actuarial liability exceeds the actuarial valuation of assets the plan is said to have an unfunded actuarial accrued liability (UAAL). The ratio of liabilities to assets is depicted as a pension plans' funding ratio, which indicates the level of funds available for paying accrued benefits. The current benchmark for many state and local plans is 80%.

The NASBO briefing document concludes with the observation that:

> *"It is likely that policy actions and increased employee contributions are also necessary to prevent pension system erosion. States can take steps to equally distribute the financial costs of promised benefits between employees and employer. Sound fiscal policy can produce this change over time before pension costs jeopardize state spending for essential services, and before beneficiaries must sacrifice retirement security. "*

IV. Surveys of Higher Education Constituent Groups on Pension Issues and Reforms:

As part of the Higher Education Pension Reform Project a number of surveys were conducted to determine the current status of pension reform in higher education at the state, system and institutional level. The surveys also asked respondents to identify how each segment was addressing the issue of pension reform.

Members of the project advisory committee from the National Association of System Heads (NASH); The College and University Professional Association for Human Resources (CUPA-HR); and The Association of Governing Boards (AGB) agreed to participate in the survey process. The results of these surveys are outlined below.

CUPA-HR Survey:

The College and University Professional Association for Human Resources (CUPA-HR) annually conduct a higher education benefits survey. As part of the 2014 survey CUPA-HR included a number of questions developed by the Higher Education Pension Reform project.

Participants in the CUPA-HR study included 607 institutions in total. Of these participants 370 were standalone institutions and 277 institutions that were part of 29 university systems. Sixty four percent of the participants (237 institutions) were privately controlled and thirty six percent (133) were public. Fifteen percent of the participating institutions offered only associate degrees while twenty four percent also offered bachelor's degrees. Twenty nine percent of the participants also offered masters degrees and twenty three percent offered Doctoral degrees.

The median expenditures of the participating institutions were $ 99 Million and the median student body was 3,611 students and 255 FTE faculty.

Of the institutions participating in the survey:

1. 46% use 2 providers of retirement plans
2. Less than half still offered traditional retirement plans
3. 97% offer 403b plans; 62% offer 457b plans; 25% offer 401a and 13% offer 401k plans.
4. Median average expenditures per covered employee were $ 4,806.

Reponses to specific HEPR questions were as follows:

1. Who is the fiduciary of your plan?
    - 54% an administrative committee
    - 44,5% Governing Board
    - 48% Chief Financial Officer
    - 22.7% Institutional President

2. Do you have an investment committee that reviews investments made by the plan?
    - Yes 67.1%
    - No 32.9%
3. How frequently does this committee meet?
    - 56.4% quarterly
    - 20.2% bi-annually
    - 10.6% annually
4. What is the degree of involvement of the institutions governing board in reviewing the institutions retirement plan?
    - 36.7% not active
    - 46.5 5 somewhat (e.g. approves major changes to the plan)
5. Do most employees contribute to Social Security?
    - 77.5% Yes
    - 6.9% for regular employees only
    - 13.3% have opted out of social security (note: in response to a follow-up question 18 respondents indicated that they offered an alternative retirement plan in place of Social Security. Of these respondents 47.1% contributed 6-10% of salaries while 52.9% offered more than 10%

NASH Survey:

The National Association of System Heads (NASH) is the association of the chief executives of the 44 colleges and university systems of public higher education in the United States and Puerto Rico.

In the spring of 2014 NASH conducted a survey of a select group of its members to gather information on recent developments in pension reforms at the state level. NASH members participating in the study included:

1. University of Hawaii System
2. Idaho State Board of Education
3. Maryland
4. PA State System Higher Education
5. University of Illinois
6. NDPERS
7. State of Tennessee
8. Rhode Island
9. University of Louisiana System
10. Pennsylvania State System of Higher Education
11. University of California

The survey covered the following questions:

1. Describe your role within your state:
    - 14.9% head of a university system
    - 35.71% Chief Financial Officer
    - 50% Chief Human Resource Officer
2. During the current fiscal year (FY2014) or in prior years, have changes been made to your pension program?
    1. 78.57% Yes
    2. 21.43% No

3. Has legislation been introduced to modify the pension program in the state in which you operate?
    - 71.43 % Yes
    - 28.57% No

4. If legislation was introduced to modify the pension program in the state in which you operate in, how will this affect the cost of the plan that your system participates in?

- The cost of the employer contribution rate to the plan will increase as follows (Hawaii):
    - July 2013 16%
    - July 2014 16.5%
    - July 2015 17%

- The legislation this year will seek to significantly reduce employer costs by creating a hybrid defined benefit/defined contribution pension plan for new hires;
- Changes include raising the retirement age from 60 to 62 in the LA State Employee Retirement System. (Louisiana);
- New hires will not be eligible to participate in the existing pension program. They will have a hybrid program that includes a defined benefit plan for the first $ 50,000 of salary and a defined contribution at 4% employer match for the remaining salary;

6. If legislation has been introduced to modify the pension program in the state in which you operate in, how will this affect the liability of the pension plan your system participates in?
    - Liability reduced due to increased contributions by both the employer and the employees and the change in the benefits structure for new members. The actuarial valuation of investment yield rate assumption (from 8% to 7.75%) and mortality rate (employees living longer) have changed.
    - It will save $ 11 billion over the next 30 years.

The results of the NASH survey tend to mirror both the literature on pension reform and experiences of the states and institutions outlines in the case study section of this report.

AGB Survey:

In the fall of 2014 the Association of Governing Boards in conjunction with the Higher Education Pension Reform project conducted a survey of its members on the current state of college and university retirement plans. The number of respondents to the survey was limited but those that did respond provided a sense of the general atmosphere and issues of concern to board members.

The questions and responses to the survey were as follows:

1. To what extent is your board concerned about future financial liabilities associated with employee pension retirement plans?
    - Greatly concerned 38.46%
    - Somewhat concerned 30.77%
    - Not concerned at all 30.77%
2. If your board is somewhat concerned or greatly concerned what specific issues are you most concerned about as it pertains to financial liabilities for employee pension/retirement plans?
    - Penalties imposed on colleges. Shifting responsibility from state to local entities. Will it be gradual or all at once, posing a great concern for impact on the budget?
    - In Illinois the employer share for community colleges are paid by the state. There are plans to shift that cost to the colleges. We have plans in

place if the shift is gradual over time, but would have difficulty if it is abrupt.

- Ability to fund the plan in the future.
- Cost shifting with no control over payouts.
- We feel that we are at risk of losing faculty and staff. Contributions were suspended for the past couple of years.

3. What options has the board considered in addressing pension/retirement liability issues?

- Freeze the current defined benefit plan for existing employees but move all employees to a defined contribution plan 22.22%
- Keep the existing defined benefit plan but increase employee contributions 11.11%
- Keep the defined benefit plan and increase both the employer and employee contribution 11.11%
- Other 55.56%

Specific other responses:

- We are in a state defined benefit plan. Encourage faculty to join the optional defined contribution plan.
- We have little control of the details of the pension. The legislature and the courts decide changes.

4. Please explain why your board has considered the options you have indicated above:

- The state of Illinois has an unfunded plan. There are concerns about the state's ability to pay out the expected benefits;
- Lack of local control;
- We are a state system. The Board does not have authority over the retirement program.

5. Please select, which board committee currently oversees issues about employee pension/retirement plans?

- Finance Committee 81.82 %
- Compensation Committee 9.09 %
- Investment Committee 9.09 %
- Other Committee 18.18 %

Other please identify:

- The board of 7 trustees acts as a committee of the whole;
- The board does not have authority to oversee the plan;

6. What type of pension plan does your institution offer?

- Defined Benefit 46.15 %
- Defined Contribution Plans to which both employees and employers contribute 53.85 %

7. If you have a defined benefit plan is it tied to a state retirement plan?

- Yes 50.0 %
- No 40.0 %
- Do not know 10.00 %

8. Respondent's role

- Board Chair 53.85 %
- Board Member (and not chair) 46.15 %

9. The institution(s) I serve is/are

- Associate 30.77 %
- Baccalaureate 46.15 %
- Masters 15.38 %
- System 7.69 %

10. My institution is

- Public, part of a system 16.67 %
- Public, not part of a system 33.33 %
- Private 50.00 %

V. Case Studies: Impact of Pension Reforms on Segments of Higher Education:

Site visits and the development of case studies was an integral component of the Higher Education Pension Reform Project. In developing the site visit and case study methodology it was determined that the most effective approach was to group the

site visits and case studies into three segments: public colleges and universities that were covered by state retirement systems; those covered by university system retirement programs; and institutions with their own governing boards. Under this dichotomy project staff made site visits to the following locations:

States:

a. Michigan
b. Rhode Island
c. Utah

Public University Systems:

a. University of California System
b. California State University System
c. University of Missouri System

Institutions with Their Own Governing Boards:

a. Virginia Tech

Pension reform at the State Level:

In those states in which public universities and colleges participate in state retirement systems pension reform has to take place at the state level. To examine states in which pension reform has taken place site visits were conducted in three states; Michigan; Utah and Rhode Island.

