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MISSOURI'S CHALLENGE: MANAGING LONG-TERM EMPLOYEE BENEFIT COSTS

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EXECUTIVE SUMMARY

The Missouri public pension system currently faces serious long-term financial challenges. Missouri taxpayers are facing compound problems regarding the state's ability to manage effectively both defined benefit public pension and retiree medical liabilities. While current payments to retirees are not in jeopardy, the emerging cost patterns to both current and future members and taxpayers will be predicated upon future asset growth and favorable health care cost trends, both of which present significant risks to taxpayers.

Unfortunately, many of the existing liabilities identified have already been deferred well into the future, and any asset losses will further increase costs just as recognized future asset gains will decrease costs. The assumed annual asset long-term expected return rates for the plans studied range from 8.0 percent to 8.5 percent.

This study serves as a primer, and analyzes the financial position of the major public pension systems in Missouri as of July 1, 2007. While the July 1, 2008, actuarial reports are being compiled, such reports will not reflect the more recent and significant widespread financial decline of assets. As such, the conclusions in this paper should be read with this fact in mind.

Retiree medical obligations are also examined, given the required changes in accounting treatment under Government Accounting Standards Board (GASB) Statements 43 and 45. This change effectively requires public entities to quantify and account for current and future benefits in a manner generally similar to pensions.

Given that, effectively, these employee benefits plans are highly political institutions, any reform efforts will prove difficult. Three important goals should be to have benefit costs that are current, predictable, and affordable.

When comparing the major Missouri public pension programs to the private pension programs of 18 major Missouri employers, three conclusions

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are evident. First, many employers, both in Missouri and nationwide, have reduced or eliminated defined benefit plans in favor of defined contribution plans. Second, Missouri's pension benefits and retiree medical plans are on average much more generous than private-sector benefits in the state. Third, the major public pension programs currently have a funded ratio below the 100 percent level. This creates the potential burden of heavy legacy costs, which will almost certainly be borne primarily by a future generation of taxpayers. In contrast, private-sector pension plans are now required to be at least 100-percent funded over no more than a seven-year period.

The author hopes that this paper will educate and provide an increased public awareness for informed action about this important set of topics.

INTRODUCTION

This review analyzes the design of the major public pension and retiree medical plans in Missouri and identifies the long-term fiscal challenges facing taxpayers. While the pension and retiree health care system has some favorable attributes, particularly with respect to the employee/employer cost-sharing formulas, many long-term costs are open-ended. Citizens are facing the prospects of perpetual amounts of long-term liabilities, running into billions of dollars. The only reasonable means of relief will be a combination of superior investment returns and increased taxpayer contributions. If current trends continue unabated, such liabilities will become significant legacy costs borne by the next generation of employees and taxpayers. (For an outline of basic concepts in pension funding, please see Appendix A.)

Despite the strengthened funding requirements and other well-intended legislative reforms[1] affecting Missouri public pension programs passed in 2007, absent further reform it is highly unlikely that future pension and retiree medical programs can achieve a long-term cost profile that is current, affordable and predictable.

The basic problem is that both pension and retiree medical programs involve major long-term commitments, and policymakers have chosen, both directly and indirectly, to effectively defer significant costs well beyond the expected retirement dates of those employees retiring now and in the future. The standard should be to keep the funding current with respect to the pattern in which benefits are being earned. For the purposes of this paper, "current" is defined as a funding strategy involving a benefit program, such as pension or retiree medical, in which the expected retirement liability is fully funded or "paid-up" prior to an individual member's retirement. Because we are considering large groups, these concepts should be considered in the aggregate.

Any complete remedy will likely entail further legislative action if Missouri is to achieve a goal of staying current with its future benefit obligations.

Proper employee benefit design and financing is complicated by certain pension and retiree medical plan provisions which are generous when compared to those provided by a representative group of major employers in Missouri. This challenge is further

exacerbated by a volatile economic environment affecting every facet of the state's economy, from asset investment returns to health care costs. Such volatility makes it harder to achieve cost patterns that are predictable and affordable. Given the aging work force and increased life expectancies, the burden of these deferred obligations will affect all members of society.

Scope of the Review

This paper reviews the benefit structure and financial profiles of the following four plans:

- Missouri State Employees Retirement System (MOSERS)
- Public School Retirement System of Missouri (PSRS)
- Public Education Employee Retirement System of Missouri (PEERS)
- Missouri Consolidated Health Care Plan (MCHCP), with respect to the retiree medical program

The purpose of this paper is to:

- educate the public about the major Missouri public pension and retiree medical plans and the financing of these benefits programs;
- promote sound and necessary public policy in developing competitive employee benefit programs throughout the state;
- benchmark the major statewide public pension and retiree medical programs in Missouri to the salaried employee benefit practices of a representative group of Missouri employers;
- identify current and emerging costs trends relevant to the financing of these benefits.

The scope of this paper does not entail:

- a comprehensive review of all benefit plans affecting all public employees in Missouri;
- a review of the administrators of employee benefit plans, or any related investment policies;
- an analysis of the reasonableness of aggregate pay and benefit levels afforded to public and private employees in Missouri. The pay, benefit levels and costs of public employees need to be combined, measured and reconciled with the standards of the competitive marketplace in a way that is consistent with the taxpayers' ability to pay; such an analysis, while very relevant, cannot be conducted here.

To properly analyze these employee benefit plans, the author reviewed the salaried benefit practices of 18 major Missouri employers[2] as reported in a national survey compiled by Hewitt Associates. To facilitate the analysis, only Missouri-based employers were used to represent the labor market; theirs are the benefit practices that should be used to design plans affordable to Missouri taxpayers.

GENERAL OBSERVATIONS

GASB 45 and Other Post-Employment Benefits

A significant accounting change affecting retiree medical plans is being mandated by Government Accounting Standards Board Statement 45 (GASB 45), which will require advance accounting recognition of other post-

The transition of retiree medical accounting from a pay-as-you-go system to a more pension-type accounting will only increase near-term financial pressures.

A review of the benefit provisions of a group of major salaried employers in Missouri does not yield a favorable comparison with public benefit provisions.

employment benefits (OPEB), the principal component of which is retiree medical benefits. The transition of retiree medical accounting from a pay-as-you-go system to a more pension-type accounting will only increase near-term financial pressures. While GASB 45 does not dictate funding policies, the state has allocated an additional $15 million in the prior fiscal year toward funding this obligation to state employees participating in the MCHCP. This amount is over and above the pay-as-you-go cost, estimated to be about $60 million.