Successful pension reform at the state level requires several major components:

- Data gathering and analysis of the need for pension reform;
- Developing a plan for addressing key issues;
- Obtaining the support of key decision makers both in the legislature and the governor's office;
- Communicating with key stakeholders both the rational for pension reform and a plan to address this issue;
- The ability to integrate multiple points of view into the plan;
- Ability to defend the plan within the judicial system.

In examining the history of recent pension changes at the state level the impact of the recession of 2008 appears to be a key motivator in a number of states. State pension plans that had been fully funded prior to 2008 suddenly found their plans only able to cover 70% or less of their projected liability. Also old assumptions related to the anticipated rate of return on pension funds had to be revisited. Prior to 2008 a rate of return of 8% was the norm after 2008 rates of return were projected at half that amount. Finally the crisis of 2008 caused many states not to fund their ongoing pension liabilities due both a lack of revenue and the demands of other sectors of state government.

In Utah State Senator Dan Liljenquist led state pension reform efforts. Senator Liljenquist conducted a study of both the states outstanding and future pension liabilities and proposed possible ways of addressing the issue. In Michigan Governor Engler led the effort to reform both the Michigan State Employees' Retirement

System and the Michigan Public School Employees Retirement System. In the state of Rhode Island pension reform efforts were led by and Governor Chafee and General Treasurer Gina Raimondo

State of Rhode Island:

In 2011 in an effort to address a $ 14.8 Billion deficit in its public employee pension system the State of Rhode Island passed the Rhode Island Retirement Security Act (RIRSA) of 2011. The major impetus for this reform effort was to:

- Provide retirement security for the state's public employees;
- Save the state's taxpayers $ 4 Billion over the two decades following the passage of the act;
- Reduce the state's unfunded pension liability by $ 3 Billion;
- Bring the funding status of the state pension system from 48% to 60%

As of 2011 the RIRSA encompasses 66,000 members. The RIRSA was designed to modernize and eventually fully fund the state pension system. It also provided a similar level of retirement benefits for active employees as the prior system but within a structure that shared market risk more evenly between taxpayer and employee.

Key components of the RIRSA design were:

- Tied cost–of-living adjustments to the funding level of the pension system;
- Tied cost of living adjustments to actual investment returns;
- Raised the retirement age to match the Social Security Retirement age;
- Created a combined defined benefit pension and a mandatory defined contribution program

The defined benefit and defined contribution programs had the following components:

- Defined Benefit Program: 3.75% employee and 21.18% employer contribution;
- Defined Contribution 5.00% employee and 1.0% employer contribution;
- If pension plan is less than 80% funded COLA is suspended.
- COLA resumes annually at date of retirement anniversary when plan is greater or equal to 80% funded for eligible retirees.

The success of pension reform in Rhode Island was dependent on the support of state leadership combined with a communication plan that clearly articulated the rationale behind the changes and how the changes affected retirees, active employees and new employees. For example a series of FAQs was developed to walk employees and retirees through the various aspects of the new plan. Even with

these plans in place the plan has been the subject of numerous court challenges. These challenges have in part centered on the retirees right to receive COLAs.

In March 11,2013 a Rhode Island Superior Court judge ruled that a pending agreement between the City of Providence and its public safety retirees regarding pension and post-employment benefit reforms was "fair and reasonable." According to Moody's Investor Service:

> *"The ruling is credit positive for Providence because it signals that the court is likely to approve the pending agreement, which would materially reduce the city's costs by suspending cost of living adjustments for retired pensioners for the next 10 years and transfer retirees onto Medicare. The decision to allow benefit adjustments outside of a federal bankruptcy filing could set a precedent for similar agreements between other Rhode Island communities and their employees"*

State of Michigan:

Historically the State of Michigan has operated two large pension systems for state employees the Michigan State Employees' Retirement System (MSERS) and Michigan Public School Employees Retirement System (MPSERS). The state employees' retirement account was well funded, but the public school employees' pension fund had an unfunded liability of $6.9 billion. Members of the Michigan State Employees Retirement System include:

- 7 Public Universities including: Central Michigan University, Eastern Michigan University, Ferris State University, Lake Superior State University, Michigan Technological University, Northern Michigan University, and Western Michigan University.

> **Note**: *At the seven public universities that are members of MPSERS, only those employees hired prior to January 1, 1996 are members of MPSERS. All other employees are covered by a defined contribution plan where a percentage of employee earnings are contributed by their institution into the employee's individual 403(b) retirement account with TIAA-CREF. The percentage contributed by the employer is based on the employee group. The plan is open to benefit eligible employees who are not eligible for the defined benefit plan (see Northern Michigan University).*

- 28 community colleges
- Intermediate school districts
- Public K–12 school districts
- Certain public school academies
- Certain local library districts

In 1996 Michigan Governor Engler became concerned about the financial viability of the two pension systems. These concerns were driven in part by the impact of changes in the stock market that affected the value of pension plan assets. Another major concern was the impact of future pension fund liabilities on the overall state budget. According to Anthony Randazzo in Pension Reform A Case Study: Michigan: "Governor Engler estimated that within 20–25 years the promised pension benefits could bankrupt the system. "

To address these concerns a pension reform proposal was introduced in 1996 to replace the current defined benefit system with a defined contribution system. The legislation proposed closing the defined-benefit systems to new hires and launched

new defined-contribution systems for state and public school employees to participate in.

The rationale supporting these reforms was that under the existing defined benefit system the investment risk was placed on the employer (in this case the state of Michigan) in that adequate funds had to be available to cover the cost of future retirement benefits. This risk was mitigated if the pension fund generated sufficient returns to cover future liabilities or if the state stepped in on an annual basis to cover the short fall.

The proposed defined contribution program transferred any potential risk to the employee. Under the defined benefit plan the state would contribute a fixed amount per year into the employees retirement account. If the funds are inadequate to cover future needs the employee could contribute additional funds into his/her defined benefit account.

Pension reform legislation was introduced in the Michigan House of Representatives on November 19, 1996. A bill to reform MSERS passed the House 56–40 on December 5 and the Senate 21–16 on December 11. However, a bill to reform MPSERS in the same way failed to garner enough votes for passage. Governor Engler signed the MSERS reform bill on December 23, 1996. (Source; Anthony Randazzo; A Pension Reform Case Study: Michigan: Reason Foundation 2014)

Over the next several years bills were introduced to address concerns related to MPSERS. In 2010 the legislature passed Public Act 75. This act sought to raise revenue to fully fund MPSERS by:

- Creating an early retirement incentive for eligible public school employees to retire.
- Offering a hybrid defined benefit/defined contribution plan for new public school employees (with vesting requirements of 10 years and higher contribution rates for the DB plan and a two percent of salary contribution to the DC plan with a 1% match from the state);
- Requiring all members of MSPERS, including retirees, to contribute 3% of their salaries to a fund for paying health care benefits.

In April 2011 a Michigan Court of Claims ruled the three percent contribution to health care benefits by retirees violated the state constitution. This ruling was upheld by a Court of Appeals in August 2012, with the state then appealing to the Michigan Supreme Court.