However, MCHCP represents only a portion of the entire statewide GASB 45 liability. Given that retiree medical benefits for public school employees are the responsibility of the local school districts, it is an open question how these various entities will revise their funding and plan-design policies to comply with the new accounting requirement. Local practices could vary widely, raising many fiscal questions for taxpayers and uncertainty about benefit levels for retirees and transferring employees.

A key question is how much liability is being deferred under any pension and retiree medical funding strategy. This issue is relevant at all levels of state government, especially with respect to retiree medical plans. While superior asset growth has the potential to help future pension costs to a significant extent, this will not be possible for retiree medical plans given the absence of prior-funding practices.

Benchmarking Comparison

A review of the benefit provisions of a group of major salaried employers in Missouri does not yield a favorable comparison with public benefit provisions. The analysis reveals a higher value and as expected, a higher cost in the employee benefit component of the total pay package provided to public employees. As noted, a comprehensive review of the total compensation and benefits afforded to all public employees is beyond the scope of this paper.

During the past 15 years, the problems of predictability and affordability of employee benefit costs have manifested themselves in the private sector as well. Usually, private companies have taken the necessary steps to develop competitive plans with current, affordable and predictable costs. Examples are evident in the conversion from defined benefit plans to defined contribution plans and in the significant changes affecting retiree medical plans. Considering the long-term cost implications, similar steps must be taken in designing employee benefit programs at all levels of government in Missouri. Otherwise, the question is whether the taxpayers who must underwrite these programs in both the short-term and long-term can accept existing benefit levels and the attendant costs.

Recent State Pension Legislative Reforms

Policymakers are aware of the issues facing public pension and retiree medical systems throughout Missouri.

Many pension reforms were enacted in 2007,[3] principally by Senate Bill 406. This legislation reformed many aspects of the 120 defined-benefit plans in the state public pension system.[4] Certain provisions sought to ensure that pension plans are better funded, and that minimum financial criteria are met when instituting benefit improvements.

One reform imposes a certain limit on earnings used in the computation of pension benefits for individuals nearing retirement in PSRS and PEERS. Another permits a pension plan that is 80 percent current in its asset/liabilities ratio to increase benefits only if such enhancement does not cause this ratio to fall below 75 percent.

Any funding shortfall, i.e., the shortfall incurred by a funded ratio below 100 percent, must ultimately be made up by a combination of additional employee and/or taxpayer contributions and asset returns in excess of the expected target levels.

It is noteworthy that in The (Federal) Pension Protection Act of 2006, private pension plans are now required to accelerate funding to achieve a 100-percent funded ratio (based on a uniform standard of assumptions) during the next seven years, in accordance with a legislated schedule. The interest rate assumption and actuarial cost method used to develop the pattern of costs are both mandated by this act. Asset values used to determine contribution rates must be averaged over a period no longer than two years.

It is reasonable to inquire why such a 100-percent financial standard should not be considered appropriate for public pension plans, as well. Such a requirement would probably force near-term costs (and taxes) to rise, resulting in an important public policy debate over current and future benefit levels and the advisability of keeping funding current, predictable and affordable. Many public pension advocates feel that a plan that is 80-percent current (as computed by a standard unique to the particular entity) in its ratio of assets to liabilities is a sufficient standard, given the perpetual life of the government entity. But the remaining 20 percent must be funded eventually, along with the cost of pension benefits not yet earned.

Funding Retiree Medical Benefit Plans

Even more troubling, only a small portion of the current liabilities of many retiree medical plans is actually funded. As noted, this deficit must be paid off at some point, and the benefits not yet earned must be funded. This will be difficult. Based on data provided by MCHCP, a funding policy has been adopted to address this retiree medical liability. By 2012, nevertheless, the plan is projected to have funded only 20 percent of its accrued liabilities.[4] Even more funding will be needed for active employees who have not yet retired, as only a portion of their liability is reflected in the accrued liability.

Nationally, many public entities do not intend to pre-fund their GASB 45 obligations. The state of Missouri should be recognized for initiating pre-funding of these liabilities at the state level. Such funding decisions also exist at the city and local levels.

Any funding shortfall, i.e., the shortfall incurred by a funded ratio below 100 percent, must ultimately be made up by a combination of additional employee and/or taxpayer contributions and asset returns in excess of the expected target levels.

Based on a June 9, 2006, presentation by MCHCP, the FY 2008 unfunded liability is projected to be $1.2 billion.

Nonetheless, a 30-year funding horizon (used by virtually all plans that pre-fund their obligations) still defers significant costs into the future. While some may wish to frame this in a relative context versus other public entities with even worse financial profiles, such comparisons do not alter the underlying obligations.

Unfunded Liabilities — Pension and Other Post-Employment Benefit Plans (Under GASB 45)

Table 1 summarizes the unfunded pension liability (for benefits already earned) of the major pension plans in Missouri as of June 30, 2007, the most recently published valuation results.

Given that pension assets are frequently valued on the basis of a multi-year rolling average, the unfunded liability is improved by using the actual market value of assets on June 30, 2007. On this basis, the calculation results in an unfunded liability of approximately $3.9 billion.

Equally important is the issue of properly quantifying the state's GASB 45 unfunded liability. Based on a June 9, 2006, presentation by MCHCP, the FY 2008 unfunded liability is projected to be $1.2 billion. These figures are predicated on a base of 43,221 active subscribers, plus the more than 12,000 retiree subscribers currently receiving care from this plan.[6] If one considers the fact that the three largest pension plans have more than 180,000 active employees and approximately 86,000 retirees and beneficiaries, it is clear that most of the GASB 45 liability is incurred by various political subdivisions throughout the state and is not reflected in the MCHCP calculations.

Table 1: Unfunded Pension Liability

Pension Plan	Unfunded Liability ($ Billions)
MOSERS	$1.123
PSRS	$5.348
PEERS	$.501
Total	**$6.972**

Benchmarking vs. Missouri Employers

To compare the major Missouri public pension and retiree medical plans, the author consulted the 2006 national salaried employee benefit survey of major employers, including 18 Missouri employers, conducted annually by Hewitt Associates. More recent changes are not reflected in this survey. The plans of the 18 private Missouri employers are compared to MOSERS (Missouri State Employees' Retirement System), PSRS (Public School Retirement System of Missouri) and PEERS (Public Education Employees Retirement System), based on data from their June 30, 2007, actuarial valuation reports.

18 Major Missouri Employers — Salaried Employees' Benefits (2006 Responses)

Pensions — Defined Benefit Plans (DB) (DB plans are based on a formula and generally payable as an annuity. Periodic contributions and investment earnings of the funds provide the benefits payable to participants.)