In August 2012, the legislature attempted to solve some problems with the 2010 bill by giving public school employees the option of joining a defined-contribution plan like MSERS Tier 2, or pay the three percent contribution to health care benefits. In addition the law reduced the state subsidy for health care premiums to 80 percent

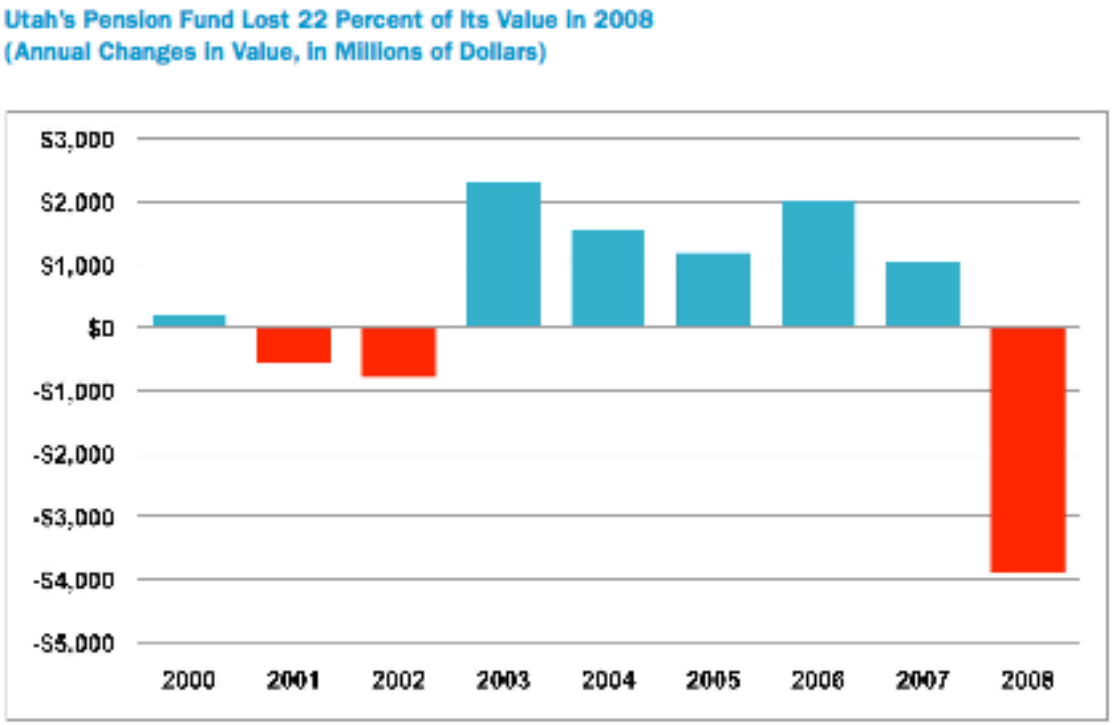
for current employees, but ended all OPEBs for new hires and instead established health savings accounts for them with contributions of two percent of salary.
The pension reforms in Michigan increased the predictability and stability of state retirement systems. Instead of the state relying totally on the performance of pension funds in the stock market the new plans provided a predictable way of providing retirement and health care benefits.

State of Utah:

The financial crisis of 2008 had a significant impact on the Utah state pension fund During the 2008 stock market plunge it lost 22% of its assets. The fund went from being nearly 100% funded in 2007 to 70% funded by 2009. Utah suddenly faced a long-term $6.5 billion funding gap, and the state would have had to nearly double its annual contributions out of the current budget to make up the shortfall. (Source: The Utah Pension Model: Wall Street Journal; January 19, 2011)

Concerned by this precipitous drop in value State Senator Dan Liljenquist commissioned a series of actuarial studies to assess the financial condition of the pension plan. The results of this analysis indicated that the state was a assuming a 7.75% rate of return on pension assets. According to the actuarial analysis if the rate of return was to drop to 6% the plan would become insolvent. Furthermore the Utah state constitution limits total state debt to 1.5% of the value of all property in the state.

The following graphic highlights changes in the value of the assets of Utah's pension plan:



Source: Public Sector Pension Reform: Addressing Pressing Fiscal Realities from a Long-Term Perspective, TIAA-CREF Institute and The Nelson Rockefeller Institute of Government.

The first challenge in dealing with pension funding crisis was to get information out to all affected parties from plan participants, to the representatives of state government, to the citizens of the state of Utah. Since the analysis of the plan and its future prospect were largely driven by complicated formulas and data convincing the public meant translating the problem into a series of tradeoffs. According to Liljenquist a breakthrough occurred when state officials:

> *"translated what those numbers meant for actual services in our community." In a state with a large number of children, the cost of inactivity on pension reform was estimated to be 8,000 lost teacher positions. "And once people understood what the tradeoff was — what the opportunity costs were — they*

woke up." Editorial boards across the state wrote that something had to be done. "Another year like this we're off a cliff."

Source: Public Sector Pension Reform: Addressing Pressing Fiscal Realities from a Long-Term Perspective, TIAA-CREF Institute and The Nelson Rockefeller Institute of Government.

Changes to the Utah Retirement System pension plan were as follows:

The URS Plan would have two tiers:

- Employees hired prior to July 1, 2011, enter one of six Tier 1 plans (depending on their type of employment).
- Tier I: Employees hired into eligible positions on or before June 30, 2011

  If enrolled in the URS plan on or before June 30, 2011, employees were automatically reenrolled in Tier I
- Tier II: Employees hired into eligible positions and first enrolled in the URS plan on or after July 1, 2011. Tier II had two different options, the Hybrid option and the Defined Contribution option—employees could choose which option they preferred during their first year of participation.

- **Tier II – Hybrid Option** (this is the default option):
  - Employees accrue service credit for years of participation (one year of full-time work equals one year of service credit)
  - Employees must have at least 4 years of service credit in order to receive benefits at retirement
  - Benefits are paid monthly after employee retires
  - Benefits are based on employees highest average monthly salary (calculated using your highest full five years with the University)
  - Employee will receive 1.5% of his/her highest average monthly salary for each year of service credit
  - Contribution to a 401(k) plan varies

- Employees may be required to make a contribution to this plan in the future if the cost of the plan increases
- A limit on COLAs of 2.5 percent.

- **Tier II - Defined Contribution Option:**
  - The University contributes an amount equal to 10% of your salary to a 401(k) account with URS
  - You must have at least 4 years of participation in the plan in order to receive benefits
  - After you are vested, you choose how the money is invested

(Source: Division of Human Resources: University of Utah 2015)

According to Senator Liljenquist the benefits associated with these changes were that:

> "Taxpayers are protected against having to make extra contributions to the DB plan. If in any given year the plan requires additional funding to receive its "certified contribution rate," employees, not tax- payers, must make up the deficiency. This requirement makes certain that the DB plan is fully funded. "

Like the states of Virginia, Arizona and Rhode Island not all university employees are required to participate in the Utah Retirement Plan. For example at the University of Utah non-exempt University staff employees in benefit-eligible positions are automatically enrolled in the Utah Retirement Systems Plan (the "URS Plan") but eligible university faculty and staff in exempt (salaried) positions are automatically enrolled in the 401(a) Defined Contribution Retirement Plan. Under this plan the University contributes an amount equal to 14.2% of the participant's

salary to a retirement account in the participant's name. Participants are vested immediately. Under this plan two investment providers are available:

Fidelity Investments

TIAA-CREF

Employees may choose how their funds are invested and change their investment options at any time through the investment providers' websites or customer service departments.

In summary the Utah pension reforms allowed the state to have a level of predictability as to its future liabilities. As to participants in the defined contribution plan although the state's contribution to their defined benefit plan is capped at 10% they also have a level of predictability. Employees enrolled in the defined contribution plan also have portability in that their pension assets can follow them if they choose to leave the state or employment with the state.

Recent developments at the State Level

In March of 2015 Standard and Poor's Rating Services published a report titled "Six Years into The Recovery, Pensions Are A Big Divider of U.S. State Credit". The report indicated that:

> *"Despite strong equity market performance over the past two years pension liabilities and associated budget pressures are forcing continued policy debate and remain a funding dilemma and a source of credit pressure for many states"*

The report cites the following issues that will shape the public policy debate, budget deliberations, and potential credit quality in the future:

- Accounting and actuarial changes continue to shape liabilities and funded ratios;
- The growing gap between well-funded and poorly funded pension systems;
- Reform efforts are slowing in some cases, and are in legal limbo in others. Either way, the impact on public pension plans in general could be negative.
- A renewed interest in pension obligation bonds as a financing tool for unfunded pension liabilities.

(Source: Six Years into The Recovery, Pensions Are A Big Divider of U.S. State Credit, Standard & Poor's Ratings Direct, March 24, 2015)

Pension Reform at Public University Systems:

A number of public colleges and universities in the United States are members of public university systems. Systems such as the University of California and the University of Missouri System have chosen to offer their own pension systems. Other systems such as the Arizona Board of Regents and the California State University System participate in their state' retirement system.

Public colleges and universities that participate in their state's retirement plan are bound by the provisions and regulations of the plan that affect all participating state agencies. The University of California System and the University of Missouri System, however, can directly affect the structure and attributes of their pension systems.

University of California System:

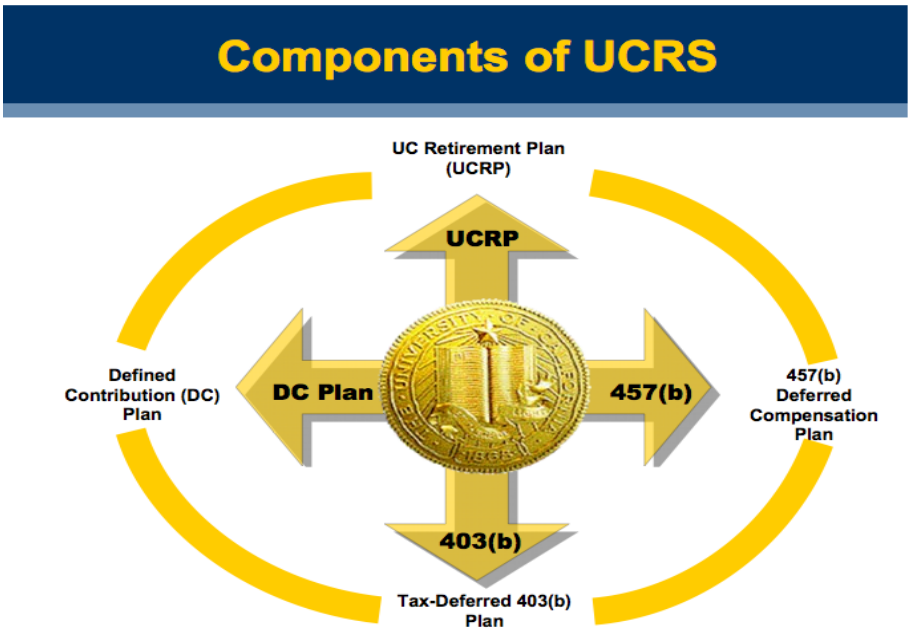
The University of California was founded in 1868 as a public, State-supported land grant institution. The State Constitution establishes UC as a public trust to be administered under the authority of an independent governing board, the Regents of the University of California. The University maintains 10 campuses: Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, San Francisco, Santa Barbara, and Santa Cruz. Nine of the campuses offer undergraduate and graduate education; one, San Francisco, is devoted exclusively to health sciences graduate and professional instruction. The University operates teaching hospitals and clinics on the Los Angeles and San Francisco campuses, and in Sacramento, San Diego, and Orange Counties. Approximately 150 University institutes, centers, bureaus, and research laboratories operate throughout the state. The University's Agricultural Field Stations, Cooperative Extension offices, and the Natural Reserve System benefit all Californians. In addition, the University provides oversight of the Lawrence Berkeley National Laboratory and is a partner in limited liability corporations that oversee two additional Department of Energy laboratories.

University employees whose appointments are at least 50 percent time for a year or more are eligible for membership in the **University of California Retirement Plan (UCRP).** UCRP is a defined benefit plan that provides retirement, survivor and disability income, as well as a lump-sum death benefit. Academic employees who

became UCRP members after April 1, 1976, are automatically covered by Social Security. Both UCRP members and the University pay Social Security taxes. UCRP benefits are funded from University and member contributions and the investment earnings thereon. Members can be eligible for benefits from UCRP and Social Security. As part of the University of California Retirement System (UCRS) university employees can also, on a voluntary basis, participate in an optional tax-deferred 403b and 457(b) deferred compensation plan. The University also administers an additional defined contribution plan beyond UCRP.

In UCRP monthly lifetime retirement benefits are based on a formula, which uses the member's UCRP service credit, average of the highest three consecutive years salary, and age at retirement. Upon death, a portion of the benefit is automatically continued to the member's surviving spouse or other eligible survivor(s). If the member wishes to provide additional survivor benefits for the spouse or another person, the member's retirement benefit will be reduced depending on the option chosen by the member at retirement. In lieu of monthly retirement benefits, members may elect lump sum cash out.

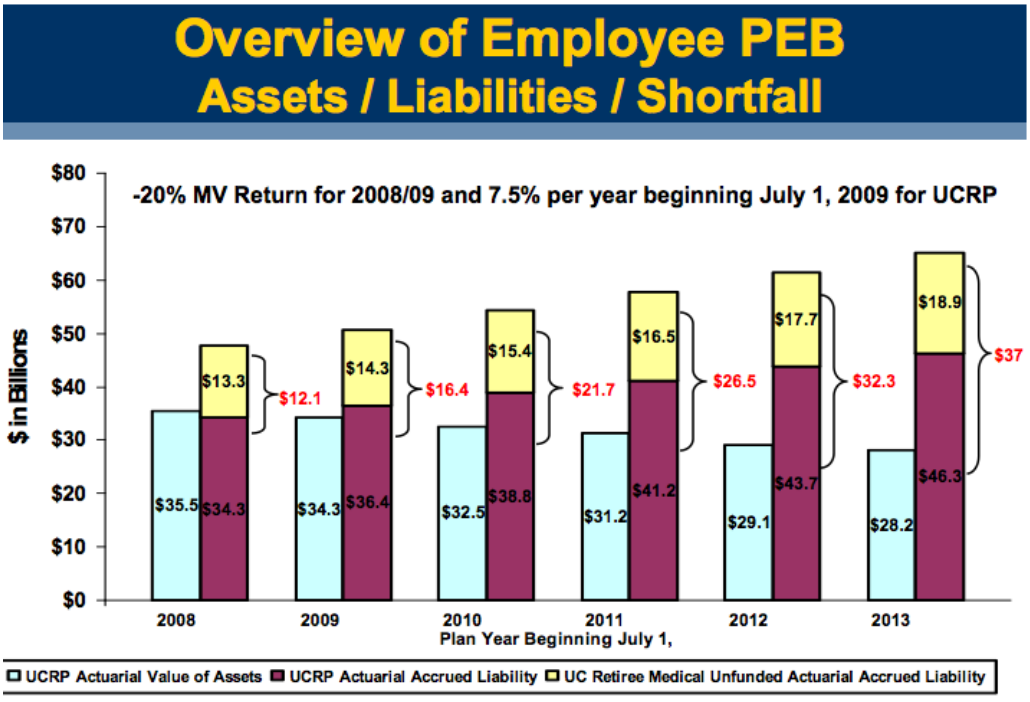
The various components of the University of California Retirement System, including the UCRP are outlined below:



Source:

The President's Task Force on Post-Employment Benefits: Spring Local Form

In FY 2009 the University of California UCRP was facing a significant unfunded liability for its pension and retiree health programs. In part this was due to the fall in the value of assets attributable to the UCRP as a result of the 2008 – 2009 financial crisis and in part to the fact that member contributions had not been required since November 1, 1990. The extent of this liability is outlined below:



To address this issue the University of California Board of Regents at their February 6, 2009 approved a restart of contributions to UCRP and President of the University appointed a Task Force on Post-Employment Benefits (PEB) in March 2009. After consultation with affected faculty and staff and following an in depth analysis of all the major factors affecting the UC pension plan the task force recommended and the UC Regents approved a series of measures designed to preserve the long-term viability of its pension and retiree health benefits programs.

Effective April 15 2010, the University started contributing 4 percent and employees started contributing 2 percent of covered compensation to the Retirement plan. At its September 2010 meeting UC Regents approved increasing the employer and employee contribution rates to the Retirement Plan. Contributions by members were increased to 3.5 % of covered compensation in July 2011 and 5% in July 2012 and contributions by the University were increased to 7% of covered compensation in July 2011 and 10 % in July 2012.

The University also approved a new tier of pension benefits applicable to employees hired on or after July 1, 2013. This new tier increased the retirement age from 50 to 55 but retained many of the features of the current plan. The new tier would also not offer lump sum cash outs, inactive member Cost of Living Adjustments (COLA) or subsidized survivor annuities for spouses and domestic partners.

UC also adopted a new graduated eligibility formula to determine how much it paid toward retiree health insurance premiums. The formula, which raised the minimum age at which retiring employees will be eligible for a UC contribution, will affect all UC employees, except Safety employees, hired on or after July1, 2013, and employees hired before that date who do not come under grandfathering provision

These measures were part of a coordinated strategy to support retention of valuable, long-serving employees at all levels of the organization by encouraging the UC workforce to retire later when they would be eligible for Social Security and Medicare benefits. In addition, UC reduced its contributions to its retiree health plan to more closely align with those offered by other large public employers.

Specific changes by type of employee are outlined below:

Current employees

- Accrued UCRP pension benefits are protected – they cannot be reduced or revoked.
- UC continues to offer the same UCRP pension benefits.
- Current employees continue to be offered retiree health benefits.
- Vested employees whose age and years of service together equal 50 or greater have the same health care eligibility rules.
- All employees – faculty, staff and administrators – will pay more toward their pension benefits over the coming years, at levels similar to employees at other organizations.