- Nine (50 percent) had a defined benefit cash-balance[7] or pension equity plan.[8]
- Six (33 percent) did not have a defined benefit plan.
- Two (11 percent) had a final average pay defined benefit plan.
- One (5 percent) had frozen or discontinued their plans.
- No plan reported automatic pension COLA provisions.
- No plan required employee contributions.

Pensions — Defined Contribution Plans (DC)[9]

- Eighteen companies (100 percent) had at least one defined contribution plan.
- The primary DC plan, typically a 401(k) plan, had an average employer cost of 3.85 percent of pay.
- Seven companies (38 percent) had other DC plans (including profit sharing plans with a variable match) averaging 1.95 percent of pay.
- Combined average employer contributions to all DC plans was 5.80 percent of pay.

Watson-Wyatt National Survey of Retirement Plan Trends

Watson-Wyatt surveyed 300 employers that have sponsored a DB pension plan since 1996, have pension assets of at least $100 million and are on either the *FORTUNE* 1,000 list or the *Pensions and Investments* 1,000 list. The survey was conducted from fall 2006 through spring 2007. The data were collected by Watson-Wyatt consultants or directly from the participating organizations. The results address plan designs for newly hired, salaried employees.

Changes in retirement policies during the last 10 years:

- 36 percent made no change;
- 24 percent changed to hybrid plan;[10]
- 22 percent closed plan;
- 17 percent froze plan.

The Watson-Wyatt survey indicates that the percentage of companies sponsoring a final average pay plan fell from 79 percent to 26 percent during the past 10 years.

Considering the Missouri-specific employer data in light of national trends makes clear that there is a shift away from final pay plans to either: (1) other types of defined benefit plans (such as hybrid plans), which are more predicated on career earnings; or, (2) defined contribution plans. Both strategies are intended to provide competitive benefits while achieving more predictable, affordable and current cost patterns.

Comments About Retirement Plan Design in Missouri

General Comments

The trend in retirement plan design among many Missouri and national employers is toward achieving affordable and predictable costs while ensuring that these costs are kept current. This trend, by itself, supports the concept of a defined contribution structure, given that many defined benefit plans struggle to achieve just one of these criteria.

The trend in retirement plan design among many Missouri and national employers is toward achieving affordable and predictable costs while ensuring that these costs are kept current.

Most plans surveyed in the Missouri marketplace do not require employee contributions for their defined benefit plans, but their corresponding benefits are also lower.

Nationally, the broader marketplace is attempting to achieve an annual employer cost profile of 5 percent to 7 percent of pay in retirement costs in either DB or DC plans. While this is evident among the private Missouri employers surveyed, it is sometimes seen in the public sector as well. For example, Michigan state employees hired after April 1, 1997, were required to join a defined contribution plan that has a maximum employer match of 7 percent of pay. More recently, the state of Alaska implemented a mandatory defined contribution plan for all new state and public school employees effective July 1, 2006; the employer match is 5 percent of pay.

In general, the major drivers of value in defined benefit plans — and therefore, of the costs of these plans — are (in no special order):

- the level of any required employee contribution;
- the benefit formula annual multiplier;
- the definition of earnings used in determining pensions;
- the unreduced early retirement provisions;
- the presence of a retiree cost-of-living adjustment (COLA).

While there are many permutations and combinations in which these provisions can be configured, ultimately the choice of design provisions should support the underlying goals of the pension program. Often such goals in public employee benefit settings tend to minimize the importance of state, regional and local market trends where they compete for employees in favor of benchmarking only to other public pension systems in other states. Such comparisons can easily lead to design provisions resulting in costs which are not affordable, predictable or current.

Missouri Public Pension Plans

Members of the three major pension plans (MOSERS, PSRS, and PEERS) fall into two broad categories: those who participate in Social Security and those who do not. Most members of MOSERS and PEERS participate; members of PSRS do not. This is significant, given that the design of pension plans for members who do not participate in Social Security customarily provides for a higher level of benefits, and, as would be expected, results in higher costs. All other major benefit provisions of the three plans are generally similar.

Note that MOSERS revised its benefit formula for members entering on or after July 1, 2000 (with certain exceptions); it refers to these members as “MOSERS 2000” members to contrast them with members still subject to the earlier provisions.

Below are brief comments about the five major benefit provisions of these three plans. Further details of these provisions are provided in Appendix B.

Required Employee Contributions

Unlike members of PSRS and PEERS, members of MOSERS are not required to make employee contributions to their pension plan. Most plans surveyed in the Missouri marketplace do not require employee contributions for their defined benefit plans, but their corresponding benefits are also lower. Most benefit

provisions of MOSERS are comparable to those of PSRS and PEERS, with due consideration given to Social Security participation. However, according to the most recent actuarial reports, the net employer cost (after any required employee contributions) of MOSERS is 12.53 percent of pay, well outside the 5-percent to 7-percent target range. PEERS compares favorably at 6 percent of pay. PSRS employer costs are 12.50 percent of pay, which is reasonable given the absence of Social Security benefits.[11] Moreover, by design, PEERS and PSRS share costs evenly between employee and employer.

Annual Benefit Multiplier (Times Years of Service)

The annual benefit formula multipliers for Social Security members participating in PEERS and MOSERS are very similar — in the range of 1.61 percent to 1.7 percent. A typical noncontributory final pay plan in the private sector (where they still exist) is generally in the range of 1.0 percent to 1.2 percent per annum. The annual multiplier for PSRS (and other non-Social Security participants in MOSERS) is 2.5 percent, in recognition of the absence of Social Security participation.

Certian members retiring between the ages of 50 and 62 receive a significant supplement (provided that age and service total at least 80 years). This supplement is based on a multiplier of 0.8 percent (times years of service), and is paid until a member qualifies for Social Security. Such a benefit is generous by most established measures and is not found in any of the Missouri companies surveyed.

Average Earnings Used in Determining Pensions

In each of the three plans, average earnings are consistently defined as the average earnings of the highest consecutive three-year period. Nationally, where final average pay plans exist, the period ranges from three to five years.

Unreduced Early Retirement Provisions

The provisions of these three Missouri plans are more generous than those of private-sector plans. PSRS and PEERS have 30-years-of-service criteria that permit an unreduced pension at any age. Otherwise, the plans require a retirement age of 60 with five years of service ("60/5"), or that age and service total at least 80 ("rule of 80"). For example, a 55/25 employee can retire with no reduction in the earned accrued pension benefit. MOSERS also uses the rule of 80, along with a 65/5 requirement (or 62/5 for "MOSERS 2000" employees). Other early retirement provisions exist for other categories of state employees.