Employees UC 7/1/2012	5%	10%
Employees UC 7/1/2013	6.5%	12%

- Effective July 1, 2013, employees whose age plus years of service is less than 50, and those without at least five years of service, have new retiree health care eligibility rules.

Current retirees

- Current pension benefits remain unchanged.
- Retirees continue to receive health benefits.
- Eligibility for health benefits has not changed.
- Retirees do not contribute to UCRP.
- UC is gradually reducing its contributions to medical premiums to a floor of 70 percent; many retirees will pay a higher percentage of their monthly health insurance premiums.

Future employees /retirees

- Like current employees, all future employees will help pay the cost of their pension benefits.
- Like current retirees, future retirees will be offered health benefits and will pay a percentage of their monthly premiums.
- Employees hired on or after July 1, 2013 will be offered competitive pension benefits via a new UCRP tier; they will contribute 7% while UC contributes 12%.
- Employees hired on or after July 1, 2013 will be subject to new eligibility rules regarding retiree health benefits.
- Former UC employees rehired on or after July 1, 2013 will earn pension benefits via a new tier of UCRP for service that begins July 2013 or later; benefits accrued under the current tier will not change.
- Former employees rehired on or after July 1, 2013 will be subject to new eligibility rules for retiree health.

S**ource**: University of California Office of the President

In addition to the above changes to the plan the UC Regents also delegated to the President of the University the authority and discretion to fully fund the unfunded portion of the normal cost (defined as the portion of the actuarial present value of the benefits that the retirement plan will be expected to fund that is attributable to the current year's employment) and interest on the UAAL (defined as amount by which the retirement plan liabilities exceed the actuarial value of the retirement plan assets) through a combination of transfers from the Short Term Investment

Pool, sale of long term debt and restructuring of existing debt . In March 2011 The Regents approved a $ 2.1Billion funding plan for the Retirement Plan and in April 2011, $ 1.1 Billion from the Short Term Investment Pool was transferred to the retirement plan.

In reviewing the actions taken by the UC Regents the question comes up as to why the decision was made to retain the defined benefit plan rather than freezing the current plan and moving to a defined contribution or a hybrid defined contribution/defined benefit plan. The report of the report of the President's Task Force on Post-Employment Benefits offers the following explanation:

> *The University has long provided valuable post-employment benefits, principally a Defined Benefit (DB) pension plan (UCRP) and Retiree Health program. These benefits have been critically important for recruiting and retaining outstanding faculty and staff-a key component of the University's excellence. In particular, UCRP provides incentives for long careers at the University and promotes recruitment of talented young people to develop a career with university*

This conclusion was bolstered by a study conducted by Towers Watson National Survey in 2009 of 17,700 faculty and policy covered staff. Sample respondent results found that;

- Post-employment benefits are among the top reasons that faculty come to and stay at UC;
- 80% respondents expressed a high satisfaction with UC retirement benefits;
- 73% of respondents indicated that they planned to retire with 20+ years of service;
- Many respondents placed a higher value on retirement benefits (69%) versus cash compensation (13%)

In summary the Post Employment Benefit Task Force participants were unanimous in "advocating the preservation of the UCRP as a Defined Benefit plan but realize the necessity of providing a DB pan that is sustainable and can be maintained within the confines of the University's operating budget.

As part of his May revision to the FY 2015-16 state budget Governor Brown provided one time funds to reduce the University of California's unfunded pension liability. In exchange for increased State funding for the University's pension plan, the Governor required UC to implement by July 1, 2016, a new category ("tier") of retirement benefits for future UC employees that aligns pension-eligible UC employee pay with that of State employees. This proposal was subsequently included as part of the State's FY 2016 Operating Budget.

Pension benefits for current faculty and staff were not affected. The new pension tier will apply only to future employees hired after it is implemented, which is currently scheduled for July 1, 2016. There will be no changes to existing employees' pension benefits – accrued pension benefits are protected by law and cannot be reduced or revoked.

As of July 2015 the specific design of the new tier had not been decided but will be developed over the coming months. In general, the new tier is expected to include the option of a new traditional defined benefit pension plan with a pension-eligible salary limit up to the California Public Employees' Pension Reform Act of 2013

(PEPRA) cap (currently $117,020); a defined contri-bution plan such as a 403(b); or a combination of the two.

Faculty and staff will be involved in the development of the new tier. The design of the new tier will also be informed and guided by input from members of the UC community, including Regents, faculty, staff, and other stakeholders, as well as an advisory UC task force that will include faculty and staff.

Unions will help determine choices for their members. As with previous pension reforms, application of the new tier to union-represented employees will be subject to collective bargaining and union leaders will help determine their members' choices.

The University of Missouri:

The University of Missouri has provided teaching, research and service to Missouri since 1839. The university remained a single campus until the School of Mines and Metallurgy was established in Rolla in 1870. In the same year, the university assumed land-grant responsibilities of providing higher education opportunities for all citizens. In 1963, the university again expanded to better serve Missouri by founding a new campus in St. Louis and acquiring the University of Kansas City, creating the present four- campus system.

Today, the University of Missouri is one of the nation's largest higher education institutions, with more than 77,000 students on four campuses and an extension program with activities in every county of the state.

The University's Retirement, Disability and Death Benefit Plan, commonly referred to as the Retirement Fund, is a defined benefit pension plan established to provide retirement income and other stipulated benefits to qualified employees. A Trust was established in 1958 and is funded to provide the financial security of those benefits. The Retirement Fund is diversified across appropriate asset classes to reduce overall risk. The Fund's investments are managed by professional money managers and supervised by the Office of the Treasurer.

In 2009, the President of the University of Missouri reopened discussions regarding whether it would be in the University's and its employees‟ best interest to close the UM DB plan for new participants (continuing the UM DB plan for current participants), and create a new DC plan." His primary concern was the significant risk borne by the University by its current DB plan, especially as the investment returns became volatile during the fiscal crisis of 2008-2009.

In 2008 the university also created a stabilization fund to ease the impact of retirement-plan cost volatility on the university's budget. In years that the required university contribution is less than a specified percentage of the budget, the

difference is placed in the stabilization fund. When the required contributions are greater than the specified percentage, the extra amount can be taken from this fund. (**Source**: Robert Steyer, Pensions and Investments**,** January 9, 2012)

Given the importance of the subject and concerns voiced by faculty, staff, and some Board members, the President determined that next steps would include formation of a committee to provide advice to the Vice President for Human Resources. This committee, appointed on November 15, 2010, included members of the Intercampus Faculty Council (IFC), the Intercampus Staff Advisory Council (ISAC), the UM Retirement and Staff Benefits Committee (the regular standing committee responsible for administering the retirement plan under Collected Rules and Regulations Section 530.010.M. and which has also served as a long- standing advisory committee on other faculty and staff benefits issues), and a representative from MU Healthcare.

The UM Retirement Plan Advisory Committee's specific charge was

> *"to assist the Vice President for Human Resources in the development and communication of recommendations regarding retirement plan offerings, including the possibility of a Defined Contribution plan for future employees, and to facilitate the dissemination of information to and from stakeholders."*

In reviewing the University's current DB plan the Committee noted that

> *While many DB plans are clearly in trouble, due primarily to chronic underfunding and expensive plan features such as generous early retirement features, guaranteed retiree cost of living adjustments (COLA‟s) and the ability to purchase additional service credits at a discount, the University of Missouri's plan has purposefully avoided those pitfalls, even during "good" times.*

After intensive fact-finding and deliberations the committee came to the following conclusion:

> *"after thorough and careful study of the viability of the current UM DB plan (both short term and long term), the Board determines it is not in the University's interest to continue to bear the financial risks implicit in the current UM DB plan, the preferred alternative plan design is a new retirement plan, for new employees only, that provides a 'combination' of defined benefit and defined contribution elements, along with other mechanisms for reducing risk. "*
> *(*Source: Report from the UM Retirement Plan Advisory Committee: March 2011)

The committee proposed a possible combination DB/DC plan to the current DB plan.

The elements of this combination Plan are outlined below.