Although unreduced early retirement provisions were not included in the Missouri employer survey information, such salaried plans have traditionally required that employees retire at ages 60 to 62, with 25 to 30 years of service, to qualify for unreduced retirement benefits.

Pension COLAs

All three plans offer annual pension COLAs of approximately 80 percent of the Consumer Price Index (CPI), not to exceed 5 percent per year.

Although most public plans offer COLAs, most private plans discontinued this practice more than 15 years ago in response to increasing pension costs and the rising costs of retiree medical coverage.

Responsible pension funding should establish costs that are current, reasonable, and predictable. Moreover, pension costs should be fully recognized over the working career of the employee.

Although most public plans offer COLAs, most private plans discontinued this practice more than 15 years ago in response to increasing pension costs and the rising costs of retiree medical coverage. Given earlier retirement patterns and longer life expectancies, such provisions can easily add 30 percent to the costs of a pension plan.

IN SUMMARY

These five provisions can have a compounding impact on pension costs. Unreduced early retirement benefits in particular are significant, because they not only provide pensions for more years (with annual COLAs, as well), but also compress the funding period for pension costs over a shorter interval.

FINANCIAL STATUS OF MISSOURI PENSION PLANS — MOSERS, PSRS AND PEERS

BASED ON THE JUNE 30, 2007, ACTUARIAL REPORTS

General Comments

Responsible pension funding should establish costs that are current, reasonable, and predictable. Moreover, pension costs should be fully recognized over the working career of the employee, such that (in the aggregate) when individuals retire, their future retirement payouts are effectively "paid up."

To clarify:

Current costs are those in which the funding matches the accumulated obligations, based on the actuarial cost standard employed. These plans have chosen a commonly used actuarial cost method that attempts to establish a pattern of costs relatively constant as a percentage of payroll during the career of the employee. The goal should be to achieve a 100-percent ratio of assets to accrued liabilities (which are obligations earned to date). This is separate from, and in addition to, the annual cost of the value of benefits earned during the current year, commonly referred to as the normal cost.

Reasonable costs are those in which total annual employer costs (net of employee contributions) fall within the range of 5 percent to 7 percent of payroll. The author suggests that this range be approximately 10 percent to 12 percent of payroll for non–Social Security participants.

Predictable costs are those constituting a relatively stable percentage of payroll.

APPLICATION TO MISSOURI PENSION PLANS

Actuarial Assumptions

Although the three pension plans are fairly similar in design, a review of underlying actuarial assumptions shows that they vary with respect to financing. For example, MOSERS uses an assumed interest rate of 8.5 percent, whereas PSRS and PEERS use an assumed interest rate of 8 percent. Such a difference is significant. This issue is not a matter of right versus wrong, as a higher investment assumption generates lower expected contributions, and vice versa.

This raises the question of why the plans have different investment expectations. The contributions to MOSERS would increase or the contributions to PSRS and PEERS would decrease if they were to standardize the investment assumptions at either an 8-percent or 8.5-percent level. Actual investment experience will ultimately influence the actual pattern of contributions to any plan.

Both plans also use different future pay assumptions for their respective workforces based on their long-term expectations. MOSERS uses an expected range of increase of 4 percent to 6.7 percent per year, whereas PSRS and PEERS use an expected range of 5 percent to 10.25 percent. Such percentages would include pay for promotions and other factors involving career progression, in addition to recurring annual increases.

While it is beyond the scope of this study to evaluate the appropriateness of these assumptions, it is noteworthy that such differences do exist and are significant factors in the development and comparability of contribution rates and funding levels (assets versus liabilities). Obviously, other actuarial assumptions exist that are not discussed in this report.

Contribution and Funding Practices

PSRS and PEERS contain funding features under which the annual recommended total contribution is divided evenly between the employee and the employer (i.e., the taxpayer). The overall annual increase in total contributions is limited to a 1-percent increase in PSRS, and 0.5 percent for PEERS. As noted earlier, MOSERS requires no employee contribution.

Based on the ratio of the actuarial value of assets[12] to the accrued liabilities, the plans show funded ratios of 86.8 percent for MOSERS, 83.2 percent for PEERS, and 83.5 percent for PSRS. However, given the differences in actuarial assumptions, particularly the interest assumption, a precise comparison is not possible between MOSERS and the two other plans. While the proper goal is to be current at a 100 percent funded ratio, attaining such a goal will require increased funding and/or superior investment. This will not likely happen under the funding policies now governing the plans.

A summary of the financial status and demographics of each of the three plans is shown in Appendix C.

FUNDING MECHANICS: THE BASICS

Pension plans generally are funded such that the annual contribution is the sum of two parts. The first part is the annual “normal” cost, which represents the cost of benefits earned by active participants in the current year. The second part is an installment payment on any unfunded liabilities (similar to a mortgage).

Unfunded liabilities occur when the accumulated value of assets is less than the accrued liability that has been earned by active and retired plan members. Each time an actuarial valuation is performed, the process yields a normal cost, and any resulting unfunded liability is recomputed. Contribution figures are then updated for that year.

Unfunded liabilities occur when the accumulated value of assets is less than the accrued liability that has been earned by active and retired plan members.

The 30-year amortization is effectively reset each year according to an "open" amortization period, which means that the liability will never be fully paid off, but is instead continually reset, with a new 30-year period beginning each year.

Table 2: Average Age Summary

	MOSERS	PSRS	PEERS
Average Age	45.0	46.6	42.3

To determine an appropriate funding period for the unfunded liability, it is important to review the retirement assumptions of the respective plans. Based on the valuation data, it is reasonable to assume that the average member of any of the three plans will retire at about age 60. (Although there are clear incentives to retire early, not all employees retire at the earliest possible date, just as some employees work beyond age 65.)

Table 2 shows the average ages of active members of the various plans, based on the most recent valuation reports.

Given that the average age in the workforce is between 42 and 47, the average duration until retirement is between 13 to 18 years, depending on the particular plan.

However, these plans currently use a 30-year amortization schedule, meaning that liabilities are "on average" not fully amortized at retirement. This practice essentially assigns part of the cost of the retiring employee to the next generation of employees and taxpayers. This is reasonably significant in the public school plans, where costs are shared equally between employee and employer. Compounding the problem, the 30-year amortization is effectively reset each year according to an "open" amortization period, which means that the liability will never be fully paid off, but is instead continually reset, with a new 30-year period beginning each year.

Such an approach understates current contributions to the plan, while deferring costs well beyond the point at which members on average retire.

One remedy would be to close the perpetual amortization period by establishing a fixed payoff date, and by requiring a shorter period of time to make the plan more current with its obligations. This would increase the cost to both employee and employer. By statute, PSRS and PEERS have a maximum annual increase of 1 percent and 0.5 percent, respectively, which limits any increases in contribution rates.

Favorable asset gains (i.e., gains in excess of the assumed annual rates of return) will reduce this unfunded liability. So, it cannot be assumed, in spite of the "open" amortization that this liability will never decrease (or, conceivably, even be eliminated). However, the reverse is also true: declining investment returns will increase the unfunded liability.

The key point is there is wide latitude in determining how this unfunded liability is managed.

Recent Legislation in Missouri

The state deserves praise for its comprehensive pension reform, which included raising the standards applicable to the funded status of all pension plans in Missouri. Missouri lawmakers should consider further reforming the pension system to achieve a 100-percent funded status in a systematic and consistent manner.

Federal statute now requires private plans to amortize their liabilities over no more than seven years, and to achieve a funded ratio of 100 percent in accordance with federal standards. Perhaps not all such standards should govern public plans, but neither can they be ignored given the fact that the principles of sound pension funding should apply regardless of the nature of the sponsoring entity.

Other Post-Employment Benefits (OPEB)

Retiree Medical Considerations and GASB 45 Liabilities

Retiree medical plans continue to undergo significant changes affecting the design and financing of these benefits. Many of the same considerations and strategies relating to responsible pension funding are directly applicable to retiree medical funding, with the important point that any such pension-type pre-funding is not required under GASB 45.

The Missouri Consolidated Health Care Plan has quantified its OPEB obligations. This paper utilizes the data based upon a presentation dated June 9, 2006. (Such an endeavor is technically done under GASB 43, given this is the accounting rule applicable to the trusts that are used as conduits to pay OPEB benefits. GASB 45 applies to financial statements issued by employers.)

Shown below are the Hewitt survey results, followed by a Mercer national survey. Both sources reflect the decline in employer-sponsored retiree medical benefits.

18 Major Missouri Employers — Salaried Employees Benefits (2006 Responses)

Pre-Medicare Program

Coverage Availability

- Eight (44 percent) provided a continuation of active coverage.
- Three (17 percent) provided a continuation of active coverage with modifications.
- Two (11 percent) provided a special program.
- Five (28 percent) provided no coverage.

Premium Paid by Retirees in the 13 of 18 Companies Providing Coverage

- Five (38 percent) — 100 percent retiree-paid.
- Four (31 percent) — 100 percent retiree-paid, less a defined contribution amount paid by the employer.
- Four (31 percent) — other basis.

Post-Medicare Program

Coverage Availability

- Seven (39 percent) provided no coverage.
- Five (28 percent) provided a Medicare supplemental coverage.
- Five (28 percent) provided a continuation of active coverage, less Medicare coverage.
- One (6 percent) coordinated with Medicare.

Premium Paid by Retirees Within the 11 of 18 Companies Providing Coverage

Missouri lawmakers should consider further reforming the pension system to achieve a 100-percent funded status in a systematic and consistent manner.

Missouri should be acknowledged in its attempt to achieve comprehensive reform within its statewide pension system involving approximately 120 defined benefit pension plans.

- Three (27 percent) — 100 percent retiree-paid.
- Four (36 percent) — 100 percent retiree-paid, less a defined contribution amount paid by the employer.
- Four (36 percent) — other basis.

The recent Mercer National Survey of Employer-Sponsored Health Plans shown in Figure 1 reflects the decline in employer-sponsored retiree health care coverage.

Participation Criteria for Retiree Coverage Under MCHCP[13]

The following frequently asked question and response is quoted from the MCHCP website:[14]

Am I eligible to participate in an MCHCP medical plan when I retire?

You may participate in a MCHCP medical plan provided, at the time of your termination of State employment, you are:

Eligible to receive a monthly retirement benefit from either the Missouri State Employees' Retirement System or from the Public School Retirement System based on State service …

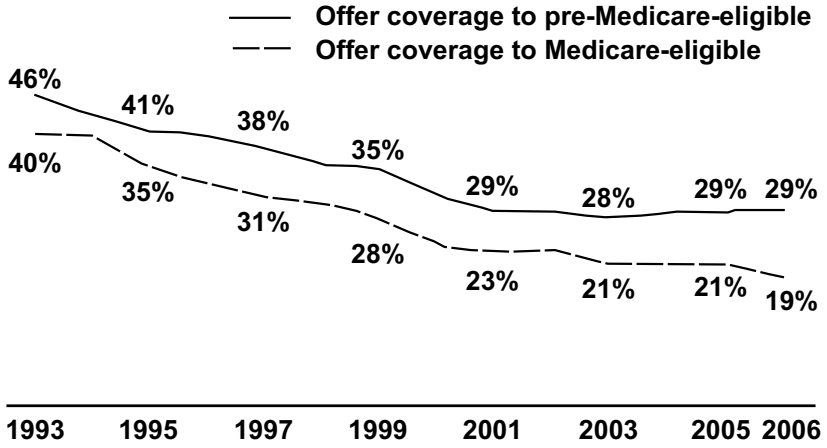
This outline of contributions made toward state employees' retirement premiums is found elsewhere on the MCHCP site:[15]

State Contribution Toward Retiree Premium

As of July 1, 2002, the contribution toward retirees' premiums is based on the amount of time an employee worked for the State.

The contribution for a retiree is calculated using the number of full years of service as reported to MCHCP by MOSERS or PSRS (if your State service is with them) times 2.5%. The maximum percentage cannot exceed 75% and is determined by State appropriations. The current maximum is 65%. After the percentage is computed, the dollar amount is figured on the low cost plan in the region where you live. Then that amount is deducted from the total premium rate leaving the amount you must pay.

Figure 1: Large Employers Drop Coverage for Medicare-Eligible Retirees in 2006



Source: Mercer's National Survey of Employee Sponsored Health Plans

Comments

MCHCP provides medical coverage for only a portion of all public employees and retirees within Missouri. Given the state contribution policy described above, it appears the state retains flexibility over the premium subsidy provided to MCHCP participants receiving retiree medical coverage. Such a provision can provide

the state with the ability to effectively manage its GASB 45 liability.[16] Other factors that impact the GASB 45 liability and that need to be effectively managed include medical plan design, eligibility criteria and investment returns.

A major part of the Missouri GASB 45 liability resides at the school district level. Similar to pensions, it appears the funding policies could likely involve another "open" amortization, with significant liabilities deferred. Whatever discretionary funding strategies are ultimately adopted, this will no doubt be part of the broader topic involving funding public education in Missouri.