Plan Design Elements	Combination Plan Design	Current DB Plan
	DB Portion	
Multiplier Formula	1.1% of Pay, average of 5 highest consecutive years of salary	2.2% of Pay, average of 5 highest consecutive years of salary
UM Contribution	3.4% of salary	7.25% of salary
Vesting	5 years	5 years
Employee Mandatory DB Contribution	None	1% up to $50,000, 2% of amount above $50,000
Minimum Value Accumulation*	None	5% of pay at time of termination
	DC Portion	
UM Automatic Contribution	2% of Pay	
UM Match	100% up to an additional 3% of pay	
Employee Mandatory Contribution	1% of Pay	
Vesting	3 years	
Estimated UM Contribution	7.5 to 7.9% of Pay	7.25%

(Source: Report from the UM Retirement Plan Advisory Committee: March 2011)

In their closing remarks to the report the Committee noted that:

> *It is important to acknowledge that the Committee, despite its best effort, was not able to reach a unanimous decision. Some members of the Committee believe it is in the best interests of the University and its employees to maintain the current UM DB plan if at all possible. Others believe that closing the UM DB plan and offering a combination plan for new employees best meets the needs of the University and its employees at this time. And at least one Committee member's first preference would be to offer a pure DC plan. Such differences of opinion are very much respected and are, at least in part, a reflection of our differing needs and perspectives as faculty and staff members. Nonetheless, every member of the Committee supports the consensus reached by the Committee.*

The plan that was ultimately approved by the University of Missouri Board of

Curators was similar to the plan proposed by the committee:

Plan Design

Plan Design Elements	New Retirement Plan	Current Retirement Plan
	Defined Benefit Portion	
Multiplier Formula	1.0% of Pay, average of 5 highest consecutive years of salary	2.2% of Pay, average of 5 highest consecutive years of salary
UM Contribution	3.21% of salary	7.25% of salary
Vesting	5 years	5 years
Employee Mandatory DB Contribution	1% up to $50,000, 2% of amount above $50,000	1% up to $50,000, 2% of amount above $50,000
Minimum Value Accumulation	None	5% of pay per year with 7.5% interest
	Defined Contribution Portion	
UM Automatic Contribution	2% of Pay	
UM Match	100% up to an additional 3% of pay	
Vesting	3 years (need not be consecutive)	
Estimated UM Contribution	7.4 to 7.7% of Pay	7.25%

Source: Advancing Missouri; New Retirement Plan: Board of Curators, October 20-21, 2011

Although the outcomes of the University of California's and the University of Missouri differed in terms of the final recommendations the process both used to arrive at their final recommendations were similar. They both involved the formation of committees that represented the various stakeholders in the process. They also used external advisors to analyze all aspects of their current plan propose alternative ways of administering the plan. They also both had a timely and comprehensive communication strategy to all affected parties including the use of web pages and email communications. In the case of the University of California a survey of all faculty and represented parties was also conducted. In the end the solution chosen represented a combination of prudent financial management but with the recognition of the unique cultural traditions of each institution.

Another take away from the University of Missouri experience was the recognition that retirement plans were only one component of a benefit package. This resulted in the University implementing a ***Total Rewards Initiative***.

Formed in June 2013, the University of Missouri Total Rewards Ad Hoc Task Force was charged with assisting the Vice President for Human Resources in developing and communicating recommendations to improve the university's Total Rewards Program offerings. The Task force recommended the following 8 strategies:

- Treat pay and benefits as interrelated parts of the overall Total Rewards strategy.

- Establish a benefits rate cap.
- Increase flexibility within the Total Rewards programs.
- Utilize medical plan options to encourage healthy behavior and efficient use of healthcare services.
- Leverage marketplace opportunities for retiree medical benefits.
- Evaluate additional retirement plan options.
- Evaluate staff time-off plans.
- Invest in communication and education about Total Rewards that promotes informed decision-making

Total Rewards includes all benefits and compensation for benefits-eligible faculty and staff (employees), retired faculty and staff (retirees), and their respective benefits-eligible dependents (dependents). The following programs and plans for employees, retirees and dependents were specifically included in the Task Force charge:

1. Retirement plans
2. Medical insurance plans
3. Ancillary insurance plans (Long Term Disability, Dental, Vision, Life/Accidental Death and Dismemberment)
4. Tuition Reduction/Educational Assistance programs
5. Post-retirement medical insurance plans

Thus what began as a review of retirement plans has now come to encompass strategies to improve benefits for both employees and to enhance the university's financial viability.

California State University

The California State University (CSU) is a leader in high-quality, accessible, student-focused higher education. With 23 campuses, almost 447,000 students, and 45,000 faculty and staff, CSU is the largest, the most diverse, and one of the most affordable university systems in the country.

The benefit structure for state employees (including the CSU) is defined by statute. State law mandates that participation in CalPERS for all CSU faculty and staff holding full-time appointments of at least six month durations and part-time appointments of at least one year duration. CalPERS utilizes contributions of the employer and the employee as well as income from investments to pay for employee retirement benefits. Employee and employer contributions are a percentage of applicable employee compensation. The employer contribution is set annually by CalPERS based on annual actuarial valuations. The employee contribution is currently 5% of salary for Miscellaneous.

The majority of CSU employees are Miscellaneous Tier One members and contribute 5 percent of pay, less an exclusion allowance for participation in Social Security. CSU's police officers are members of CalPERS Peace Officer/Firefighter (POFF) category. The employee contribution required for this category is 8 percent of pay, without an exclusion for Social Security since these employees are not in Social Security. However, under the terms of prior collective bargaining agreements with

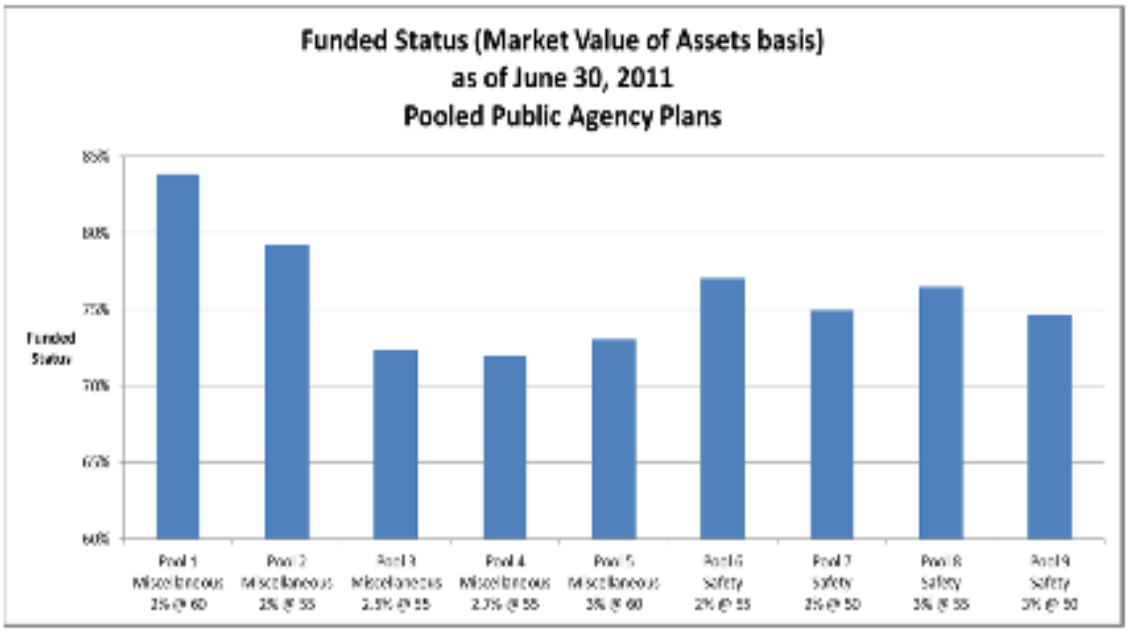
bargaining unit 8, representing CSU's rank-and-file police officers, the CSU has paid both the employer and employee contributions. The state's recent pension reform act--PEPRA—(discussed later in this section) prohibits the continuation of this type of employer "pick up" of the employee contribution after the expiration of existing bargaining agreements, in this case after June 30, 2014. A few CSU employees are in management positions in the POFF category and contribute 8 percent of pay less a Social Security exclusion. Finally, a relatively small number of CSU employees are in CalPERS "State Safety" category and contribute 6 percent of pay less a Social Security exclusion.

As California entered the 21st Century the state's financial condition was an area of major concern. During the last several decades the state had experienced several major recessions and a downgrading of its credit rating. They state had also held its first recall of a standing governor and experienced a staggering array of annual deficits including a $ 42 Billion shortfall in February 2009 followed by another $ 26 Billion shortfall in the summer of the same year. In response to this crisis the legislature enacted a legislative package that included the largest state taxes in American history. (Source: Troy Senick, Who Killed California?: National Affairs, Issue #1, Fall 2009)

The state's public employee pension plan (Cal PERS) funding status from the 1980s to 2000 was a history of highs and lows. Cal PERS was about 55% funded in the

early 1980s and by 2000 was 130% funded. However by 2012 this funding level had fallen below the traditional accepted norm of 80%.

The following graphic highlights the funding status of Cal PERS by pooled agency funds



In 2012 Governor Brown announced a twelve-point pension plan which included a plan for "hybrid" pensions combining features of traditional pensions and 401(k)-style retirement accounts. The final legislation (AB 340), referred to as the Public Employee Pension Reform Act of 2013, also known as PEPRA.

PEPRA created a new defined benefit formula of 2 percent at age 62 for all new miscellaneous members with an early retirement age of 52 and a maximum benefit factor of 2.5% at age 67. It also created three new defined benefit formulas for new

safety members with an early retirement age at 50 and a maximum benefit factor at age 57. (Source: CalPERS Annual Review of Funding Levels and Risks as of June 30, 2012)

According to CSU's Vice Chancellor for Human Resources PEPRA had the following impacts on CSU:

Impact to existing and new (hired on or after 1-1-13) employees:

. *Airtime - prohibits purchases of nonqualified service; however, applications received by CalPERS prior to 1-1-13 would still be eligible.*

. *Post-retirement employment- requires a 180-day "sit-out" period before a retiree could return to work unless the appointment is:*

- *Necessary to fill a critically needed position and has been approved by a governing body in a public meeting*
- *Retiree is eligible to participate in the Faculty Early Retirement Program (FERP)*

. *Forfeit pension benefits--felony conviction committed within the scope of official duties*

. *Retroactive pension increases--prohibit retroactive pension benefit changes that apply to service performed prior to the enhancement*

Impact to employees newly hired on or after 1-1-13:

- *Retirement contribution–employee will be responsible for contributing 50% of the pension contribution rate calculated by CalPERS that is used to fund the employee's retirement benefit. The employer will pay the remaining 50%.*

- *New cap on compensation that can be applied to benefit formula--limits amount of compensation used to calculate the retirement benefit equal to the Social Security wage index limit ($110, 000 for 2012). This amount is adjusted annually based on the Consumer Price Index (CPI).*

In subsequent correspondence to its employees CSU noted that certain parts of the act were not applicable to its employees. To clarify these exceptions and the overall impact of PEPRA CSU issued a FAQ sheet in February of 2013. For example the act required that beginning on 1/1/18, the employer may unilaterally require employees to pay 50% of the total annual normal cost up to an 8% contribution rate for miscellaneous employees and an 11 or 12% contribution rate for safety employees." This provision was determined not to applicable to CSU.

Subsequent legislation (SB 13, Chapter 528, Statutes of 2013) added the following employer authority to CSU. Specifically, the amendment to PEPRA provides that:

> *"On and after January 1, 2019, the California State University may require that members pay at least 50 percent of the normal cost of benefits, provided that their contribution shall be no more than 8 percent of pay for miscellaneous members.....no more than 11 percent of pay for safety members, and no more than 13 percent of pay for peace officer/firefighter members."*

The amended legislation requires CSU to utilize the collective bargaining process with its unions in implementing this provision. Finally, the legislation states intent that any savings realized from a change in contribution rates at CSU be retained by the university. In effect, these legislative provisions represent an expectation by the State that CSU will take steps by 2019 to collectively bargain increases in employee contribution rates.

The table below provides information on the benefit formula for each membership category as well as the total normal cost and the employer and member contribution rates effective January 1, 2013 for any new CSU employees that meet the definition of new members as per PEPRA.

Employee Category	Retirement Formula	Total Normal Cost	Member Contribution	Employer Contribution Rate
State Miscellaneous Tier 1 (All employees except Public Safety)	2% @ Age 62	12.1%	Rate 6.0%	20.503%
State Safety (Limited to Intermittent Police Officers)	2% @ Age 57	18.1%	9.0%	17.503%
State POFF* (Unit 8 and MPP Public Safety	2.5% @ Age 57	20.8%	10.5%	30.297%
*The CSU will continue to pay the member contribution rate for Unit 8 employees through June 30, 2014, the expiration date of the current CBA.				

Source: Pension Reform FAQ: CSU Human Resources 2/20/2013

Pension Reform at Institutions with Their Own Governing Boards

Virginia Tech:

The Virginia Polytechnic and State University, most commonly referred to as Virginia Tech, was founded in 1872. Virginia Tech has approximately 135 campus buildings, a 2,600-acre main campus, off-campus educational facilities in six regions, a study-abroad site in Switzerland, and a 1,800-acre agriculture research farm near the main campus. The campus proper is located in the Town of Blacksburg in Montgomery County in the New River Valley and is 38 miles southwest of Roanoke.

Virginia Tech offers more than 240 undergraduate and graduate degree programs to 31,000 students and manages a research portfolio of $496 million. The university

fulfills its land-grant mission of transforming knowledge to practice through technological leadership and by fueling economic growth and job creation locally, regionally, and across Virginia. (Source: Virginia Tech Factbook: About the University)

The University offers to retirement plans based on employee eligibility as defined by the following criteria:

Classified and University Staff

Regular and restricted, full-time and part-time salaried classified, and university staff are covered by the Virginia Retirement System. Virginia Tech police officers (who are staff) are covered by the Virginia Law Officers Retirement Association (VaLORS).

Faculty

Regular and restricted, full-time and part-time faculty have the choice between the Virginia Retirement System (VRS) and an Optional Retirement Plan (ORP). Virginia Tech police officers (who are faculty) may choose to be covered by the Virginia Law Officers Retirement Association (VaLORS). Faculty members have 60 days from their initial appointment date to make this decision. (Source: Virginia Tech Human Resources: About the Virginia Retirement Systems)

Virginia Tech faculties have had access to a state retirement program administered by the Virginia Retirement System since 1952. However, until 1985, the only retirement option was the Virginia Retirement System (VRS), a defined benefit retirement program that provided retirement benefits based on length of service and final average salary. The program rewarded long service but was not designed to address the mobility or portability features attractive to faculty.

In 1985, the Commonwealth of Virginia established the defined contribution Optional Retirement Plan (ORP) to address the mobility and portability issues. The Virginia institutions of higher education, with the authorization of their Boards of Visitors, added this plan. At that time all faculty, whether administrative and professional or teaching and research, were given the option to remain in the VRS or to enroll in the ORP.

The ORP provides immediate vesting with the ultimate retirement payout based on accumulated retirement assets. Investment designations, portfolio design, and the management of the retirement contributions in a defined contribution plan rest with individual employees, working in concert with their selected vendors. The employer has the responsibility to ensure that prudent retirement investment options are available from the vendors and that individuals and vendors adhere to IRS guidelines. (Source: Virginia Tech Board of Visitors; November 7, 2011)

As of December 2010 1030 faculty and 3,514 staff participated in the VRS defined benefit plan while 2,171 faculty participated in the optional defined contribution plan.

Recent changes to VRS plans occurred during time that was comparable to the States of Michigan, Rhode Island and Utah. These changes were implemented in part

due to the fall in the value of assets held by the VRS. In 2011 the funded status of the VRS was 75.2% of accrued pension liabilities.

According to the Governor of Virginia:

> *"… we have been on a trek for several years of contributing less to the retirement system than requested by the system's actuarial studies. This happened at a time when increasing numbers of employees are nearing retirement age. The VRS has 17.6 billion in unfunded liabilities, and would need an impossible 44% return on investment just to maintain the status quo. This has culminated into a situation where by 2014 VRS will on average be funded at only 61% of its liabilities"*
>
> -Governor of Virginia,
> December 17, 2011

The following table highlights the differences between VRS actuarial rates and the funded rates from FY 1999- 2009;

Virginia Retirement System Actuarial Rates Versus Funding Rates

Fiscal Year	Actuarial Rate	Funded Rate
2009	8.02	6.23
2008	7.33	6.15
2007	7.33	5.74
2006	3.89	3.91
2005	3.89	3.91
2004	3.60	3.77
2003	3.60	0.0
2002	4.24	2.12
2001	5.22	5.22
2000	7.11	6.03
1999	7.20	5.10

Source:

http://vrsguide.gov/table3-1-1.htm

To address concerns related to the funding of VRS employee contributions were reinstated at 5% on July 1, 2010. In addition all new employees as of July 1, 2010 contributed 5% and had a different benefit formula.