Effective management of GASB 45 liability should involve:

- Quantifying the GASB 45 liability at the state and local levels, and then compiling a consolidated picture for taxpayers, who will ultimately fund these costs.
- Implementing any retiree medical program changes necessary to effectively reconcile the GASB 45 liability with the taxpayer's ability to pay, while providing a market-based benefit program.
- To the extent that the GASB 45 liability is funded, applying the same guiding principles applicable to pension funding to achieve costs that are current, affordable, and predictable.
- Requiring adequate employee contributions. Based on the 2006 analysis, for MCHCP participants in FY 2008 the state is projected to need a contribution of approximately $40M over the projected pay-as-you-go-costs of $62.5 to properly fund the GASB 45 cost.
- A synopsis of the financial status of MCHCP relative to its post-retirement benefit obligation is shown in Table 3.

CONCLUSION

Missouri policymakers have adopted a number of logical plan-design provisions that should be the basis for continuing to manage employee benefit liabilities at current, affordable and predictable levels in both the short and the long-term. Missouri should be acknowledged in its attempt to achieve comprehensive reform within its statewide pension system involving approximately 120 defined benefit pension plans.

However, special emphasis must be given to more precisely quantifying the long-term required contributions to pension plans and, in particular, retiree medical plans. Given the recent significant market declines, and acknowledging that markets are known to work in cycles, one cannot assume that future superior investment performance will be achieved and will be sufficient to mitigate financial pressures on the public pension system. This is a significant risk to plan members and taxpayers. Moreover, the only viable option in effectively managing retiree medical liabilities is through plan design, as financial engineering or just considering it "an accounting nuance" will lead to a significant liability transfer onto the next generation of employees and taxpayers.

Policymakers should quantify these obligations at the state and local level and understand the magnitude and potential risk of these plans on a statewide basis. While certain liabilities arguably reside at the local level, local entities will

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Fully funding these obligations should not be a mere theoretical construct; it should be fiscal reality.

Table 3: Missouri Retiree Medical Analysis

Census Reported in June 9, 2006 Presentation	**MCHCP**
Active Subscribers (excludes dependents)	43,221
Retirees Subscribers (excludes dependents)	
- Under age 65	4,528
- Over age 65	7,989
Total Retiree Subscribers	12,517
Total Subscribers	55,738
Total Covered Lives (including dependents)	101,970
Projected 2008 Funding estimates as reported on June 9, 2006	
Actuarial Value of Assets	$98.6M
Actuarial Liability	$1,267.3M
Unfunded Liability	$1,168.8M
Funded Ratio	7.8%
Years Remaining on Unfunded Liability Payoff	30
Normal Cost	$30.1M
Amortization Payment	$73.1M
Total Contribution	$103.3M
Pay-As-Go-Cost	$62.5M
Additional Funding Required	$40.8M

Source: June 9, 2006, MCHCP Presentation

undoubtedly look to all state taxpayers for help in meeting their fiscal needs, making reform of public pension and retiree medical plans an important issue for all policymakers.

Fully funding these obligations should not be a mere theoretical construct; it should be fiscal reality. The management of unfunded pension liabilities coupled with the elimination of open (i.e., perpetual) amortization should be a top priority, as the risks of inadequate funding will only be compounded by the impact of GASB 45. The Federal Pension Protection Act of 2006 should also be considered when developing sound policy to effectively fund long-term employee benefit liabilities.

Plan design should be benchmarked to the entire labor market and policymakers should consider standardizing pension and retiree medical benefits. They should also consider requiring a defined contribution plan for new employees that is consistent with the goals of keeping costs current, predictable and affordable — and not for purely ideological reasons. Best practices have been demonstrated in both defined benefit and defined contribution plans.

As a guideline, policymakers should eschew arguments that seek to partition the workforce of private versus public sector. They should instead closely examine the marketplace statewide to

determine competitive employee benefit practices that are consistent with the taxpayers' ability to pay.

If certain employee benefit provisions are considered obsolete or unaffordable in the private sector, how can such costs be considered affordable and commonplace in the public sector? Why are comparisons to other states so important if government entities are not, in fact, recruiting or competing with these same public entities for talent? Benchmarking to the geographical area from which the workforce is drawn would seem to be a logical way to craft effective public policy.

Both the private and public sectors must be able to attract and retain qualified talent for both the short term and the long-term. The author hopes this paper will stimulate discussion and debate and lead to improved public policy for all in Missouri.

If certain employee benefit provisions are considered obsolete or unaffordable in the private sector, how can such costs be considered affordable and commonplace in the public sector?

The true cost of a pension plan is the outflows, not the annual contributions.

APPENDIX A — PENSION FUNDING BASICS

This primer summarizes and highlights the basic concepts of pension funding. There are many variations on these basic principles and approaches that can materially affect the recommended annual employer and member contribution levels.

With this in mind, it is useful to consider the following:

1 Over the life of a pension plan, the "inflows," which consist of employer and member contributions plus investment earnings, must equal the "outflows," which consist of member benefits paid out plus any other expenses paid from the plan, such as investment fees and/or administrative fees.

2 The true cost of a pension plan is the outflows, not the annual contributions.

3 Annual pension contributions affect when and how progress is made toward achieving short-term and long-term funding goals.

4 Recommended annual contributions occur as a result of an actuarial valuation. This measurement is generally performed annually.

5 Several actuarial cost methods can be used in valuing pension plans. The primary differences among these methods pertain to the timing and patterns in which liabilities are recognized. Most public-employee pension plans use the entry-age normal cost method, which is intended to develop a level pattern of costs over the career of the workforce.

6 To develop recommended contributions, actuaries can use either the market value of assets or a market-related value, such as a rolling five-year average of assets. The value of assets used for developing recommended contributions is referred to the actuarial value of assets.

7 The present value associated with benefits earned to date is referred to as the accrued liability. Changing the actuarial assumptions will generally change the accrued liability.

8 The term "funded ratio" refers to a measure of the actuarial value of assets in relation to the accrued liability. A funded ratio of 100 percent simply means that the actuarial value of assets is equal to the liabilities earned to date. Some incorrectly assume that a ratio of 100 percent means that no future contributions to the plan are necessary.

9 The use of actuarial assumptions in the valuation process establishes a baseline for estimating future contribution levels. Actuarial assumptions do not determine the true cost of a pension plan.

10 The annual contribution is generally composed of two parts. The first part is the "normal cost," which is defined as the cost of benefits earned in a given year. The second part is the amortization payment of any unfunded liability, which results from a variety of factors — including changes in benefits, changes in assumptions, and actual experience that varies from that assumed. Each source can conceivably have a separate

amortization schedule. Generally, amortization periods can last as long as 30 years.