Similar changes were made to the Optional Retirement Plan. For employees hired prior to July 1, 2010 the state contributes 10.4 %. Employees in this plan are not required to make mandatory contributions but mechanisms for voluntary contributions are available. For employees hired after July 1, 2010 the state contributes 8.5% and employees contribute 5% of the covered compensation.

In the summer of 2010 the VRS Board also lowered its long-term investment return assumption used for actuarial valuations from 7.5% to 7%. The board believed that this represented a more realistic appraisal of long-term returns.

On January 2014 the Virginia Retirement System began offering a new Hybrid Retirement plan. Virginia Tech employees are covered by the **Hybrid Plan** if they were hired on or after January 1, 2014, have never participated with a VRS or ORP plan, or have cashed out their VRS or ORP account. This plan is comprised of both a defined benefit (DB) portion and a defined contribution (DC) portion. Employees are required to contribute four percent of their annual salary into the DB portion of their retirement account. The employee and employer are both required to contribute one percent to the DC portion of their retirement account. The employee has the option to contribute up to an additional four percent (in .5 percent

increments) into the DC portion of the account. Virginia Tech will match the first one percent of the employee's annual creditable compensation as well as the following one percent voluntary contribution. For each additional voluntary .5 percent contribution, Virginia Tech will match a contribution rate of .25 percent. Employees may increase/decrease contributions quarterly. Vesting occurs on the DB portion after 60 months of service. Vesting for the DC portion is based on the length of participation in the plan.

Of all new employees joining Virginia Tech as of September 24, 2014, 286 out of 343 staff and 65 out of 385 faculty hired have chosen the hybrid plan. In terms of voluntary contributions 37 out of 351 employees have made voluntary contributions. The percent of voluntary contributions have ranged from 1%(1 faculty and 4 staff) to 4%(8 faculty and 23 staff)

After all the changes that have occurred over the period 2010 to 2014 the current configurations of the defined benefit plans at Virginia Tech are as follows;

VRS PLAN 1	VRS PLAN 2	HYBRID RETIREMENT PLAN
About VRS Plan 1 VRS Plan 1 is a defined benefit plan. The retirement benefit is based on your age, creditable service and average final compensation at retirement using a formula. You are in VRS Plan 1 if your membership date is before July 1, 2010, and you were vested as of January 1, 2013.	**About VRS Plan 2** VRS Plan 2 is a defined benefit plan. The retirement benefit is based on your age, creditable service and average final compensation at retirement using a formula. You are in VRS Plan 2 if your membership date is on or after July 1, 2010, or your membership date is before July 1, 2010, and you were not vested as of January 1, 2013.	**About the Hybrid Retirement Plan** The Hybrid Retirement Plan combines the features of a defined benefit plan and a defined contribution plan. The plan applies to most members hired on or after January 1, 2014, and to VRS Plan 1 and VRS Plan 2 members who are eligible to opt into the plan during a special election window. (See "Eligible Members" on page 2.) • The defined benefit is based on your age, creditable service and average final compensation at retirement using a formula. • The benefit from the defined contribution plan depends on the contributions made to the plan and the investment performance of those contributions. • In addition to the monthly benefit payment payable from the defined benefit plan at retirement, you may start receiving distributions from the balance in your defined contribution account, reflecting the contributions, investment gains or losses, and any required fees.
Retirement Contributions You contribute up to 5% of your compensation each month to your member contribution account through a pre-tax salary reduction. Some school divisions and political subdivisions elected to phase in the required 5% member contribution; all employees will be paying the full 5% by July 1, 2016. Your contributions are tax-deferred until you withdraw them as part of your retirement benefit or as a refund. Your employer makes a separate contribution to VRS for all covered employees. VRS invests contributions to provide for your future benefit payment.	**Retirement Contributions** Same as VRS Plan 1.	**Retirement Contributions** Your retirement benefit is funded through mandatory and voluntary contributions made by you and your employer to both the defined benefit and the defined contribution components of the plan. Mandatory contributions are based on a percentage of your creditable compensation and are required from both you and your employer. Additionally, you may choose to make voluntary contributions of more than the mandatory amount to the defined contribution component of the plan, and your employer is required to match those voluntary contributions according to specified percentages.

VI: Observations and Conclusions:

Based on a review of the literature related to pension reform, recent survey data and site visit findings a number of observations can be made concerning pension reform in higher education:

- Pension reform is a balancing act between the need of an employer, whether it be a state, a university system or an institution, to limit its liability for pension

obligations and the need for employees and retirees to be assured that funds are available to provide the benefits that they were promised both in the past and in the future.

- All concerned parties must understand the trade-offs associated with various approaches to pension reform. For example the continuation of a defined benefit plan may involve increased employee and employer contributions and a revision to various aspects of the plan such as vesting requirements, retirement age and other post-retirement benefits such as health care.

- Communication on the need for pension reform must be provided to all segments that will be affected by any changes or reforms. Good communication both before, during and after pension reforms are critical to insure that all affected parties understand the need for change and how they will be affected by the proposed reforms

- Part of the communication plan should include a clear plan for addressing current and future pension obligations.

- The following approaches appear to be the most common pension reform strategies used by states, higher education systems and hospitals;

- Freeze the defined benefit pension plan and transition to a defined contribution plan;
- Increase voluntary employer cash contributions to the plan;
- Offer a hybrid retirement plan;
- Introduce structural modifications to an active plan;
- Change investment allocations of pension assets;
- Issue pension funding bonds or private placement borrowing
- Terminate a defined benefit pension plan.

(Source: Top seven Strategies Not-for-Profit Hospital Risk Mitigation Strategies for Rising Pension Burdens: Moody's Investor's Service, May 20, 2013)

- Pension reform is not simply a choice between defined benefit and defined contribution systems. As highlighted in the case of the University of California System and the University of Missouri not only prudent financial management but also the institutional culture and needs of all affected parties should determine the ultimate approach.

- The issue of predictable employer liability is a key issue for providers of pension systems. As in the case of the states of Michigan, Utah and Rhode Island there is a preference for predictability in current funding obligations versus future liabilities and their associated uncertainties.

- Colleges and Universities that are part of state retirement systems are not able to directly affect the various components of their retirement systems but are

only one of many state agencies that participate in the program. Therefore making changes results in collaborations and consensus building among multiple partners and the state.

- Transition Costs frequently deter employers from phasing out their defined benefit pension plans. These costs can be significant given the size of the plan's current liability and can involve lump sum take-up rates and funding levels. According to Moody's Investor Services:

> *" There are usually upfront costs and liquidity required to bring the plan to a fully funded status before termination. In some cases, debt is issued to improve the funded position. "*

On July 6, 2012 the Moving Ahead for Progress in the 21st Century (MAP-21) Act was signed into federal law. While the law was centered on highway and transportation aid and projects, the law also includes provisions for private single employer defined benefit pension plans. According to Moody's

> *" Under ERISA regulation and Pension Act of 2006, the discount rate used to calculate the present value of pension liabilities for contribution purposes is a smoothed two year rate of long term high-quality corporate bond yields that is published by the Internal Revenue Service. Under the new MAP-21 guidelines, the discount rate assumes a 25 –year average, which notably increases the discount rate and lowers the minimum funding requirements.*

- Pensions need to be considered in the context of all benefit commitments to three constituent groups;
    i. New employees
    ii. Current or active employees and
    iii. Retirees (COLA and health benefits)

The degree to which these benefits need to be continued has been the subject of several legal battles in both Rhode Island and Illinois. As noted earlier a recent court case a Rhode Island Superior Court judge ruled that a pending agreement between the City of Providence and its public safety retirees regarding pension and post-employment benefit reforms was "fair and reasonable." In Arizona however:

> "*the state's Supreme Court overturned 2011 pension reforms that, among other things, sought to curb expensive annual cost-of-living increases for judges, legislators, and municipal public-safety workers. Though courts in other places have ruled that retirees have no right to annual cost-of-living increases, the Arizona high court ordered the state to reinstate the 4 percent increases and pay retirees back for payments that the pension system had missed. In restoring the payments, the court ignored the distress of the pension system, which is only 67 percent funded*"
>
> **Source**: Steven Malanga, The Fiscal Times, March 30, 2015

In Illinois state officials are

> *"waiting a ruling from the state's Supreme Court on a suit by workers seeking to overturn the legislature's 2013 pension reforms. If the court, which has previously refused to allow any changes to retirement plans for retirees or current workers, throws out the reforms, Illinois will face $145 billion in higher taxes over the next three decades just to pay off the debt, according to a report by the Civic Committee of Chicago."*
>
> Source: Steven Malanga, The Fiscal Times, March 30, 2015

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