11 Amortization payments can also be negative, such as those occurring from a very favorable investment year. In this case, the recommended contribution would be reduced.

12 The normal costs cease when an employee is no longer active, because of retirement or other reasons. However, amortization payments can and generally do continue beyond the period in which the employee is actively employed.

13 The funding of retiree medical plans generally follows the same methodology as that of pensions. Many retiree medical plans continue to use a pay-as-you-go funding method. Unlike pension plans, retiree medical plans are not required to be pre-funded. However, many public entities are now considering pre-funding their retiree medical programs in response to Government Accounting Standards Board (GASB) Statement 45. This recently adopted statement now requires retiree medical financial statements to be prepared on a basis similar to those of pensions.

To graphically illustrate the components of pension funding, the Missouri Public School Retirement System is shown on page 23 as Figure 2. The figures are based on the June 30, 2007, report.

A funded ratio of 100 percent simply means that the actuarial value of assets is equal to the liabilities earned to date.

APPENDIX B — GENERAL OUTLINE OF PLAN PROVISIONS

(INTENDED AS A GENERAL REFERENCE)

	MOSERS (General Employees)*	MOSERS 2000 (General Employees)*	PSRS	PEERS
Normal Retirement	Age Yrs. Svc. 65** 5 60 15 48 32 Age + Service of least 80	Age Yrs. Svc. 62 5 48 32 Age + Service of least 80	Age Yrs. Svc. 60 5 Any age with 30 yrs. of service Age + Service of least 80	Age Yrs. Svc. 60 5 Any age with 30 yrs. of service Age + Service of least 80
Pensionable Earnings (PE) used in benefit formula	Highest average annual compensation (including overtime) for the three consecutive years	Highest average annual compensation (including overtime) for the three consecutive years	Highest average annual compensation (including overtime) for the three consecutive years***	Highest average annual compensation (including overtime) for the three consecutive years***
Benefit Formula - Social Security Participants	1.6% x PE x Yrs. of Credited Service	1.7% x PE x Yrs. of Credited Service		1.61% x PE x Yrs. of Credited Service
Temporary pension for those retiring between 50 and 62 (age and service = 80+)		0.8% x PE x Yrs. of Credited Service ****		0.8% x PE x Yrs. of Credited Service ****
Benefit Formula – Non Social Security Participants	2.1% x PE x Yrs. of Credited Service	2.5% x PE x Yrs. of Credited Service	2.5% x PE x Yrs. of Credited Service	
Early Retirement	Age 55 with at least 10 years of credited service	Age 57 with at least 5 years of credited service	Age 55 with at least 5 years of credited service	Age 55 with at least 5 years of credited service
Early Retirement Reduction	Actuarially reduced based on age and service	6% per year from normal retirement	Actuarially reduced from age 60	Actuarially reduced from age 60
Annual Pension COLA	Generally lesser of 80% of CPI or 5%	Lesser of 80% of CPI or 5%	Up to 5%	Up to 5%
Member Contributions	None	None	50% of PSRS contribution rate. The total is 25% of pay and may increase 1% per year.	50% of PEERS contribution rate. The total is 12% of pay and may increase 0.5% per year.

* Different provisions apply to other categories of state employees, such as elected officials.
** If active at age 65 only 4 years is required.
*** The maximum increase in annual compensation used for final average salary shall not exceed 10%.
**** Payable only until Social Security benefits commence.

APPENDIX C — MISSOURI PENSIONS FINANCIAL ANALYSIS

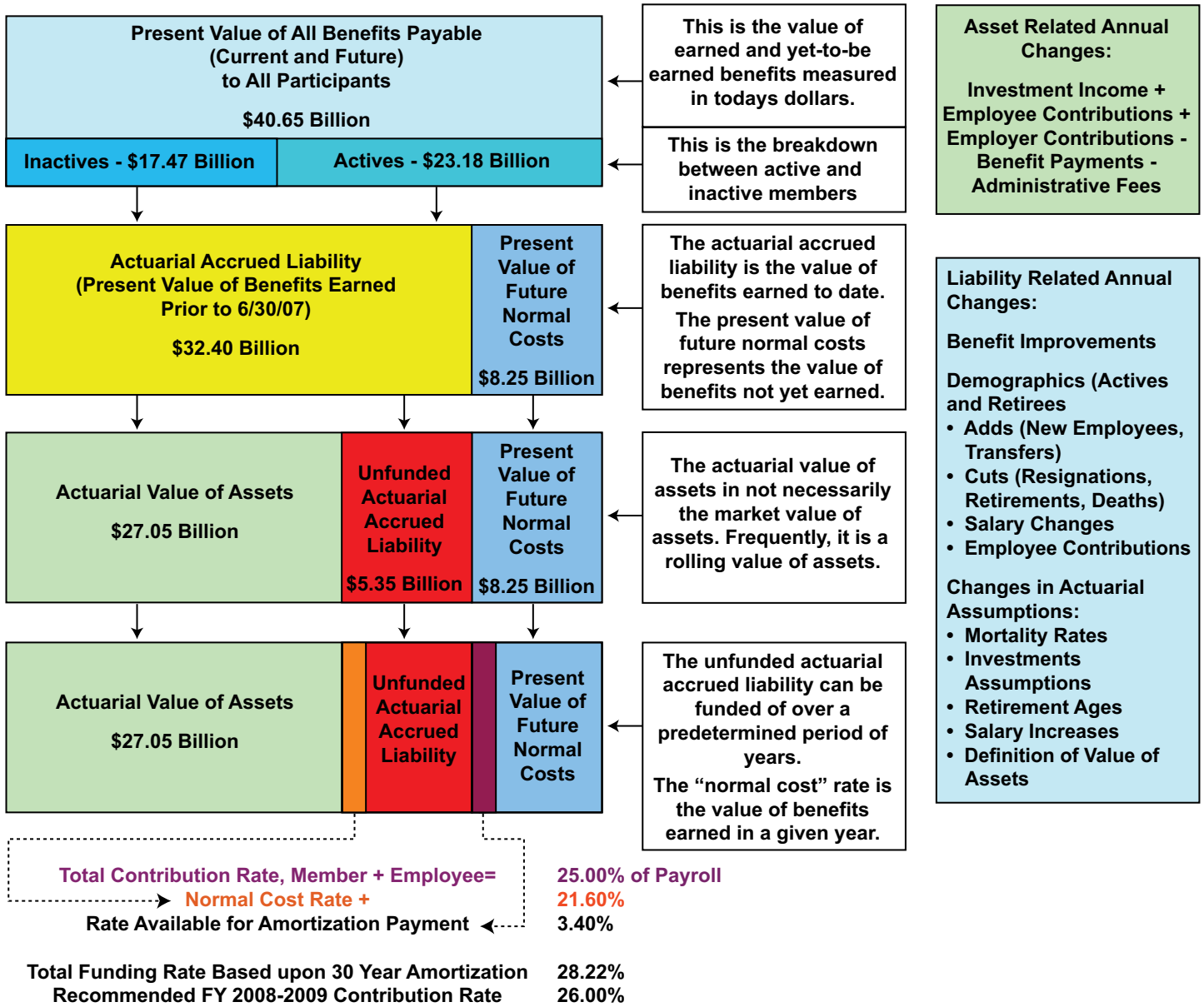
	MOSERS	PEERS	PSRS
Active Participants	54,563	49,281	77,121
1. Retirees and Beneficiaries	28,692	17,539	39,828
2. Average Ages			
3. Actives	45.0	46.6	42.3
4. Retirees and Beneficiaries	69.0	72*	68*
5. Market Value of Assets	$8,057M	$2,681M	$29,284M
6. Actuarial Value of Assets	$7,377M	$2,482M	$27,049M
7. Actuarial Liability	$8,500M	$2,983M	$32,397M
8. Unfunded Liability (7)-(6)	$1,123M	$501.3M	$5,348M
9. Funded Ratio based on the actuarial value of assets (6)/(7)	86.8%	83.2%	83.5%
10. Funded Ratio Based on the market value of assets (5)/(7)	94.8%	89.9%	90.4%
11. Years Remaining on Unfunded Liability Payoff	30 year “open”	30 year “open”	30 year “open”
12. Normal Cost	8.88%	11.04%	21.60%
13. Annual Payment on Unfunded Liability	3.65%	0.96%	3.40%
14. Total Contribution	12.53%	12.00%	25.00%
17. Employee Contributions	None	6.00%	12.50%
33. Net Employer (Taxpayer) Cost	12.53%	6.00%	12.50%
34. Payroll	$1,847M	$1,275M	$3,981M
35. Assumed Interest Rate	8.5%	8%	8%
36. Annual Salary Assumption – based on age	4.0% to 6.7%	5% to 10%	5% to 10.25%

Source Data: June 30, 2007, Actuarial Valuation
*Author’s estimate

NOTES

1. "Public Plan Update," Joint Committee on Public Employee Retirement, June 2007, p. 5. Online here: www.jcper.org/nl2007.pdf
2. The 18 major Missouri employers whose benefit packages the author reviewed are: Ameren Corporation, American Century Services, LLC, Anheuser-Busch Companies, Inc., Aquila, Inc., Black & Veatch, Commerce Bankshares, Inc., Hallmark Cards, Inc., Honeywell International Federal Manufacturing & Technologies, Kansas City Life Insurance Company, Kellwood Company, Maritz, Inc., Monsanto Company, Nestle Purina PetCare Company, RehabCare Group, Inc., St. Anthony Medical Center, St. John's Mercy Medical Center, St. Luke's Hospital, and Washington University.
3. Ibid., note 1.
4. "2008 Annual Report to the Missouri General Assembly," Joint Committee on Public Employee Retirement, p. 7. Online here: www.jcper.org/2008%20Annual%20Report.pdf
5. Page 35, here:tinyurl.com/598wym
6. Total covered lives, defined as subscribers plus dependents, were 101,970 in the June 9, 2006, presentation.
7. Cash Balance Plan Formula: A Cash Balance plan is a type of defined benefit (DB) plan designed to look like a defined contribution (DC) plan. Cash Balance plans have theoretical accounts for each active participant that, as with a DC plan, are credited with a contribution each year (such as 3 percent of pay) as well as a defined-interest credit (either a flat rate or one tied to a type of investment, such as 52-week Treasuries). Unlike a DC plan, the participants usually do not contribute to the accounts. Upon termination of employment or retirement, the account balance can usually either be paid as a lump sum or converted to an annuity based on a conversion factor described in the plan document. In practice, the basic benefit formula is written in terms of a lump sum, and most benefits are paid in the form of a lump sum and not an annuity. See: "Society of Actuaries' Survey on the Prevalence of Traditional and Hybrid Defined Benefit Pension Plans Report of Findings," March 2005. Prepared by Mathew Greenwald and Associates, Inc.
8. Pension Equity Plan Formula: A Pension Equity plan is also a type of defined benefit (DB) plan. The benefit is usually defined as a final average pay plan with the benefit defined in terms of a lump sum (e.g., lump sum = 5 percent of years of service multiplied by final average pay). Like Cash Balance plans, they have theoretical accounts for participants, but these accounts usually grow with pay increases and not interest. See: "Society of Actuaries' Survey on the Prevalence of Traditional and Hybrid Defined Benefit Pension Plans Report of Findings," March 2005. Prepared by Mathew Greenwald and Associates, Inc.
9. DC plans are based on accumulations of individual accounts. Generally, there is a formula determining annual contributions made to the fund. Funds are invested and the risk is borne by participants.
10. The term cash-balance and pension equity accounts are hybrid plans that represent newer designs of defined benefit plans. Such plans are similar to career-average pension plans, and are frequently designed to be less generous than plans based on a prior final pay formula. While some of these plans share attributes of defined-contribution plans with respect to the benefit formulas, they nonetheless are defined-benefit plans.
11. As a result, the pension plan provides a higher retirement benefit given the absence of employer and employee FICA costs.
12. This is the value of assets used principally to determine annual contributions from employees and employers. The value in this case is computed as a rolling five-year average of the actual market value of those assets. It tends to be lower than the market value when market returns have risen, and higher than market value when market returns have declined. Such an approach results in a smoothing out of yearly contributions.
13. Missouri Consolidated Health Care Plan (MCHCP) is a major provider of retiree medical benefits for public employees in Missouri.
14. Online here: tinyurl.com/4k6rq6
15. Online here: tinyurl.com/3ndtps
16. The GASB 45 liability includes all post-retirement employment benefits in addition to medical insurance coverage such as life insurance.

Figure 2: ACTUARIAL PRIMER* - Missouri PSRS Based on June 30, 2007, Actuarial Valuation



*Note: Chart not drawn to scale

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The Institute's scholars study public policy problems and develop proposals to increase opportunity for ordinary Missourians. The Institute then promotes those solutions by publishing studies, briefing papers, and other educational materials. It also forms constructive relationships with policymakers and the media to ensure that its research reaches a wide audience and has a major impact on public policy.

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